

**Consolidated Water Works**

P.O. Box 786  
Ponchatoula, LA 70454  
386-752-6729

October 16, 2024

Office of Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

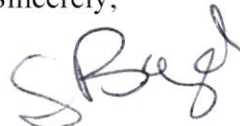
Re: Docket No .20240121-WU

Dear Sir or Madam,

Enclosed please find supplemental information and additional filing fee relating to the FPSC grandfather certificate of authorization for our service company.

If you have any questions or if additional information is needed, please contact our office at 386-752-6729 or 904-476-7979.

Sincerely,



Sherri Boyd

COM \_\_\_\_\_  
AFD \_\_\_\_\_  
APA \_\_\_\_\_  
ECO \_\_\_\_\_  
ENG 1 large map  
GCL \_\_\_\_\_  
IDM \_\_\_\_\_  
CLK \_\_\_\_\_

RECEIVED-FPSC  
2024 OCT 22 AM 11:06  
COMMISSION  
CLERK



**Consolidated Water Works**

P.O. Box 786  
Ponchatoula, LA 70454  
386-752-6729

October 16, 2024

Office of Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Re: Docket No 20240121-WU  
Clarification Statement re Business Name and Wastewater Service

Dear Sir or Madam,

The utility name stated on the application for grandfather certificate to operate water utility in Columbia County by Consolidated Water Works is listed as Consolidated Water Works, but should be Consolidated Water Works, Inc., as Consolidated Water Works, Inc. is the business name registered with the Florida Department of State's Division of Corporations.

Additionally, Consolidated Water Works, Inc. does not provide wastewater service. The properties that we provide water service to have individual septic tanks.

If you have any questions or if additional information is needed, please contact me at 904-476-7979.

Sincerely,

A handwritten signature in cursive script, appearing to read 'S. Boyd'.

Sherri Boyd



#### Azalea Park Legal Description

COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHWEST  $\frac{1}{4}$  OF THE NORTHEAST  $\frac{1}{4}$ , SECTION 19 TOWNSHIP 4 SOUTH, RANGE 17 EAST, AND RUN S.  $89^{\circ}22'00''$ E ALONG THE NORTH LINE OF SAID SOUTHWEST  $\frac{1}{4}$  OF THE NORTHEAST  $\frac{1}{4}$  410.80 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE SOUTH  $80^{\circ}22'00''$  EAST ALONG SAID NORTH LINE OF THE SOUTHWEST  $\frac{1}{4}$  OF THE NORTHWEST  $\frac{1}{4}$  995.20 FEET, THENCE S  $0^{\circ}40'00''$  E. ALONG THE EAST LINE OF SAID SOUTHWEST  $\frac{1}{4}$  OF THE NORTHEAST  $\frac{1}{2}$  1406.25 FEET, THENCE N.  $9^{\circ}02'00''$ E. PARALLEL TO STATE ROAD NO. 47 A DISTANCE OF 694.65 FEET, THENCE S.  $89^{\circ}16'30''$ W. PARALLEL TO THE SOUTH LINE OF THE SOUTHEAST  $\frac{1}{4}$  OF THE NORTHWEST  $\frac{1}{4}$  417.00 FEET. THENCE N.  $9^{\circ}02'00''$  EAST ALONG THE EAST LINE OF STATE ROAD NO. 47 A DISTANCE OF 296.00 FEET, THENCE SOUTH  $89^{\circ}22'$  EAST, PARALLEL TO SAID NORTH LINE OF THE SOUTHWEST  $\frac{1}{4}$  OF THE NORTHEAST  $\frac{1}{4}$  597.00 FEET, THENCE N.  $9^{\circ}02'00''$ E. PARALLEL TO STATE ROAD NO. 47 A DISTANCE OF 369.00 FEET TO THE POINT OF BEGINNING. SAID LAND LYING IN THE SOUTHWEST  $\frac{1}{4}$  OF THE NORTHEAST  $\frac{1}{4}$ , AND THE SOUTHEAST  $\frac{1}{4}$  OF THE NORTHWEST  $\frac{1}{4}$ , SECTION 19, TOWNSHIP 4 SOUTH, RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA AND CONTAINING 42.23 ACRES MORE OR LESS.

#### Shady Oaks Legal Description

SHADY OAKS ACRES BEING A PART OF THE SOUTH  $\frac{1}{2}$  OF THE SOUTHEAST  $\frac{1}{4}$ , SECTION 20, TOWNSHIP 4-S, RANGE 16-E, COLUMBIA COUNTY, FLORIDA

#### DESCRIPTION:

COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHWEST ONE-QUARTER (SW  $\frac{1}{4}$ ) OF THE SOUTHEAST ONE-QUARTER (SE  $\frac{1}{4}$ ), SECTION 20, TOWNSHIP 4-SOUTH, RANGE 16-EAST, AND RUN THENCE N  $89^{\circ}03'30''$ E, ALONG THE SOUTH LINE OF SAID SECTION, 1245.00 FEET, THENCE N  $0^{\circ}20'30''$ W, 40.00 FEET, TO THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD NO. S-242 AND TO THE POINT OF BEGINNING, THENCE CONTINUE N.  $0^{\circ}20'30''$ W, 970.00 FEET, THENCE N.  $89^{\circ}03'30''$ E, 1310.03 FEET, TO THE NORTHWESTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 247, THENCE S.  $41^{\circ}30'$ W, ALONG SAID NORTHWESTERLY RIGHT-OF-WAY, 1029.81 FEET, THENCE S.  $89^{\circ}03'30''$ W, 433.04 FEET, THENCE S.  $0^{\circ}22'46''$ E, 210.00 FEET, TO THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD S-242, THENCE S.  $89^{\circ}03'30''$ W, 190.14 FEET, TO THE POINT OF BEGINNING.

242 Village – Additional information re Legal Description.

242 VILLAGE in SECTION 21, TOWNSHIP 4 SOUTH, RANGE 17 EAST COLUMBIA COUNTY, FLORIDA.

#### DESCRIPTION:

THE SW  $\frac{1}{4}$  OF THE SW  $\frac{1}{4}$  OF SECTION 21, TOWNSHIP 4 SOUTH, RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA, LESS AND EXCEPT, RIGHT-OF-WAY FOR STATE ROAD 242



# Shady Oaks Subdivision

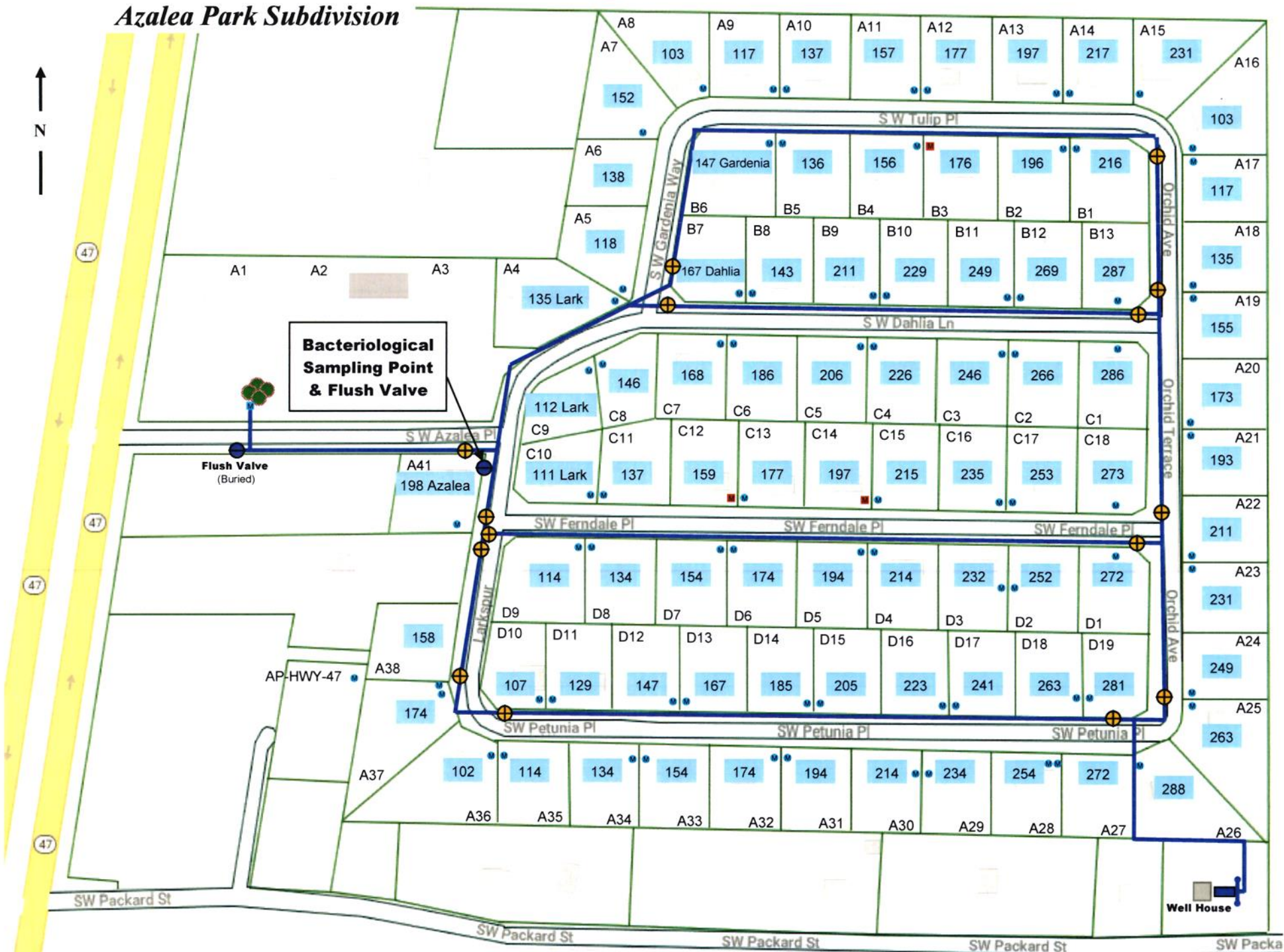
Wellhouse

- Water Line
- Meter
- Flush





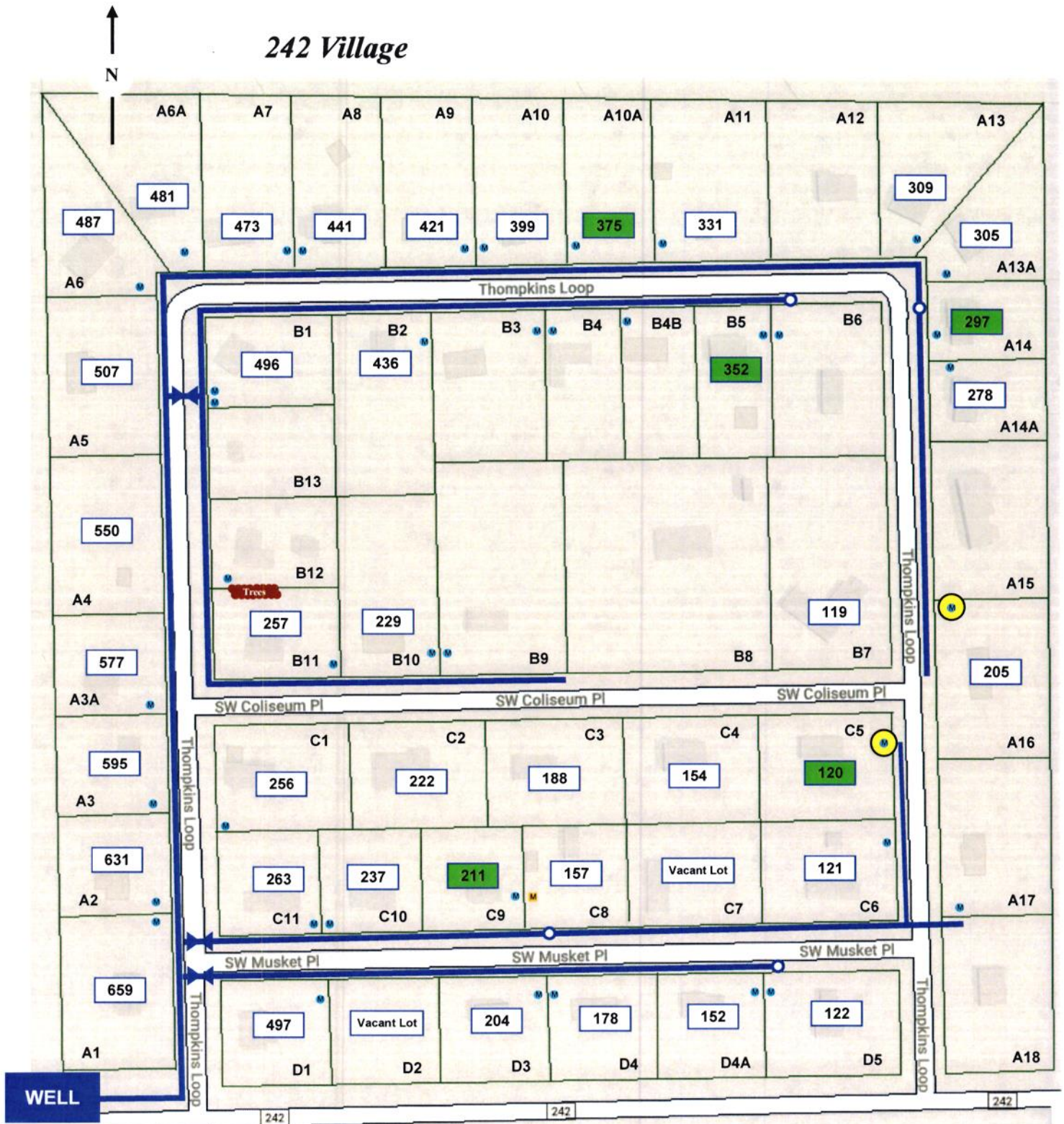
**M** Meter      — Water Line





M Meter  
— Water Line

## 242 Village





Shady Oaks Acres Unit 2  
Addition

# SHADY OAKS ACRES, UNIT 2, ADDITION

BEING A PART OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4, SECTION 20, TOWNSHIP 4-S., RANGE 16-E.  
COLUMBIA COUNTY, FLORIDA

## DESCRIPTION

COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHWEST ONE QUARTER (SW 1/4) OF THE SOUTHEAST ONE QUARTER (SE 1/4), SECTION 20, TOWNSHIP 4-SOUTH, RANGE 16-EAST, AND RUN THENCE N 89°03'40"E, ALONG THE SOUTHWEST CORNER OF SAID SECTION, 125.00 FEET, THENCE N 0°20'40"W, 40.00 FEET, TO THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD NO. 247 AND TO THE POINT OF BEGINNING, THENCE CONTINUE N 0°20'40"W, 470.00 FEET, THENCE N 89°03'40"E, 131.03 FEET, TO THE NORTHWESTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 247, THENCE S 41°30'N, ALONG SAID NORTHWESTERLY RIGHT-OF-WAY, 1029.81 FEET, THENCE S 89°03'40"W, 433.04 FEET, THENCE S 0°22'46"E, 210.00 FEET, TO THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD NO. 247, THENCE S 89°03'40"W, 190.14 FEET, TO THE POINT OF BEGINNING.

## DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT THE E.E.S. DEVELOPMENT COMPANY, INC., A FLORIDA CORPORATION, AS OWNERS, AND ALEX H. STEVENS, AND HIS WIFE, BLONDINA M. STEVENS, AS MORTGAGEES, HAVE CAUSED THE LANDS HEREON DESCRIBED TO BE SURVEYED, LAID OUT, PLATTED AND SUBDIVIDED, TO BE KNOWN AS "SHADY OAKS ACRES, UNIT 2, ADDITION 1", AND THAT THE STREETS AND EASEMENTS AS SHOWN ARE HEREBY DEDICATED TO THE PUBLIC IN WITNESS WHEREOF, THE E.E.S. DEVELOPMENT COMPANY, INC. HAS CAUSED THESE PRESENTS TO BE SIGNED IN ITS NAME BY ITS PRESIDENT AND ITS SECRETARY-TREASURER AND ITS CORPORATE SEAL TO BE AFFIXED.

SIGNED \_\_\_\_\_ PRESIDENT WITNESSES W.C. Hale  
SIGNED Lamar Dupree SECRETARY-TREASURER  
SIGNED \_\_\_\_\_ MORTGAGEE  
SIGNED \_\_\_\_\_ MORTGAGEE

## ACKNOWLEDGEMENT

STATE OF FLORIDA  
COUNTY OF COLUMBIA

ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_ A.D., BEFORE ME PERSONALLY APPEARED JACK ESPENSHAW AND LAMAR DUPREE, PRESIDENT AND SECRETARY-TREASURER OF E.E.S. DEVELOPMENT COMPANY, INC., A CORPORATION LICENSED BY THE STATE OF FLORIDA, TO ME KNOWN TO BE THE INDIVIDUALS AND OFFICERS DESCRIBED IN AND WHO EXECUTED THE FOREGOING DEDICATION AND SEVERALLY ACKNOWLEDGED THE EXECUTION THEREOF TO BE THEIR FREE ACT AND DEED AS SUCH OFFICERS THEREUNTO DULY AUTHORIZED AND THAT THE OFFICIAL SEAL OF SAID CORPORATION IS DULY AFFIXED THEREUNTO AND THE SAID DEDICATION IS THE ACT AND DEED OF SAID CORPORATION. WITNESS MY HAND AND OFFICIAL SEAL AT LAKE CITY, STATE OF FLORIDA THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_ A.D.

SIGNED \_\_\_\_\_  
NOTARY PUBLIC, MY COMMISSION  
EXPIRES \_\_\_\_\_

## ACKNOWLEDGEMENT

STATE OF FLORIDA  
COUNTY OF COLUMBIA

ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_ A.D., BEFORE ME PERSONALLY APPEARED ALEX H. STEVENS AND HIS WIFE, BLONDINA M. STEVENS, MORTGAGEES, TO ME KNOWN TO BE THE INDIVIDUALS DESCRIBED IN AND WHO EXECUTED THE FOREGOING DEDICATION FOR THE PURPOSES THEREIN EXPRESSED.

WITNESS MY HAND AND OFFICIAL SEAL AT LAKE CITY, STATE OF FLORIDA THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_ A.D.

SIGNED \_\_\_\_\_  
NOTARY PUBLIC, MY COMMISSION  
EXPIRES \_\_\_\_\_

## SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT ON THIS 12<sup>th</sup> DAY OF February, 1976 A.D., THE LANDS HEREON DESCRIBED WERE SURVEYED UNDER MY DIRECTION AND THAT PERMANENT REFERENCE MONUMENTS AND PERMANENT CONTROL POINTS WERE PLACED AS SHOWN HEREON IN ACCORDANCE WITH THE STATUTE OF THE STATE OF FLORIDA PERTAINING TO MAPS AND PLATS AND THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE LANDS HEREON SHOWN.

SIGNED W.C. Hale  
W.C. HALE, LAND SURVEYOR  
FLORIDA CERTIFICATE NO. 1519

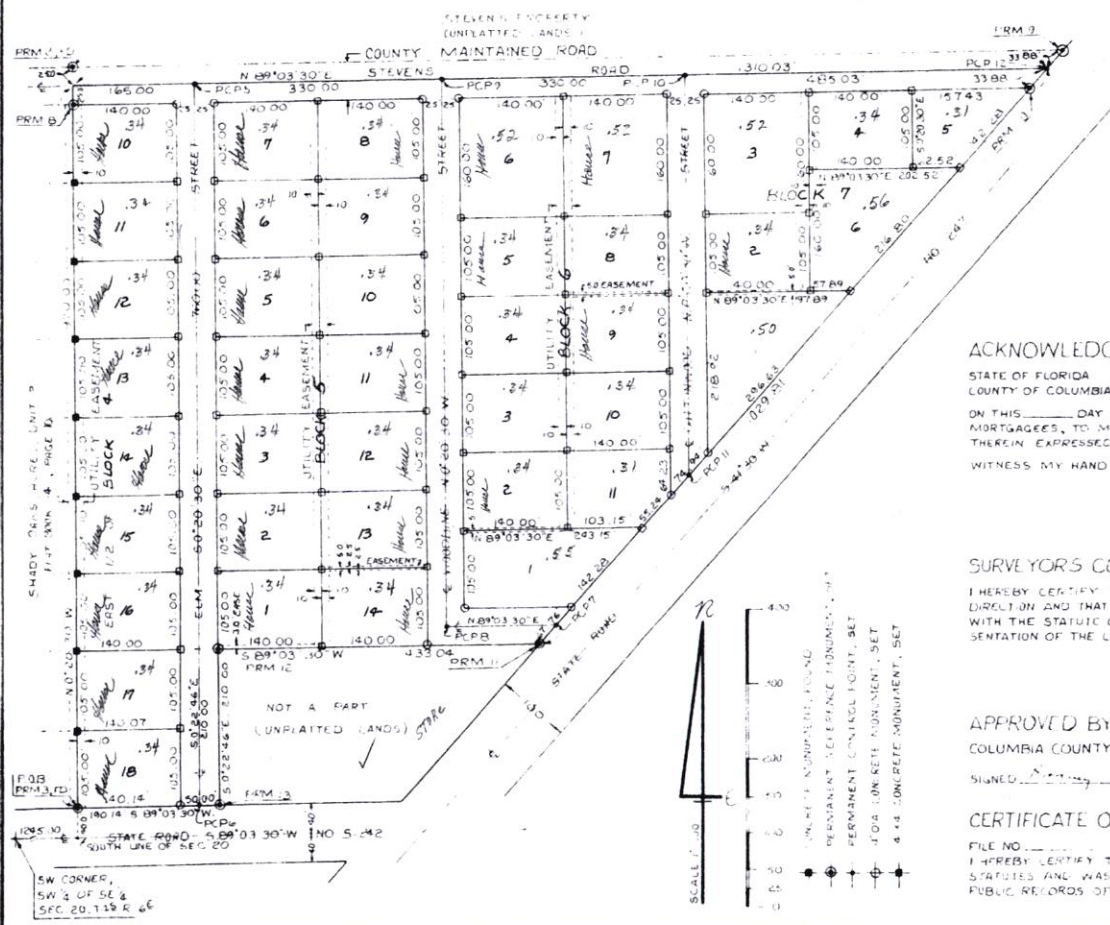
APPROVED BY BOARD OF COUNTY COMMISSIONERS:  
COLUMBIA COUNTY, FLORIDA

SIGNED \_\_\_\_\_ CHAIRMAN ATTEST W.C. Hale CLERK  
DATE 2-20-76

## CERTIFICATE OF CLERK

FILE NO. \_\_\_\_\_  
I HEREBY CERTIFY THAT I HAVE EXAMINED THE FOREGOING PLAT AND FIND THAT IT COMPLIES IN FORM WITH CHAPTER 177, FLORIDA STATUTES AND WAS FILED FOR RECORD THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_ A.D. IN PLAT BOOK \_\_\_\_\_ PAGE \_\_\_\_\_ OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA.

SIGNED W.C. Hale  
CLERK OF DISTRICT COURT, COLUMBIA COUNTY, FLORIDA





20-45-16

## SHADY OAKS ACRES, UNIT 2, ADDITION

BEING A PART OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4, SECTION 20, TOWNSHIP 4-S., RANGE 16-E.

COLUMBIA COUNTY, FLORIDA

## DESCRIPTION:

COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHWEST ONE QUARTER (SW 1/4) OF THE SOUTHEAST ONE QUARTER (SE 1/4), SECTION 20, TOWNSHIP 4-SOUTH, RANGE 16-EAST, AND RUN THENCE N 89°03'40"E, ALONG THE SOUTH LINE OF SAID SECTION, 125.00 FEET, THENCE N 0°20'10"W, 40.00 FEET, TO THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD NO. 5-242 AND TO THE POINT OF BEGINNING, THENCE CONTINUE N 0°20'10"W, 470.00 FEET, THENCE N 89°03'30"E, 1310.03 FEET, TO THE NORTHWESTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 247, THENCE S 41°30'W, ALONG SAID NORTHWESTERLY RIGHT-OF-WAY, 1029.81 FEET, THENCE S 69°03'30"W, 433.04 FEET, THENCE S 0°22'46"E, 210.00 FEET, TO THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD NO. 5-242, THENCE S 89°03'30"W, 190.14 FEET, TO THE POINT-OF-BEGINNING.

## DEDICATION.

KNOW ALL MEN BY THESE PRESENTS THAT THE E. J. S. DEVELOPMENT COMPANY, INC., A FLORIDA CORPORATION, AN OWNERS, AND ALEX H. STEVENS, AND HIS WIFE, BLONDINA M. STEVENS, AS MORTGAGEES, HAVE CAUSED THE LANDS HEREON DESCRIBED TO BE SURVEYED, LAID OUT, PLATTED AND SUB-DIVIDED, TO BE KNOWN AS "SHADY OAKS ACRES, UNIT 2, ADDITION", AND THAT THE STREETS AND EASEMENTS AS SHOWN ARE HEREBY DEDICATED TO THE PUBLIC IN WITNESS WHEREOF, THE E. J. S. DEVELOPMENT COMPANY, INC. HAS CAUSED THESE PRESENTS TO BE SIGNED IN ITS NAME BY ITS PRESIDENT AND ITS SECRETARY-TREASURER AND ITS CORPORATE SEAL TO BE AFFIXED.

SIGNED \_\_\_\_\_ PRESIDENT WITNESSES \_\_\_\_\_  
 SIGNED \_\_\_\_\_ SECRETARY-TREASURER \_\_\_\_\_  
 SIGNED \_\_\_\_\_ MORTGAGEE \_\_\_\_\_  
 SIGNED \_\_\_\_\_ MORTGAGEE \_\_\_\_\_

## ACKNOWLEDGEMENT:

STATE OF FLORIDA  
 COUNTY OF COLUMBIA

ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_, A.D., BEFORE ME PERSONALLY APPEARED JACK ESPENSHIP AND LAMAR DUPREE, RESPECTIVELY, PRESIDENT AND SECRETARY-TREASURER OF E. J. S. DEVELOPMENT COMPANY, INC., A CORPORATION LICENSED BY THE STATE OF FLORIDA, TO ME KNOWN TO BE THE INDIVIDUALS AND OFFICERS DESCRIBED IN AND WHO EXECUTED THE FOREGOING DEDICATION AND SEVERALLY ACKNOWLEDGED THE EXECUTION THEREOF TO BE THEIR FREE ACT AND DEED AS SUCH OFFICERS THEREUNTO DULY AUTHORIZED AND THAT THE OFFICIAL SEAL OF SAID CORPORATION IS DULY AFFIXED THERETO AND THE SAID DEDICATION IS THE ACT AND DEED OF SAID CORPORATION. WITNESS MY HAND AND OFFICIAL SEAL AT LAKE CITY, STATE OF FLORIDA THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_, A.D.

SIGNED \_\_\_\_\_  
 NOTARY PUBLIC, MY COMMISSION  
 EXPIRES \_\_\_\_\_

## ACKNOWLEDGEMENT:

STATE OF FLORIDA  
 COUNTY OF COLUMBIA

ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_, A.D., BEFORE ME PERSONALLY APPEARED ALEX H. STEVENS AND HIS WIFE BLONDINA M. STEVENS, MORTGAGEES, TO ME KNOWN TO BE THE INDIVIDUALS DESCRIBED IN AND WHO EXECUTED THE FOREGOING DEDICATION FOR THE PURPOSES THEREIN EXPRESSED.

WITNESS MY HAND AND OFFICIAL SEAL AT LAKE CITY, STATE OF FLORIDA THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_, A.D.

SIGNED \_\_\_\_\_  
 NOTARY PUBLIC, MY COMMISSION  
 EXPIRES \_\_\_\_\_

## SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT ON THIS 12<sup>th</sup> DAY OF February, 1976, A.D., THE LANDS HEREON DESCRIBED WERE SURVEYED UNDER MY DIRECTION AND THAT PERMANENT REFERENCE MONUMENTS AND PERMANENT CONTROL POINTS WERE PLACED AS SHOWN HEREON IN ACCORDANCE WITH THE STATUTE OF THE STATE OF FLORIDA PERTAINING TO MAPS AND PLATS AND THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE LANDS HEREON SHOWN.

SIGNED \_\_\_\_\_  
 W. C. HALE, LAND SURVEYOR  
 FLORIDA CERTIFICATE NO. 1519

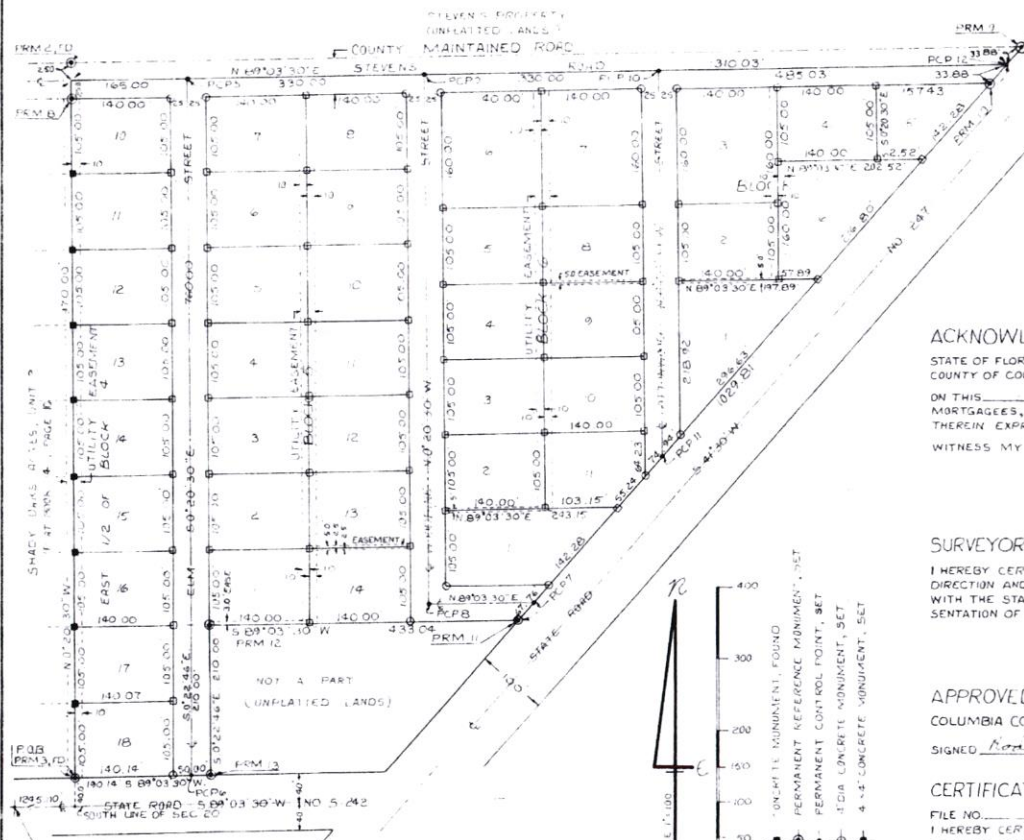
## APPROVED BY BOARD OF COUNTY COMMISSIONERS:

COLUMBIA COUNTY, FLORIDA

SIGNED \_\_\_\_\_, CHAIRMAN ATTEST \_\_\_\_\_, CLERK  
 DATE \_\_\_\_\_

## CERTIFICATE OF CLERK.

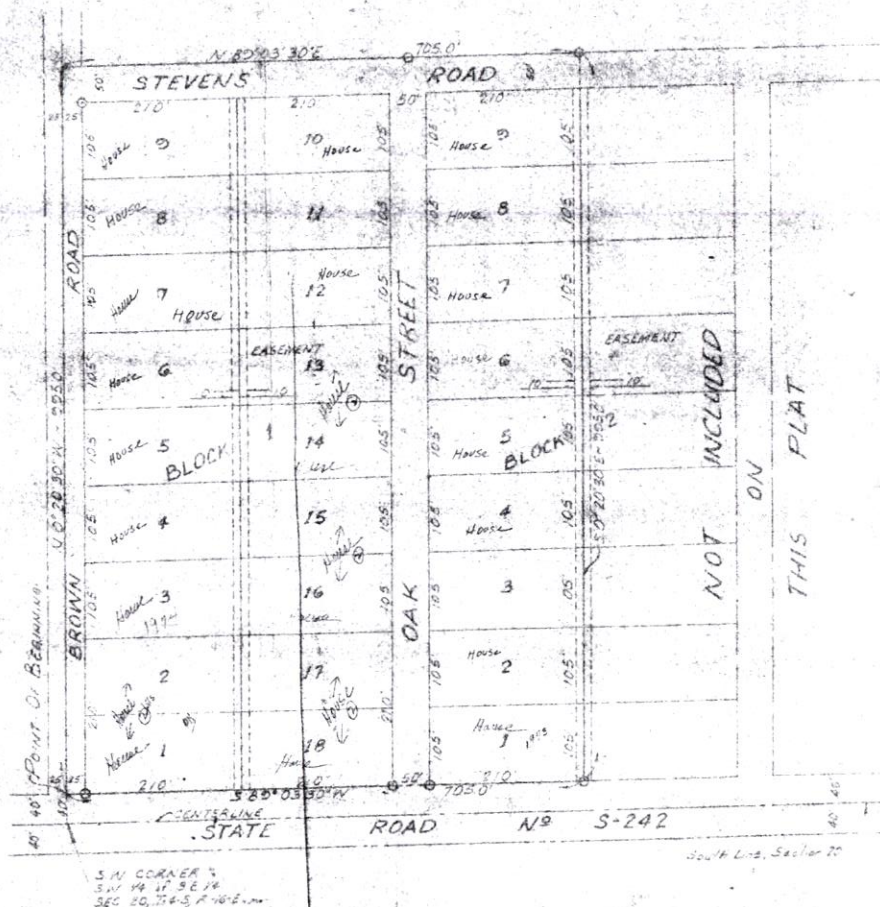
FILE NO. \_\_\_\_\_  
 I HEREBY CERTIFY THAT I HAVE EXAMINED THE FOREGOING PLAT AND FIND THAT IT COMPLIES IN FORM WITH CHAPTER 177, FLORIDA STATUTES.





# SHADY OAKS ACRES

## 'UNIT NUMBER ONE'



### NOTE:

○ indicates P.M. Set in Place

### DESCRIPTION:

COMMENCE at the SW corner of the SW 1/4 of the SE 1/4, Section 20, Township 4 South, Range 16 East and run N 0°20'30"W 40 feet to the North Right of Way Line of State Road No. 3-242 to the Point Of BEGINNING, thence continue N 0°20'30"W along the West line of said SW 1/4 SE 1/4 995.0 feet, thence N 80°03'30"E 705 feet, thence S 0°20'30"E 995 feet to the North Right of Way Line of said State Road, thence S 80°03'30"W 705 feet to the Point Of BEGINNING.

### DEDICATION:

Know all men by these Present, that E&S Development Co., Inc. is the Rightful Owner of the above described lands and have, ceded said lands to be Subdivided and Platted, to be known as SHADY OAKS ACRES, Unit Number One, and dedicate to the use of the Public the Streets as shown.

Witness: W. Wilson

Signed: W. H. Stearns

PRES.

Witness: Alberic L. Lenoir

Signed: John M. Lenoir

SEC.

### ACKNOWLEDGEMENT:

STATE OF FLORIDA  
COLUMBIA COUNTY

On this 2nd day of February, 1971 before me appeared ALICE H. STEARNS and JOHN M. LENOIR, known to me to be the President and Secretary of E&S Development Co., Inc. of Lake City, Florida, who acknowledged the execution of the above instrument as of their own free will and of their own accord, this 2nd day of February, 1971.

Notary Public: A. H. Lenoir

My Commission Expires: June 3, 1973

### SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY that I am a duly authorized LAND SURVEYOR and that the lands herein shown and described have been surveyed and laid out under my direction and PRM's have been set as shown herein.

Signed: B. G. MOORE  
B. G. MOORE, Land Surveyor  
Fl. Cert. No. 430

APPROVED BY THE BOARD OF COUNTY COMMISSIONERS FOR  
COLUMBIA COUNTY, FLORIDA.

W. H. Stearns Chairman  
John M. Lenoir Clerk  
Date: 2-7-71



RE#  
5076.001

# SHADY OAKS ACRES, UNIT 2, ADDITION

BEING A PART OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4, SECTION 20, TOWNSHIP 4-S., RANGE 16-E.  
COLUMBIA COUNTY, FLORIDA

4-34

## DESCRIPTION:

COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHWEST ONE-QUARTER (SW 1/4) OF THE SOUTHEAST ONE-QUARTER (SE 1/4), SECTION 20, TOWNSHIP 4-SOUTH, RANGE 16-EAST, AND RUN THENCE N. 89° 03' 30" E., ALONG THE SOUTH LINE OF SAID SECTION, 1245.00 FEET, THENCE N. 0° 20' 30" W., 40.00 FEET, TO THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD NO. 5-242 AND TO THE POINT-OF-BEGINNING, THENCE CONTINUE N. 0° 20' 30" W., 970.00 FEET, THENCE N. 89° 03' 30" E., 1310.03 FEET, TO THE NORTHWESTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 247, THENCE S. 41° 30' W., ALONG SAID NORTHWESTERLY RIGHT-OF-WAY, 1029.81 FEET, THENCE S. 89° 03' 30" W., 433.04 FEET, THENCE S. 0° 22' 46" E., 210.00 FEET, TO THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD NO. 5-242, THENCE S. 89° 03' 30" W., 190.14 FEET, TO THE POINT-OF-BEGINNING.

## DEDICATION:

KNOW ALL MEN BY THESE PRESENT THAT THE E. & S. DEVELOPMENT COMPANY, INC., A FLORIDA CORPORATION, AS OWNERS, AND ALEX H. STEVENS, AND HIS WIFE, BLONDINA M. STEVENS, AS MORTGAGEES, HAVE CAUSED THE LANDS HEREON DESCRIBED TO BE SURVEYED, LAID OUT, PLATTED AND SUB-DIVIDED, TO BE KNOWN AS "SHADY OAKS ACRES, UNIT 2, ADDITION 1", AND THAT THE STREETS AND EASEMENTS AS SHOWN ARE HEREBY DEDICATED TO THE PUBLIC. IN WITNESS THEREOF, THE SAID E. & S. DEVELOPMENT COMPANY, INC. HAS CAUSED THESE PRESENT TO BE SIGNED IN ITS NAME BY ITS PRESIDENT AND ITS SECRETARY-TREASURER AND ITS CORPORATE SEAL TO BE AFFIXED.

SIGNED Alex H. Stevens PRESIDENT WITNESSES Blondina M. Stevens  
SIGNED Lamar Dupree SECRETARY-TREASURER  
SIGNED Alex H. Stevens MORTGAGEE  
SIGNED Blondina M. Stevens MORTGAGEE

## ACKNOWLEDGEMENT:

STATE OF FLORIDA  
COUNTY OF COLUMBIA  
ON THIS 14th DAY OF March, 1976, A.D., BEFORE ME PERSONALLY APPEARED JACK ESPENSHIP AND LAMAR DUPREE, RESPECTIVELY, PRESIDENT AND SECRETARY-TREASURER OF E. & S. DEVELOPMENT COMPANY, INC., A CORPORATION LICENSED BY THE STATE OF FLORIDA, TO ME KNOWN TO BE THE INDIVIDUALS AND OFFICERS DESCRIBED IN AND WHO EXECUTED THE FOREGOING DEDICATION AND SEVERALLY ACKNOWLEDGED THE EXECUTION THEREOF TO BE THEIR FREE ACT AND DEED AS SUCH OFFICERS THEREUNTO DULY AUTHORIZED AND THAT THE OFFICIAL SEAL OF SAID CORPORATION IS DULY AFFIXED THERETO AND THE SAID DEDICATION IS THE ACT AND DEED OF SAID CORPORATION. WITNESS MY HAND AND OFFICIAL SEAL AT LAKE CITY, STATE OF FLORIDA THIS 14th DAY OF March, 1976, A.D.

SIGNED Carol W. Campbell  
NOTARY PUBLIC, MY COMMISSION  
EXPIRES 3/31/78

## ACKNOWLEDGEMENT:

STATE OF FLORIDA  
COUNTY OF COLUMBIA  
ON THIS 14th DAY OF March, 1976, A.D., BEFORE ME PERSONALLY APPEARED ALEX H. STEVENS, AND HIS WIFE, BLONDINA M. STEVENS, MORTGAGEES, TO ME KNOWN TO BE THE INDIVIDUALS DESCRIBED IN AND WHO EXECUTED THE FOREGOING DEDICATION FOR THE PURPOSES THEREIN EXPRESSED. WITNESS MY HAND AND OFFICIAL SEAL AT LAKE CITY, STATE OF FLORIDA THIS 14th DAY OF March, 1976, A.D.

SIGNED Carol W. Campbell  
NOTARY PUBLIC, MY COMMISSION  
EXPIRES 3/31/78

## SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT ON THIS 12th DAY OF February, 1976, A.D., THE LANDS HEREON DESCRIBED WERE SURVEYED UNDER MY DIRECTION AND THAT PERMANENT REFERENCE MONUMENTS AND PERMANENT CONTROL POINTS WERE PLACED AS SHOWN HEREON IN ACCORDANCE WITH THE STATUTE OF THE STATE OF FLORIDA PERTAINING TO MAPS AND PLATS AND THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE LANDS HEREON SHOWN.

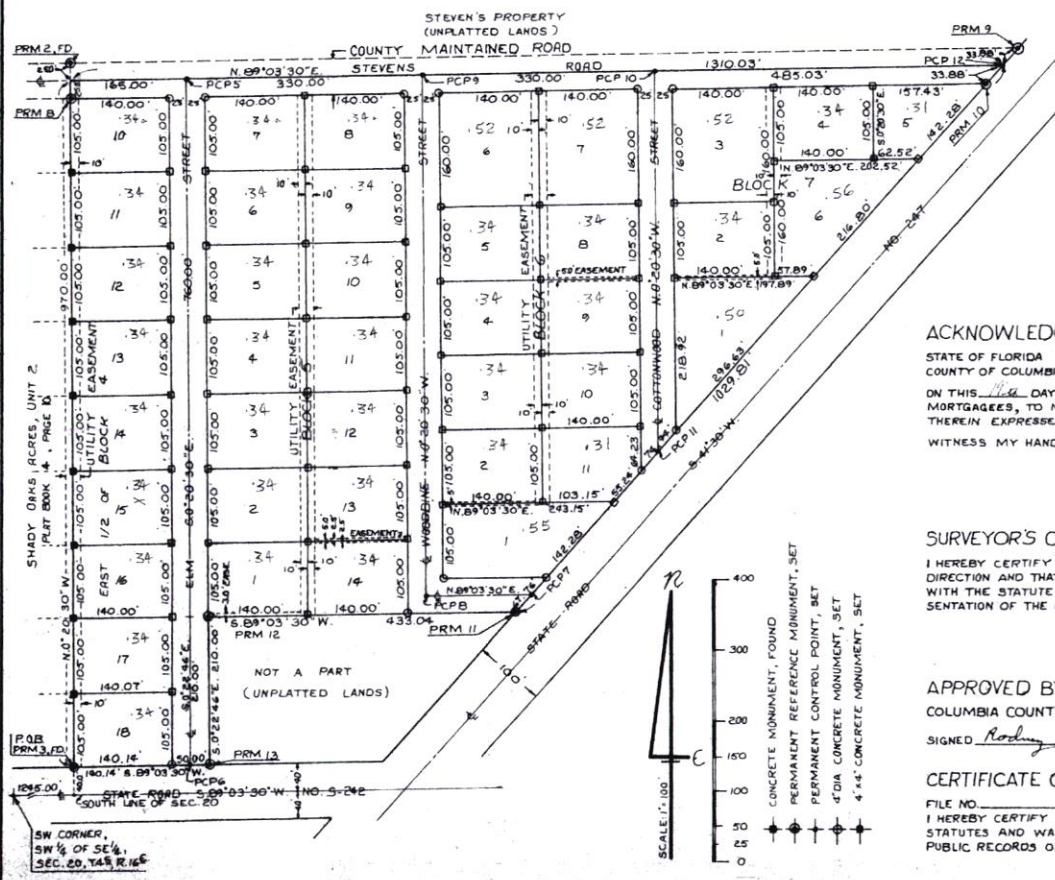
SIGNED W.C. Hale  
W.C. HALE, LAND SURVEYOR  
FLORIDA CERTIFICATE NO. 1519

## APPROVED BY BOARD OF COUNTY COMMISSIONERS:

COLUMBIA COUNTY, FLORIDA  
SIGNED Rodney S. Dicks, CHAIRMAN  
ATTEST W. S. Bruna, CLERK  
DATE 8-20-76

## CERTIFICATE OF CLERK:

FILE NO. \_\_\_\_\_  
I HEREBY CERTIFY THAT I HAVE EXAMINED THE FOREGOING PLAT AND FIND THAT IT COMPLIES IN FORM WITH CHAPTER 177, FLORIDA STATUTES AND WAS FILED FOR RECORD THIS 20th DAY OF August, 1976, A.D. IN PLAT BOOK 4 PAGE 24 OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA.  
SIGNED W. S. Bruna  
CLERK OF CIRCUIT COURT, COLUMBIA COUNTY, FLORIDA





WATER SUPPLY SYSTEM  
IN  
SECTION 19, TOWNSHIP 4 SOUTH, RANGE 17 EAST  
COLUMBIA COUNTY, FLORIDA

SECTION 19, TOWNSHIP 4 SOUTH, RANGE 17 EAST  
COLUMBIA COUNTY, FLORIDA

[illegible]

1. ALL DISTRIBUTION PIPES TO BE EXCAVATED AND CONFORM TO A.S.T.M. D 114. AND BEAR W.P.S. SEAL OF APPROVAL.
2. D.C. - GIVE VALVE 1/2" DISAPPROPRIATE.
3. D.C. - FLOOR PLATE.
4. WAREHOUSE BUILDING TO BE 3,000 SQUARE FEET (10,000 S.F.)
5. ALL TYPICAL DETAILS OF BUILDING TO BE SUBMITTED TO A.S.T.M. D 114 FOR APPROVAL.
6. ALL TYPICAL DETAILS OF BUILDING TO BE SUBMITTED TO A.S.T.M. D 114 FOR APPROVAL.
7. ALL TYPICAL DETAILS OF BUILDING TO BE SUBMITTED TO A.S.T.M. D 114 FOR APPROVAL.
8. ALL TYPICAL DETAILS OF BUILDING TO BE SUBMITTED TO A.S.T.M. D 114 FOR APPROVAL.
9. ALL TYPICAL DETAILS OF BUILDING TO BE SUBMITTED TO A.S.T.M. D 114 FOR APPROVAL.
10. ALL TYPICAL DETAILS OF BUILDING TO BE SUBMITTED TO A.S.T.M. D 114 FOR APPROVAL.



3.4 CORNER OF THE  
3.4.4 OF THE A.E. 4  
SECTION 11, TOWNSHIP  
4 SOUTH, RANGE 17 EAST

[illegible]

**L. L. LEE & ASSOCIATES, INC.**  
**SURVEYORS - ENGINEERS**  
950 E. Raymond Dr., Lake City, Fla.  
370 W. Fairbanks, Winter Park, Fla.

WATER SUPPLY AND  
TREATMENT FACILITIES FOR  
SOLID WATER WORKS INC.  
AS BUILT

Drawn By: B.A.R.
Created By: J.L.
Print Date:
File
Reviewed Date:
Sheet No. / of
U.S. No. 74-74



A REPLAT OF  
PART OF**242 VILLAGE**A SUBDIVISION IN  
SECTION 21, TWP. 4-S., RGE. 17-E.  
COLUMBIA COUNTY, FLORIDA

## DESCRIPTION

LOTS No. 1, 2, 3, 6, 7, 8, 9, 10 and 13 of BLOCK "A", LOTS No. 1, 2, 10 and 11 of BLOCK "B", LOTS No. 8, 9 and 10 of BLOCK "C" and LOTS No. 1, 2, 3 and 4 of BLOCK "D" of "242 VILLAGE" a Sub-division as Recorded in PLAT BOOK 5, PAGE 5 of the Official Records of Columbia County, Florida.

## LESS AND EXCEPT:

The South 30 feet of LOT No. 1 of BLOCK "A" of said "242 VILLAGE"

## LEGEND

1. = PRM (Permanent Reference Monument) Set, cap stamped PLS 3628 with Monument No. & Date.
2. = Concrete Monument found in place.
3. Bearings on Boundary based on Record Plat of "242 VILLAGE" (Plat Book 5, Page 5) and monumentation found in place.
4. All roads in this subdivision are current County Roads that were previously dedicated with "242 VILLAGE" (P.B. 5, Pg. 5).
5. Water Supply by central system, Sewerage Disposal by individual septic tank / drain fields.
6. Boundary has been checked and Plat information reflects perfect closure precision.
7. Date of Preliminary Plan Approval: 7/2/87
8. This development does not lie in a Flood Zone "A" area per F.I.A. Maps (panel 120070 0008 A).

## SURVEYOR'S CERTIFICATION

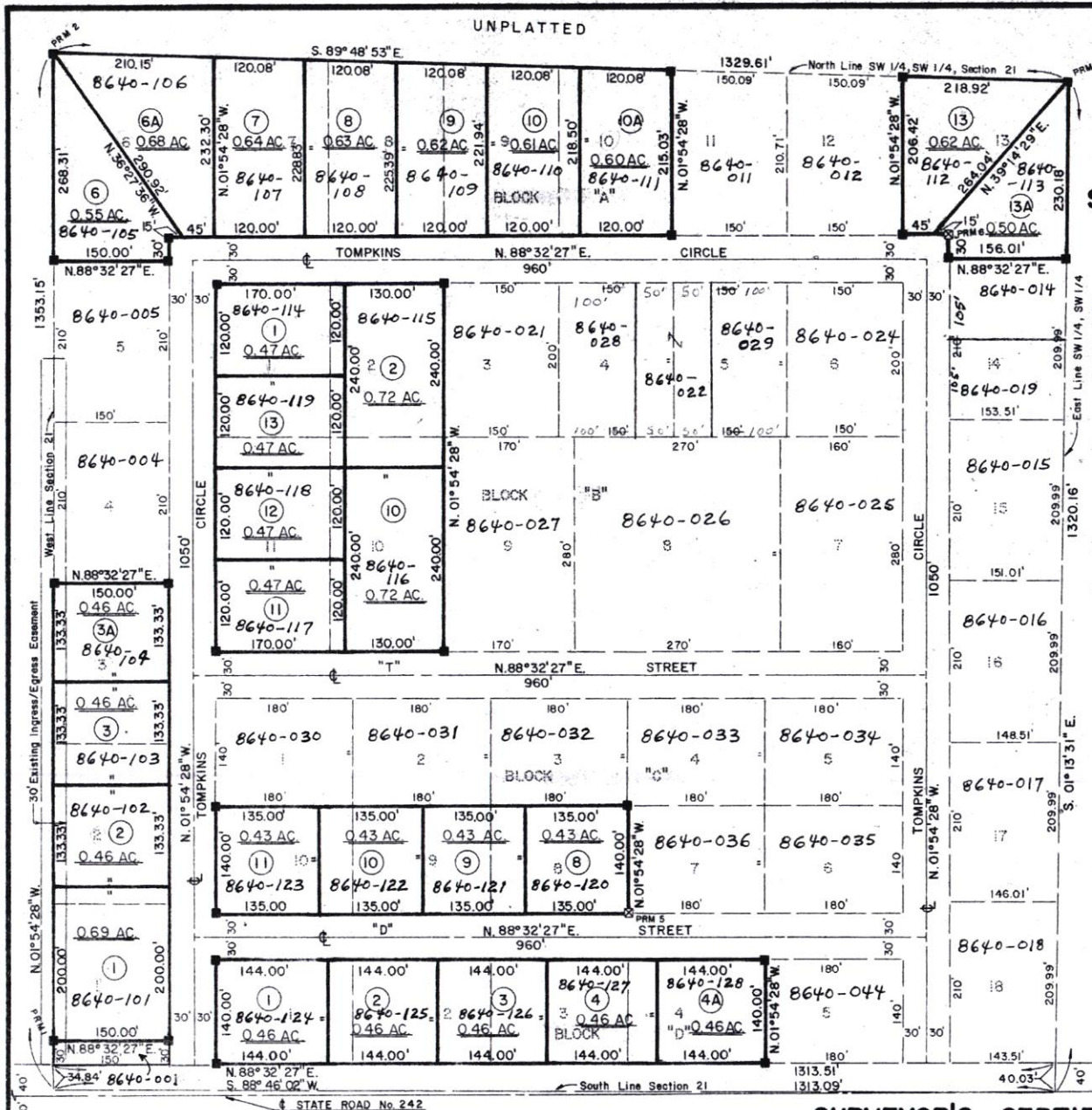
I HEREBY CERTIFY that this Plat is a true and correct representation of the land Surveyed and shown hereon, that the Survey was made under my responsible direction and supervision, and that Permanent Control Points have been set and that Survey Data and Monumentation complies with the Columbia County Subdivision Ordinance and Chapter 177 of the Florida Statutes.

SIGNED: \_\_\_\_\_

DONALD F. LEE, P.L.S.

Florida Registered Certificate No. 3628

DATE: 7/13/1987



## NOTE:

- 15' Utility Easement along all road R/W's.  
10' Utility Easement each side of all side lot lines.

0 50 100  
1" = 100'

FILE NO. 87-08381  
RECORDED BOOK 5 PAGE 99  
87 AUG - 6 PM 10:08  
Angela G. Lee  
COLUMBIA COUNTY, FLORIDA



A REPLAT OF  
PART OF  
**242 VILLAGE**  
A SUBDIVISION IN  
SECTION 21, TWP. 4-S., RGE. 17-E.  
COLUMBIA COUNTY, FLORIDA

**DEDICATION**

KNOW ALL MEN by these presents, that Classic Heritage Homes, as owners and James P. Tompkins, as first mortgagees and Barnett Bank of Columbia County, as second Mortgagees have caused the lands hereon described to be Surveyed, Subdivided and Platted to be known as a REPLAT OF A PART OF 242 VILLAGE and that any Easements, as depicted hereon are hereby dedicated to the perpetual use of the public for proper purposes as stated thereon.

CLASSIC HERITAGE HOMES, INC., Owners

<u>William B. Blackwell</u> William B. Blackwell, Pres.	<u>Phyllis L. Blackwell</u> Phyllis L. Blackwell, Vice Pres. & Secretary
Witness	Witness
<u>James P. Tompkins</u> James P. Tompkins	<u>Mary Lou Tompkins</u> Mary Lou Tompkins
Witness	Witness
BARNETT BANK OF COLUMBIA COUNTY Second Mortgagee	
<u>George C. Hinckley</u> George C. Hinckley, Sr. Vice Pres.	<u>Joe W.C. Montgomery</u> Joe W.C. Montgomery, Assist. Vice Pres.
Witness	Witness

**ACKNOWLEDGEMENT, STATE OF FLORIDA, COUNTY OF COLUMBIA**

I HEREBY CERTIFY that before me personally appeared William B. Blackwell, President and Phyllis L. Blackwell, Vice Pres./Secretary of Classic Heritage Homes, Inc., as owners and George C. Hinckley, Sr. Vice President and Joe W.C. Montgomery, Assist. Vice President of Barnett Bank of Columbia County, as mortgagee, to me known to be the individuals named in the foregoing dedication, and that they acknowledge execution thereof with there seals affixed hereto.

WITNESS my hand and seal this 14 day of July, 1987 A.D.

SIGNED: [Signature]  
NOTARY PUBLIC, Florida

Notary Public, State of Florida at Large  
My Commission Expires June 30, 1992  
Renewed thru Agent's Notary Acknowledgment

**ACKNOWLEDGEMENT, STATE OF FLORIDA, COUNTY OF COLUMBIA**

I HEREBY CERTIFY that before me personally appeared James P. Tompkins and Mary Lou Tompkins, as mortgagees, to be known to be the individuals named in the foregoing dedication, and that they acknowledge execution thereof with there seals affixed hereto.

WITNESS my hand and seal this 14 day of July, 1987 A.D.

SIGNED: [Signature]  
NOTARY PUBLIC, Florida

**APPROVAL** COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

SIGNED: [Signature] Chairman  
ATTEST: [Signature] Clerk  
DATE: 7/20/87

**CERTIFICATE OF CLERK**

THIS PLAT having been approved by the Columbia Board of County Commissioners, is accepted for files and recorded this 6th day of August, 1987 A.D. in Plat Book 5, Page 99A

SIGNED: [Signature]  
Clerk of Circuit Court  
Columbia County, Florida

**COUNTY ATTORNEY'S CERTIFICATE**

I HEREBY CERTIFY that I have examined the foregoing Plat and that it complies in form with the Columbia County Subdivision Ordinance and Chapter 177 of the Florida Statutes.

SIGNED: [Signature] DATE: 7/31/87  
County Attorney

FILE NO. 87-08381  
RECORDED  
BOOK 5 PAGE 99A  
87 AUG-6 P1300  
[Signature]  
CLERK OF CIRCUIT COURT  
COLUMBIA COUNTY, FLORIDA



117 N. 30-46

100 JAN 17 PM 4:07

James P. Tompkins  
Mortgagee

# 242 VILLAGE

in Roll

SECTION 21, TOWNSHIP 4 SOUTH, RANGE 17 EAST  
COLUMBIA COUNTY, FLORIDA

## DESCRIPTION:

THE SW 1/4 OF THE SW 1/4 OF SECTION 21, TOWNSHIP 4 SOUTH, RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA, LESS AND EXCEPT, RIGHT-OF-WAY FOR STATE ROAD NO. 242

## DEDICATION:

KNOW ALL MEN BY THESE PRESENTS THAT JAMES P. TOMPKINS AND MARY LOU TOMPKINS, HIS WIFE, OWNERS, AND NOW E. AND RUTH B. SELLERS, HIS WIFE, AND L. J. MCKAY, MORTGAGEES, HAVE CAUSED THE LANDS HEREIN DESCRIBED TO BE SURVEYED, SUBDIVIDED AND PLATTED TO BE KNOWN AS "242 VILLAGE" AND THAT ALL STREETS AND ROADS ARE HEREBY DEDICATED TO THE PERPETUAL USES AND PURPOSES THEREON STATED. IN WITNESS WHEREOF, JAMES P. TOMPKINS AND MARY LOU TOMPKINS, OWNERS, AND NOW E. AND RUTH B. SELLERS, HIS WIFE, AND L. J. MCKAY, MORTGAGEES, HAVE CAUSED THESE PRESENTS TO BE EXECUTED AND WITH THEIR SEALS AFFIXED HERETO

_____	Witness	_____	Owner
_____	Witness	_____	Owner
_____	Witness	_____	Mortgagee
_____	Witness	_____	Mortgagee
_____	Witness	_____	Mortgagee

## CERTIFICATE OF THE CLERK:

I HEREBY CERTIFY THAT THE FOREGOING PLAT, HAVING BEEN APPROVED BY THE BOARD OF COUNTY COMMISSIONERS, COLUMBIA COUNTY, FLORIDA, WAS ACCEPTED BY ME AND FILED FOR RECORD THIS 17th DAY OF January, 1979, IN PLAT BOOK 5, PAGE 5, OF THE OFFICIAL RECORDS OF COLUMBIA COUNTY, FLORIDA.

\_\_\_\_\_  
Clerk of Circuit Court, Columbia County, Fla.

## COUNTY ATTORNEYS CERTIFICATE:

I HEREBY CERTIFY THAT I HAVE EXAMINED THE FOREGOING PLAT AND IT COMPLIES IN FORM WITH THE REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES

\_\_\_\_\_  
County Attorney

## ACKNOWLEDGEMENT:

STATE OF FLORIDA, COUNTY OF COLUMBIA

I HEREBY CERTIFY THAT ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. 1979, BEFORE ME PERSONALLY APPEARED JAMES P. TOMPKINS AND MARY LOU TOMPKINS, OWNERS, AND NOW E. AND RUTH B. SELLERS, HIS WIFE, AND L. J. MCKAY, MORTGAGEES, THAT HAVING BEEN THE PERSONS DESCRIBED IN AND WHO EXECUTED THE FOREGOING DEDICATION, AND THEY ACKNOWLEDGE EXECUTION THEREOF FOR THE PURPOSES THEREIN EXPRESSED WITNESS MY HAND AND OFFICIAL SEAL AT \_\_\_\_\_ STATE OF FLORIDA THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 1979.

MY COMMISSION EXPIRES \_\_\_\_\_ NOTARY PUBLIC STATE OF FLORIDA

## APPROVED BY THE BOARD OF COUNTY COMMISSIONERS:

COLUMBIA COUNTY, FLORIDA

Signed \_\_\_\_\_ Clerk

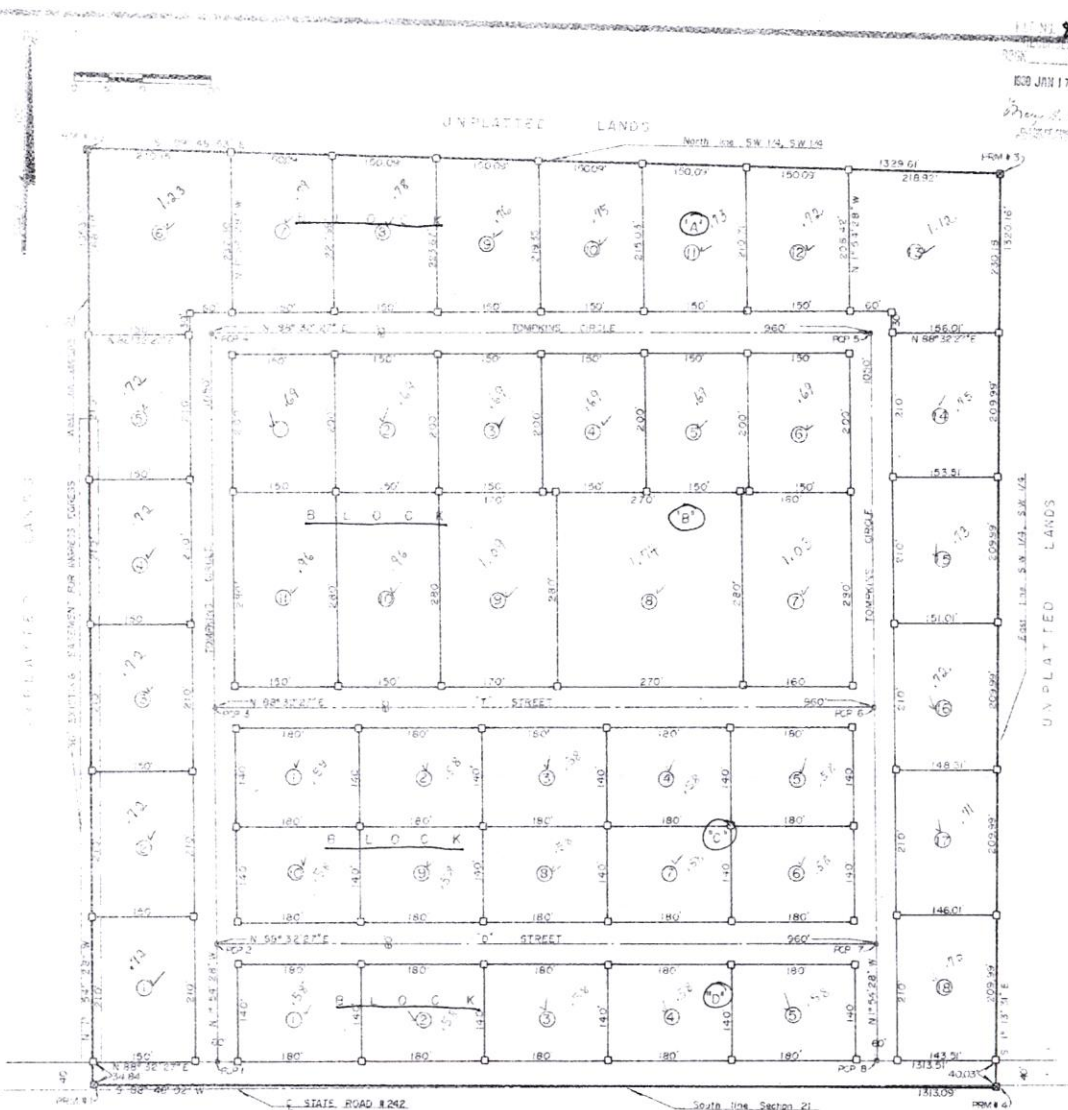
## SURVEYORS CERTIFICATE:

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE LANDS SURVEYED AND SHOWN HEREON, THE SURVEY WAS MADE UNDER MY RESPONSIBLE DIRECTIONS AND SUPERVISION, THAT PERMANENT REFERENCE MONUMENTS AND PERMANENT CONTROL POINTS HAVE BEEN PLACED AS SHOWN, AND THAT THE SURVEY DATA SHOWN HEREON COMPLIES WITH ALL REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES.

Signed \_\_\_\_\_  
CORRETT HORNE, JR., P.L.S. FLA. REG. CERT. NO. 3048  
DATE 9-5-79

## LEGEND:

- CONCRETE MONUMENT (Permanent Reference Monument) WITH ALUMINUM CAP IN TOP WITH REFERENCE NUMBER
- CONCRETE MONUMENT
- PERMANENT CONTROL POINTS (PCP) WITH ALUMINUM CAPS IN TOP WITH REFERENCE NUMBER
- △ BEARINGS PROJECTED FROM STATE PLANS COORDINATES





Colusa County WM

Solano Water Works, Inc.

(Azalea Park Subdivision)

This Space For Use By Approving Agency

STATE OF FLORIDA  
DEPARTMENT of HEALTH and REHABILITATIVE SERVICES  
DIVISION OF HEALTH

Post Office Box 210  
Jacksonville, Florida 32201

60819

APPLICATION FOR APPROVAL OF PLANS &  
SPECIFICATIONS FOR PUBLIC WATER  
SUPPLY SYSTEM

Bureau of Sanitary Engineering  
WATER SUPPLY SECTION  
**RECEIVED**  
APR 9 1974  
Section Administrator.....Ref. To:  
☐ M W (Plans).....☐ SWP (Plans)  
☐ M W (Oper.).....☐ SWP (Oper.)  
☐ M W (Repts.).....☐ WSW  
☐ File.....☐ Other

Bureau of Sanitary Engineering  
WATER SUPPLY SECTION  
**RECEIVED**  
APR 24 1974  
Section Administrator.....Ref. To:  
☐ M W (Plans).....☐ SWP (Plans)  
☐ M W (Oper.).....☐ SWP (Oper.)  
☐ M W (Repts.).....☐ WSW  
☐ File.....☐ Other

This Space For Use By Approving Agency

Approval Date MAY 1 1974

Serial No. B-14822



# INFORMATION REGARDING PROPOSED PUBLIC WATER WORKS

Submit comprehensive engineering report with all plans and specifications and complete such portions of this form as relate to the treatment plant. (Use supplemental sheets if necessary.)

Name of Water System Supplying Water Solid Water Works, Inc.

Previous approval Serial Number(s) None

Est. Cost this Project: Supply \$ 8,000.00 Treatment \$ 3,500.00 Distribution \$ 18,500.00

EXISTING SUPPLY AND TREATMENT FACILITIES: Total \$ 30,000.00

Supply None (other than individual wells) MGD, Treatment None MGD

Storage: Ground None gal. Elev. None gal: Pressure Tank None gal.

Service Pumping None gpm

Capacity of emergency pumping units: Well None gpm, service None gpm

Utility is Capable of Supplying None Equivalent Residential Connections.

Max. Daily output None MG. None date Equivalent Residential Connections None

PROPOSED IMPROVEMENT OR DISTRIBUTION EXTENSION: Plant increase 0.040 MGD

Supply: 2 - 6" wells Pressure Tank 3,000 gal

Plant: Aerator N.A. Gnd. Storage N.A. Elve. Storage N.A.

Chlorinator Positive displacement hypochlorinator Service pumping N.A. gpm

Aux. Power for None

Present Population (municipality, institution, etc.) 75

Additional Population (served by this project) 320 Equivalent to 107 residential services.

Estimated population to be connected: 5 years X 10 years None 20 years None

Present per capita consumption Unknown Per capita estimated future 125 gpd

Give any industrial users or abnormal demands None

Interconnection with other system None cross connections None

Min. size pipe 2 Residual pressure at peak load 30 psi Is fire control provided? No

Describe dead-end conditions and necessity for flushing Flush Hydrant

List lengths of new pipe lines 6" and larger None

Remarks None



To the Division of Health:

DATE March 4, 1974

The Solid Water Works, Inc.

(Insert title of body making application, i.e., municipality, corporation or individual)

whose address is P.O. Box 191

(Street and Number)

Lake City, Florida 32055

(City)

authorized by law to act for the said Solid Water Works, Inc.

(Insert city, town or corporation)

and to expend its funds for water supply and treatment works, herewith submit for the consideration of the Division of Health, plans, specifications and other necessary data (including Form EWI-36) prepared by

Normand Hodges

(Engineer or firm)

of 950 South Ridgewood Drive

(Address)

Lake City, Florida 32055

who is hereby authorized to represent the applicant in the engineering features including supervision of construction and appropriate certification as to compliance with the approved plans and specifications of this project for the installation of New wells, pumps, chlorinator, hydropneumatic tank and Dist. sys.

(Clearly describe: new system, new plant, modification, extension)

to serve Azalea Park S/D

(Subdivision, plant, school, other)

located at N $\frac{1}{2}$  Sec. 19, T4S, R17 E.

(Approximate location)

in/near the city of Lake City in the county of Columbia, State of Florida, as required by the regulations of the Division of Health and herewith make application to the Division of Health for the approval of this project.

These plans, specifications and related documents will be approved and accepted by Directors

(Board, Council, Directors, Etc.)

when they have received the approval of the Division of Health.

Upon construction, these facilities will be owned by Solid Water Works, Inc. and will be

operated and maintained by Same whose address is Solid Water Works, Inc.

(City forces, name of utility, co., or owner)

P.O. Box 191

(Street and Number)

Lake City, Florida 32055

(City or town)

This application is made under and in full accord with the provisions of Chapter 381, Section 381.031(1)(g)3 and 5 and Sections 381.251-381.291, inclusive, Florida Statutes. THE APPLICANTS AGREE THAT NO CHANGES IN OR DEVIATION FROM THE PLANS AND SPECIFICATIONS APPROVED BY THE DIVISION OF HEALTH WILL BE MADE EXCEPT WITH THE CONSENT AND APPROVAL OF THE DIVISION OF HEALTH. FURTHER, THE APPLICANTS AND/OR OWNERS AGREE TO THE SPECIFIC REQUIREMENTS RELATIVE TO OPERATION AND OPERATIONAL FUNDS THAT ARE MADE A PART OF THIS APPLICATION. (See Proviso No. 2.)

REMARKS:

Preparation of engineering documents certified by:

Normand Hodges

Signature: Engineer registered under Florida Statutes

Normand Hodges, P.E. 8038

Typed Name and Fla. Registration No.

4/2/74

John M. Espenship

Signature: Mayor, Chairman or President

John M. Espenship, President

Typed Name and Title of above

Joseph Lamar DuPree

Signature: City Clerk, Board Secretary, Etc.

Joseph Lamar DuPree, Secretary-Treasurer

Typed Name and Title of above

Signature: Agent for Utility supplying water if different

Typed Name and Title: Agent for Utility supplying water

Co-Signature: Agent for Operation and Maintenance if different

Typed Name and Title: Agent for Operation and Maintenance

ENGINEER'S  
SEAL



STATE OF FLORIDA  
Department of Health and Rehabilitative Services  
DIVISION OF HEALTH  
BUREAU OF SANITARY ENGINEERING  
POST OFFICE BOX 210  
JACKSONVILLE, FLORIDA 32201

## Information Regarding Proposed Water Works

Submit comprehensive engineer's report with all plans and in addition fill out such portions of the following as relate to the proposed works: (Use supplementary sheets, if necessary, and if data is shown on plans insert "see plans".)

Locality Azalea Park Subdivision Date March 4, 1974  
(Name of municipality, institution, etc.)

Owner's mail Address P.O. Box 191; Lake City, Florida 32055

Information furnished by Normand Hodges, 950 S. Ridgewood Dr. Engineer designing works.  
(Name and Address)  
Lake City, Florida 32055

Estimated total cost of project \$ 30,000.00

Water Treatment \$ 11,500.00

Distribution \$ 18,500.00

A - GENERAL

MGD Increase 0.040

1. Present Population (municipality, institution, etc.) 75

2. Design Population (additional served by this project) 320

Equivalent to 107 residential services.

3. Estimated population to be connected: 5 years X 10 years      20 years     

4. Present per capita consumption Unknown Per capita estimated future 125 gpd

5. Give any industrial users or abnormal demands None

6. Give characteristics present water (analysis attached if available) (hard, soft, colored, turbid, etc.) See analysis of test well on Lot No. 36

7. Characteristics proposed water (analysis attached) Same

8. Give source proposed water 2 - 6" Deep Wells  
(Deep well, shallow well, spring, surface)

9. Give sources pollution None

10. Sewage Disposal Individual Septic Tanks

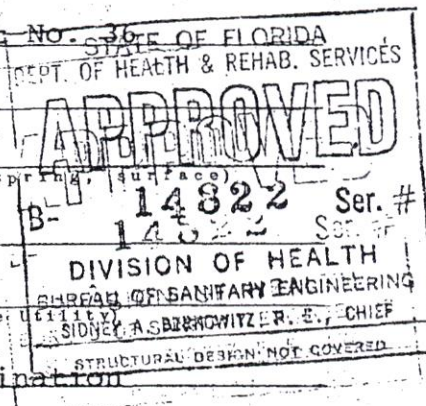
(Name and address of Sewerage Utility)

11. List treatment (softening, filtration, chlorination) Chlorination

12. Purified water storage: Capacity present elevated N.A. Ground N.A.

Capacity proposed elevated None Ground None

Static head relation pumping plant     





# B - WELL SUPPLY

## 1. Existing Wells

Numbers													
Sizes													
Depths													
Pump (Type)													
Capacity													

## 2. Proposed Wells

Numbers	1	2											
Sizes	6"	6"											
Depths	130	130											
Pump (Type)	Submersible												
Capacity	82gpm	82gpm											

Type construction Rotary Drilled Casing Steel

Give all geological data, including log of test wells or wells in vicinity (attach sheet)

3. Describe possible sources of contamination: None known

# C - SURFACE SUPPLIES

1. Name of stream, lake, or pond N.A.

2. Show by map watershed, towns or communities above intake, industrial plants, and in immediate vicinity, farm house, picnic grounds, abattoirs and other sources pollution, with distance from intake. Locate intake on map.

3. Size of watershed in square miles \_\_\_\_\_ Est. min. dry-weather flow at intake \_\_\_\_\_

4. Basis of min. dry-weather flow estimate \_\_\_\_\_

5. Existing Raw Water Pumps Proposed Raw Water Pumps

Type							
Capacity							
Suction Hd.							
Discharge Hd.							



Location suction and arrangement \_\_\_\_\_

i. Chlorination: Type Positive Displacement Capacity 0-30 gpd

Location \_\_\_\_\_ Point application \_\_\_\_\_

j. Measuring devices: Raw water: Type \_\_\_\_\_

Capacity \_\_\_\_\_ Filtered water: Type \_\_\_\_\_

Capacity \_\_\_\_\_

k. Laboratory - Room and bench space \_\_\_\_\_

Scope of tests provided for Chlorine Residual

l. Bypass to plant \_\_\_\_\_

Emergency intake \_\_\_\_\_

m. Is plant designed for 24-hour operation or what portion \_\_\_\_\_

n. List types & capacities of emergency well & service pumping units \_\_\_\_\_

Contractors equipment or standby generators

#### E - SERVICE PUMPING & DISTRIBUTION

1. Existing Service Pumps Proposed Service Pumps

Type						
Capacity						
Suction Hd.						
Discharge Hd.						

Remarks: \_\_\_\_\_

2. DISTRIBUTION SYSTEM

Interconnection with other system None cross connections None

Min. size pipe 2" Residual pressure at peak load 30 psi

Is fire control provided in design? No

Describe dead-end conditions and necessity for flushing Flush hydrants

List lengths of new pipe lines 6" and larger. None



# Orlando Laboratories, Inc.

P. O. Box 8025A • Orlando, Florida 32806 • 305 424-5606

## WATER ANALYSIS REPORT

## ANALYTICAL LABORATORY DIVISION

Report to: AZALEA PARK BUILDERS, INC.

Appearance: CLEAR

Date: AUGUST 24, 1971

Sampled by: CLIENT

Sample Number: 4722

Identification: PUBLIC WATER SYSTEM IN  
AZALEA PARK. SUBDIVISION IN  
COLUMBIA COUNTY, FLORIDA

### METHODS

This water was analyzed using methods adapted from "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

### RESULTS

Determination	p.p.m.	Determination	p.p.m.
Total Dissolved Solids, @ 105°C	<u>142</u>	Sulfate, as SO <sub>4</sub>	<u>0</u>
Total Hardness, as CaCO <sub>3</sub>	<u>141</u>	Fluorides, as F	<u>0.17</u>
Calcium Hardness, as CaCO <sub>3</sub>	<u>102</u>	Silica, as SiO <sub>2</sub>	<u>7</u>
Magnesium Hardness, as CaCO <sub>3</sub>	<u>39</u>	Copper, as Cu	<u>0.0</u>
Calcium, as Ca	<u>41</u>	Phosphate (Total), as PO <sub>4</sub>	<u>0.2</u>
Magnesium, as Mg	<u>9.4</u>	Color, Standard Platinum Cobalt Scale	<u>0</u>
Alkalinity (Phenolphthalein), as CaCO <sub>3</sub>	<u>0</u>	Odor	<u>0</u>
Alkalinity (Total), as CaCO <sub>3</sub>	<u>138</u>	pH (Laboratory)	<u>7.5</u>
Carbonate Alkalinity, as CaCO <sub>3</sub>	<u>0</u>	pHs	<u>7.5</u>
Bicarbonate Alkalinity, as CaCO <sub>3</sub>	<u>138</u>	Stability Index	<u>7.5</u>
Hydroxides, as OH	<u>0</u>	Saturation Index	<u>0</u>
Carbon Dioxide, as CO <sub>2</sub>	<u>9.6</u>	Turbidity, Silica Scale	<u>0</u>
Carbonates, as CO <sub>3</sub>	<u>0</u>		
Bicarbonates, as HCO <sub>3</sub>	<u>165</u>		
Chlorides, as Cl	<u>4</u>		
Iron, as Fe	<u>0.2</u>		
Manganese, as Mn	<u>0.0</u>		

Signed: J. Hobbs

Chemist

(To convert ppm to grains per gallon, divide ppm by 17.1)

INSPECTIONS, ANALYSIS, QUALITY CONTROL, RESEARCH & DEVELOPMENT IN MICROBIOLOGY, BIOCHEMISTRY & CHEMISTRY.

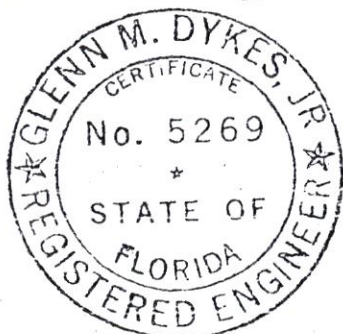


These plans for the proposed improvements cited in the foregoing application are hereby approved under authority of Chapter 381, Section 381.031(1)(g)3 and 5 and Sections 381.251-381.291, inclusive, Florida Statutes, with the following provisos:

1. Construction of this project must be commenced within one year from the date of this application; otherwise plans and specifications must be resubmitted for approval by this department. The engineer of record in this application is responsible for supervision of the construction of this project and upon completion shall inspect for complete conformity to the plans and specifications as approved. A report of such inspection in writing and signed by the engineer shall be rendered to the interested County Health Department and to the Division of Health, Bureau of Sanitary Engineering, P. O. Box 210, Jacksonville, Florida.
2. This approval is given with the understanding that upon the installation of such works, its operation shall be placed under the care of a competent person, whose qualifications are approved by the Division of Health, and the operation shall be carried out according to best accepted practice and in accordance with the requirements of the Division of Health Chapter 10D-11 F.A.C. This includes not only the provision of continuing essential funds for operation and maintenance of chemical supplies and facilities for plant operation; but also the funds for maintaining equipment and supplying the needs of a suitable water plant laboratory which is required for proper operation of this water treatment facility.
3. Water supply facilities including mains shall be installed, cleaned, disinfected, and bacteriologically cleared for service, in accordance with the latest applicable AWWA Standards and Chapter 10D-4 F.A.C.
4. Where water and sewer mains cross with less than 18' vertical clearance, the sewer will be 20' of either cast iron pipe or concrete encased vitrified clay pipe, centered on the point of crossing. When a water main parallels a sewer main, a separation of at least 10' should be maintained where practical.

Do Not Cut

The official copies of plans and specifications accompanying this application have been sealed and stamped with the serial number as indicated hereon. Only such plans and specifications are included in this approval and any erasures, additions or alterations affecting the efficiency of operation or public health protective value of the proposed improvements will make such approval null and void.



DIVISION OF HEALTH  
BUREAU OF SANITARY ENGINEERING

*W. B. Gault*  
Chief

By *Glenn M. Dykes, Jr.*  
Agent

MAY 1 2 1974



STATE OF FLORIDA  
Department of Health and Rehabilitative Services  
DIVISION OF HEALTH  
BUREAU OF SANITARY ENGINEERING  
POST OFFICE BOX 210  
JACKSONVILLE, FLORIDA 32201

# Information Regarding Proposed Water Works

Submit comprehensive engineer's report with all plans and in addition fill out such portions of the following as relate to the proposed works: (Use supplementary sheets, if necessary, and if data is shown on plans insert "see plans".)

Locality Azalea Park Subdivision Date March 4, 1974  
(Name of municipality, institution, etc.)

Owner's mail Address P.O. Box 191; Lake City, Florida 32055

Information furnished by Normand Hodges, 950 S. Ridgewood Dr. Engineer designing works.  
(Name and Address)  
Lake City, Florida 32055

Estimated total cost of project \$ 30,000.00 Water Treatment \$ 11,500.00  
Distribution \$ 18,500.00  
A - GENERAL MGD Increase 0.040

1. Present Population (municipality, institution, etc.) 75

2. Design Population (additional served by this project) 320

Equivalent to 107 residential services.

3. Estimated population to be connected: 5 years X 10 years      20 years     

4. Present per capita consumption Unknown Per capita estimated future 125 gpd

5. Give any industrial users or abnormal demands None

6. Give characteristics present water (analysis attached if available) (hard, soft, colored, turbid, etc.) See analysis of test well on Lot No. 38

7. Characteristics proposed water (analysis attached) Same

8. Give source proposed water 2 - 6" Deep Wells  
(Deep well, shallow well, spring, surface)

9. Give sources pollution None

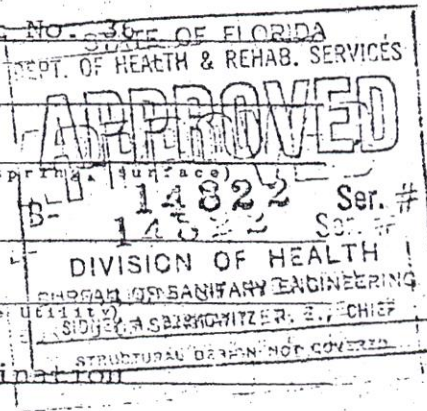
10. Sewage Disposal Individual Septic Tanks  
(Name and address of Sewerage Utility)

11. List treatment (softening, filtration, chlorination) Chlorination

12. Purified water storage: Capacity present elevated N.A. Ground N.A.

Capacity proposed elevated None Ground None

Static head relation pumping plant     





To the Division of Health:

DATE March 4, 1974

The Solid Water Works, Inc.

(Insert title of body making application, i.e., municipality, corporation or individual)

whose address is P.O. Box 191

(Street and Number)

Lake City, Florida 32055

(City)

authorized by law to act for the said Solid Water Works, Inc.

(Insert city, town or corporation)

and to expend its funds for water supply and treatment works, herewith submit for the consideration of the Division of Health, plans, specifications and other necessary data (including Form EWI-36) prepared by:

Normand Hodges

(Engineer or firm)

of 950 South Ridgewood Drive

(Address)

Lake City, Florida 32055

who is hereby authorized to represent the applicant in the engineering features including supervision of construction and appropriate certification as to compliance with the approved plans and specifications of this project for the installation of New wells, pumps, chlorinator, hydropneumatic tank and Dist. sys.

(Clearly describe: new system, new plant, modification, extension)

to serve Azalea Park S/D

(Subdivision, plant, school, other)

located at N $\frac{1}{2}$  Sec. 19, T4S, R17 E.

(Approximate location)

in/near the city of Lake City

in the county of Columbia

State of Florida, as required by the regulations of the Division of Health and herewith make application to the Division of Health for the approval of this project.

These plans, specifications and related documents will be approved and accepted by Directors

(Board, Council, Directors, Etc.)

when they have received the approval of the Division of Health.

Upon construction, these facilities will be owned by Solid Water Works, Inc.

and will be

operated and maintained by Same

(City forces, name of utility, co., or owner)

whose address is Solid Water Works, Inc.

P.O. Box 191

(Street and Number)

Lake City, Florida 32055

(City or town)

This application is made under and in full accord with the provisions of Chapter 381, Section 381.031(1)(g)3 and 5 and Sections 381.251-381.291, inclusive, Florida Statutes. THE APPLICANTS AGREE THAT NO CHANGES IN OR DEVIATION FROM THE PLANS AND SPECIFICATIONS APPROVED BY THE DIVISION OF HEALTH WILL BE MADE EXCEPT WITH THE CONSENT AND APPROVAL OF THE DIVISION OF HEALTH. FURTHER, THE APPLICANTS AND/OR OWNERS AGREE TO THE SPECIFIC REQUIREMENTS RELATIVE TO OPERATION AND OPERATIONAL FUNDS THAT ARE MADE A PART OF THIS APPLICATION. (See Proviso No. 2.)

REMARKS:

Preparation of engineering documents certified by:

Normand Hodges

Signature: Engineer registered under Florida Statutes

Normand Hodges, P.E. 8038

Typed Name and Fla. Registration No.

4/2/74

ENGINEER'S  
SEAL

John M. Espenship

Signature: Mayor, Chairman or President

John M. Espenship, President

Typed Name and Title of above

Joseph Lamar DuPree

Signature: City Clerk, Board Secretary, Etc.

Joseph Lamar DuPree, Secretary-Treasurer

Typed Name and Title of above

Signature: Agent for Utility supplying water if different

Typed Name and Title: Agent for Utility supplying water

Co-Signature: Agent for Operation and Maintenance if different

Typed Name and Title: Agent for Operation and Maintenance



# INFORMATION REGARDING PROPOSED PUBLIC WATER WORKS

Submit comprehensive engineering report with all plans and specifications, and complete such portions of this form as relate to the treatment (Use supplemental sheets if necessary.)

Name of Water System Supplying Water Solid Water Works, Inc.

Previous approval Serial Number None

Est. Cost this Project: Supply \$ 8,900.00 Treatment \$ 3,500.00 Distribution \$ 18,500.00

## EXISTING SUPPLY AND TREATMENT FACILITIES:

Total \$ 30,000.00

Supply None (other than individual wells) MGD, Treatment \_\_\_\_\_ MGD

Storage: Ground \_\_\_\_\_ gal. Elev. \_\_\_\_\_ gal: Pressure Tank \_\_\_\_\_ gal.

Service Pumping \_\_\_\_\_ gpm

Capacity of emergency pumping units: Well \_\_\_\_\_ gpm, service \_\_\_\_\_ gpm

Utility is Capable of Supplying \_\_\_\_\_ Equivalent Residential Connections.

Max. Daily output \_\_\_\_\_ MG. \_\_\_\_\_ date \_\_\_\_\_ Equivalent Residential Connections \_\_\_\_\_

## PROPOSED IMPROVEMENT OR DISTRIBUTION EXTENSION:

Plant increase 0.040 MGD

Supply: 2 - 6" wells Pressure Tank 3,000 gal

Plant: Aerator N.A. Gnd. Storage N.A. Elve. Storage N.A.

Chlorinator Positive displacement hypochlorinator Service pumping N.A. gpm

Aux. Power for \_\_\_\_\_

Present Population (municipality, institution, etc.) 75

Additional Population (served by this project) 320 Equivalent to 107 residential services.

Estimated population to be connected: 5 years X 10 years \_\_\_\_\_ 20 years \_\_\_\_\_

Present per capita consumption Unknown Per capita estimated future 125 gpd

Give any industrial users or abnormal demands None

Interconnection with other system None cross connections None

Min. size pipe 2 Residual pressure at peak load 30 psi Is fire control provided? No

Describe dead-end conditions and necessity for flushing Flush Hydrant

List lengths of new pipe lines 6" and larger None

Remarks \_\_\_\_\_



h. Clear well: Location N.A.

Capacity                      Dimensions                     

Location suction and arrangement                     

i. Chlorination: Type Positive Displacement Capacity 0-30 gpd

Location                      Point application                     

j. Measuring devices: Raw water: Type                     

Capacity                      Filtered water: Type                     

Capacity                     

k. Laboratory - Room and bench space                     

Scope of tests provided for Chlorine Residual

l. Bypass to plant                     

Emergency intake                     

m. Is plant designed for 24-hour operation or what portion                     

n. List types & capacities of emergency well & service pumping units                     

Contractors equipment or standby generators

#### E - SERVICE PUMPING & DISTRIBUTION

1. Existing Service Pumps

Proposed Service Pumps

Type						
Capacity						
Suction Hd.						
Discharge Hd.						

Remarks:                     

2.

#### DISTRIBUTION SYSTEM

Interconnection with other system None cross connections None

Min. size pipe 2" Residual pressure at peak load 30 psi

Is fire control provided in design? No

Describe dead-end conditions and necessity for flushing Flush hydrants

List lengths of new pipe lines 6" and larger. None



## B - WELL SUPPLY

### 1. Existing Wells

Numbers												
Sizes												
Depths												
Pump (Type)												
Capacity												

### 2. Proposed Wells

Numbers	1	2										
Sizes	6"	6"										
Depths	130	130										
Pump (Type)	Submersible											
Capacity	82gpm	82gpm										

Type construction Rotary Drilled Casing Steel

Give all geological data, including log of test wells or wells in vicinity (attach sheet)

3. Describe possible sources of contamination: None known

## C - SURFACE SUPPLIES

- Name of stream, lake, or pond N.A.
- Show by map watershed, towns or communities above intake, industrial plants, and in immediate vicinity, farm house, picnic grounds, abattoirs and other sources pollution, with distance from intake. Locate intake on map.
- Size of watershed in square miles \_\_\_\_\_ Est. min. dry-weather flow at intake \_\_\_\_\_
- Basis of min. dry-weather flow estimate \_\_\_\_\_

### 5. Existing Raw Water Pumps Proposed Raw Water Pumps

Type						
Capacity						
Suction Hd.						
Discharge Hd.						





DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

Emmett S. Roberts, Secretary

OLIVER J. FELDER

STATE OF FLORIDA

Reubin O'D Askew, Governor

# DIVISION OF HEALTH

POST OFFICE BOX 210

Wilson T. Sowder, M.D., M.P.H., Director

JACKSONVILLE, FLORIDA 32201

PHONE (904) 354-3961

May 2, 1974

Norman Hedden, P. E.  
Consulting Engineer  
100 South River Road Drive  
Lake City, Florida 32855

Columbia County  
2011 1st Street, S.E.  
(Lake City, Florida 32855)

M  
6

Dear Mr. Hodges:

This will acknowledge receipt of plans and related documents pertaining to installation of a water distribution system for the (1) water tower, one (1) hydro-pneumatic tank and (2) pump house located at the site of the Lake City, Columbia County.

Effective May 1, 1974

approved under Serial No.

the above project plans and documents are

SUBJECT TO PROVISOS ON APPLICATION FORM.

This approval pertains only to the water utilities serving this development and is not to be construed as approval of any other utility aspects. All concerned are reminded that sewerage facilities must be cleared through the appropriate office of the Department of Pollution Control.

By copy of this letter to the owner, we are advising that approval is given functional aspects of this project on the basis of representations to and data furnished this department.

The engineer's certification as to construction of this project in accordance with the approved plans together with satisfactory bacteriological analyses shall be provided and a letter of clearance obtained from this Agency before placing these facilities in service.

There may be county, municipal or other local regulations or restrictions to be complied with by the owner prior to construction of the facilities represented by the plans referred to above, and we, therefore, recommend that appropriate local agencies be consulted before starting construction.

Within the next few days, sets of the approved materials will be returned to you. Thank you for your cooperation.

Yours very truly,

cc: Mr. J. M. Dykes, Jr., P. E.  
cc: Mr. J. M. Dykes, Jr., P. E.  
cc: Mr. J. M. Dykes, Jr., P. E.  
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cc: Mr. J. M. Dykes, Jr., P. E.

G. M. Dykes, Jr., P. E.  
Administrator,  
Water Supply Section  
Bureau of Sanitary Engineering



STATE OF FLORIDA  
PROBATE COURT

PROBATE COURT

ADMINISTRATIVE RECORDS

ADMINISTRATIVE RECORDS

THE FOLLOWING IS A SUMMARY OF THE PROCEEDINGS IN THE MATTER OF THE ESTATE OF JAMES M. DUEK, DECEASED, AS SET FORTH IN THE PETITION FOR PROBATE OF THE WILL OF SAID DECEASED, FILED IN THE PROBATE COURT OF THE STATE OF FLORIDA, IN THE COUNTY OF DALLAS, TEXAS, ON THE 10TH DAY OF JANUARY, 1964, AND IN THE ORDER OF THE COURT DATED AND ENTERED ON THE 10TH DAY OF JANUARY, 1964.

THE PETITIONER, JAMES M. DUEK, JR., HAS BEEN APPOINTED AS ADMINISTRATOR OF THE ESTATE OF SAID DECEASED, AND HAS BEEN REQUIRED TO FILE AN ACCOUNT OF HIS ADMINISTRATION OF SAID ESTATE WITHIN THE TIME SPECIFIED IN THE ORDER OF THE COURT.

THE PETITIONER HAS FILED AN ACCOUNT OF HIS ADMINISTRATION OF SAID ESTATE, AND THE COURT HAS ORDERED THAT SAID ACCOUNT BE RECORDED IN THE OFFICE OF THE CLERK OF THE PROBATE COURT.

THE COURT HAS ORDERED THAT THE PETITIONER BE AND REMAIN BONDLESS IN THE PERFORMANCE OF HIS DUTIES AS ADMINISTRATOR OF SAID ESTATE.

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THE COURT HAS ORDERED THAT THE PETITIONER BE AND REMAIN BONDLESS IN THE PERFORMANCE OF HIS DUTIES AS ADMINISTRATOR OF SAID ESTATE.

*James Duek*



CLAUDE R. KIRK, JR.  
GOVERNOR

STATE OF



FLORIDA

JAMES A. BAX  
SECRETARY

DEPARTMENT of HEALTH and REHABILITATIVE SERVICES

DIVISION OF HEALTH

WILSON T. SOWDER, M.D., M.P.H., DIRECTOR  
BOX 210—JACKSONVILLE 32201—TEL. 904 - 354-3961

May 5, 1971

Columbia County

Azalea Park Subdivision

WSW  
/56

Mr. Donald Hall  
North Florida Well Drilling  
P. O. Box 1174  
Lake City, Florida

Dear Mr. Hall:

Issued herewith is the permit for well construction requested in your recent application. Please submit a copy of the well log to this office and a copy of the well log together with the cutting samples to the Bureau of Geology, Drawer 631, Tallahassee, as required by the Sanitary Code of Florida. The Bureau of Geology will furnish sample bags upon request.

PERMIT CONSTRUCT WATER SUPPLY WELL

GRANTED TO: North Florida Well Drilling No. 7164

Azalea Park Builders, Inc. P. O. Box 343, Lake City, Fla. 32055  
(OWNER OF PROPOSED WELL) (OWNER'S ADDRESS)

WELL LOCATION: SR - 47 Lake City Columbia  
(CITY, TOWN OR OTHER LOCATION) (COUNTY)

PURPOSE OR USE OF PROPOSED WELL: To supply Azalea Park Subdivision

(NOTE: Permission is not hereby granted for actual use of water from the well as such permission will depend upon bacteriological, physical and chemical qualities of the water as indicated by proper laboratory analyses of samples from the completed well. INSPECTION HAS BEEN MADE OF THIS PROPOSED WATER WELL SITE BY A DULY AUTHORIZED OFFICER OF THE DIVISION OF HEALTH, AND PERMISSION IS GRANTED FOR CONSTRUCTION OF THIS WELL IN ACCORDANCE WITH CHAPTER 381, SECTION 381.031(1)(g)3, FLORIDA STATUTES, AND CHAPTER 170C-1, WATER SUPPLIES, SECTIONS 170C-1.10—170C-1.14, INCLUSIVE, FLORIDA ADMINISTRATIVE CODE, THE SANITARY CODE OF FLORIDA.

Granted this 5th day of May 19 71

Issued by:  
BUREAU OF SANITARY ENGINEERING

J. B. Miller  
ADMINISTRATOR, WATER SUPPLY SECTION

Approved:

Wilson T. Sowder, M.D.  
DIRECTOR

THIS PERMIT IS NOT TRANSFERABLE

This permit does not imply approval of sewage disposal or other facilities in the area to be supplied by the completed well.

In addition to the above provisions, compliance with the special items marked on the reverse of this sheet shall be required. Thank you for your cooperation.

JBM/EDH:mc  
Encl.

Very truly yours,

cc: CHD  
cc: Reg. Eng. ✓  
cc: Bureau of Geology  
cc: Owner

J. B. Miller, P.E.  
Administrator, Water Supply Section  
Bureau of Sanitary Engineering

ADVISORY COUNCIL

E. COLEMAN BREWER, PH.G., Member  
LEO M. WACHTEL, M.D., Member

(Over)

EUGENE G. PEEK, Jr., M.D., President

WILLIAM J. WEBER, D.V.M. Member  
A. B. GALLOWAY, D.D.S., Member



J. P. Robinson

1. ( ) This permit is for the purpose of drilling a test or exploratory well, which, if the water proves to be acceptable, will serve as a source of raw water for a public water system.
2. ( ) A sketch of well location, pumping facilities and piping shall be furnished the local health department.
3. (✓) Engineering plans and related documents covering this well, pump and piping installation are required to be submitted to this office, in quadruplicate, for our review toward approval.
4. ( ) The construction of the proposed well must be in compliance with the engineering plans and specifications approved by this agency under Serial No. \_\_\_\_\_ dated \_\_\_\_\_
5. ( ) This well shall be drilled in accordance with the well field plan and specifications prepared by \_\_\_\_\_ and submitted to this agency.
6. (✓) A complete chemical analysis on a sample of water from the completed well made by a reputable commercial laboratory specializing in that work shall be furnished this agency. This analysis shall indicate the content of the chemical compounds that usually comprise such reports and also shall include the following special determinations:  

(✓) a. Hydrogen Sulfide (H<sub>2</sub>S) (field test)      (✓) b. Fluoride (F)

( ) c. Other \_\_\_\_\_
7. ( ) Please advise this agency the name and mailing address of the water system that this well is to supply.
8. (✓) Please request the county health department's assistance in obtaining the bacteriological clearance of the well.
9. ( ) Other \_\_\_\_\_



REUBIN O'D. ASKEW  
GOVERNOR

STATE OF



FLORIDA

EMMETT S. ROBERTS  
SECRETARY

DEPARTMENT of HEALTH and REHABILITATIVE SERVICES

DIVISION OF HEALTH

WILSON T. SOWDER, M.D., M.P.H., DIRECTOR  
BOX 210—JACKSONVILLE 32201—TEL. 904 - 354-3961

Columbia County WSW  
Azalea Park Subdivision

North Florida Well Drilling, Inc.  
Post Office Box 1174  
Lake City, Florida 32055

Issued herewith is the permit for well construction requested in your recent application. Please submit a copy of the well log to this office and a copy of the well log, to the Bureau of Geology, Drawer 631, Tallahassee, as required by the Sanitary Code of Florida. Use of this well will depend upon compliance with possible request for submission of information and cutting samples as may be made by the Bureau of Geology. The Bureau of Geology will furnish sample bags upon request.

PERMIT CONSTRUCT WATER SUPPLY WELL

GRANTED TO: North Florida Well Drilling, Inc.

No. 9075

North Florida Utilities, Inc.

P. O. Box 1174, Lake City, Florida

(OWNER OF PROPOSED WELL)

(OWNER'S ADDRESS)

WELL LOCATION: Section 19, Township 4 South, Range 17 East

CITY, TOWN OR OTHER LOCATION)

COLUMBIA  
(COUNTY)

PURPOSE OR USE OF PROPOSED WELL: to supply North Fla. Utilities, Inc. (Azalea Park S/D)

Note: Permission for use of water from this well will depend upon compliance with possible request for submission of information and cutting samples as may be made by the Bureau of Geology and also upon bacteriological, physical and chemical qualities of the water as indicated by proper laboratory analyses of samples from the completed well.

INSPECTION HAS BEEN MADE OF THIS PROPOSED WATER WELL SITE BY A DULY AUTHORIZED OFFICER OF THE DIVISION OF HEALTH, AND PERMISSION IS GRANTED FOR CONSTRUCTION OF THIS WELL IN ACCORDANCE WITH CHAPTER 381, SECTION 381.031(1)(g)3, FLORIDA STATUTES, AND CHAPTER 10D-4, WATER SUPPLIES, SECTIONS 10D-4.10—10D-4.14, INCLUSIVE, FLORIDA ADMINISTRATIVE CODE, THE SANITARY CODE OF FLORIDA.

Granted this 31st day of August 1973

Issued by:

BUREAU OF SANITARY ENGINEERING

Approved:

Wilson T. Sowder, M.D.

G. M. Dykes, Jr.

ADMINISTRATOR, WATER SUPPLY SECTION

DIRECTOR

THIS PERMIT IS NOT TRANSFERABLE

This permit does not imply approval of sewage disposal or other facilities in the area to be supplied by the completed well.

In addition to the above provisions, compliance with the special items marked on the reverse of this sheet shall be required. Thank you for your cooperation.

Very truly yours,

G. M. Dykes, Jr.

cc: CHD Columbia

cc: Reg. Engr. Jerry Owen

cc: Bureau of Geology

cc: Owner

G. M. Dykes, Jr., P. E., Administrator  
Water Supply Section  
Bureau of Sanitary Engineering

GMD:EDH:mt

ADVISORY COUNCIL

>e<

(Over)

E. COLEMAN BREWER, PH.G., Member  
J. M. COHEN, D.O., Member

EUGENE G. PEEK, JR., M.D., President  
WILLIAM FREDERICK LINDSEY, M.D., Member

MRS. SAM BAILEY, Member  
WILLIAM O. SHUMPERT, D.D.S., Member



1. ( ) This permit is for the purpose of drilling a test or exploratory well, which, if the water proves to be acceptable, will serve as a source of raw water for a public water system.
2. ( ) A sketch of well location, pumping facilities and piping shall be furnished the local health department.
3. (X) Engineering plans and related documents covering this well, pump and piping installation are required to be submitted to this office, in quadruplicate, for our review toward approval.
4. ( ) The construction of the proposed well must be in compliance with the engineering plans and specifications approved by this agency under Serial No. \_\_\_\_\_ dated \_\_\_\_\_
5. ( ) This well shall be drilled in accordance with the well field plan and specifications prepared by \_\_\_\_\_ and submitted to this agency.
6. (X) A complete chemical analysis on a sample of water from the completed well made by a reputable commercial laboratory specializing in that work shall be furnished this agency. This analysis shall indicate the content of the chemical compounds that usually comprise such reports and also shall include the following special determinations:  
(X) a. Hydrogen Sulfide ( $H_2S$ ) (field test)      (X) b. Fluoride (F)  
( ) c. Other \_\_\_\_\_
7. ( ) Please advise this agency the name and mailing address of the water system that this well is to supply.
8. (X) Please request the county health department's assistance in obtaining the bacteriological clearance of the well.
9. ( ) Other \_\_\_\_\_



Lynch Well Drilling

NAME

Azalea Park

ADDRESS

North Well

WELL SIZE

6

PUMP TYPE

Sub

WELL DEEP

140

PUMP MFG.

Barnes

CASING DEEP

80

PUMP SIZE

5

WATER AT FT.

62

PUMP MODEL

607-5-3

PUMP AT FT.

84

PUMP SERIAL

34516-674

DRILLED BY

-

POWER

220-3ph

DATE DRILLED

7-15-74

DATE INSTALLED

7-19-74

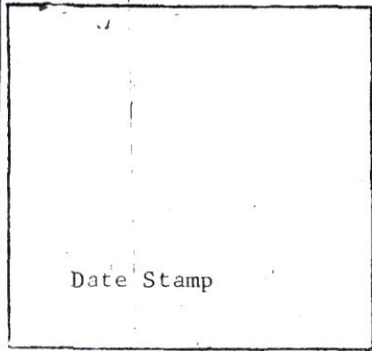
REMARKS:

Pump delivers 50 PM at 75 ft

40# - 89 20 PM

60# - 66 20 PM

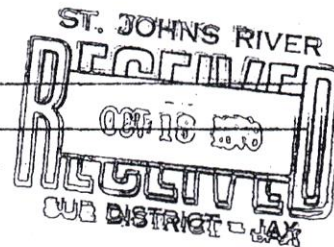




Date Stamp

County \_\_\_\_\_  
Well Permit No. \_\_\_\_\_

STATE OF FLORIDA  
Department of Health and Rehabilitative Services  
DIVISION OF HEALTH  
BUREAU OF SANITARY ENGINEERING  
POST OFFICE BOX 310  
JACKSONVILLE, FLORIDA 32201



### WATER SUPPLY WELL LOG

1. Well to serve: Anchor Park Subdivision Well 42 North
2. Well location: South East Corner of Subdivision  
Nearest Post Office: Lake City Section: 16 Twsp: 12 South Range: 17 East  
Direction from Post Office: South Distance from Post Office: 1 1/2 miles
3. Owner: Consolidated Water Works Address: Bay Ave, Lake City, Fla.
4. Driller: Lynch Well Drilling Address: Box 6 Bay Ave, Lake City, Fla.
5. Can site be flooded? (Yes) (No) Elevation: \_\_\_\_\_ feet  
(Reference Mean Sea Level)
6. Date well started: 10/13 7/17 Date Completed: 10/24
7. Sizes and lengths of casings 62 feet of 60 inch  
\_\_\_\_\_ feet of \_\_\_\_\_ inch  
Total depth cased: 62 Depth of well: 140  
Bottom of casing seated at 790 foot depth.
8. Does water flow at surface without pumping? no Natural yield, if flowing \_\_\_\_\_ GPM  
If not flowing, how far below surface does it stand? 62
9. Yield by pumping 100 GPM. How many feet is water lowered by pumping? 4
10. Water quality Excellent For what purpose is water to be used? Potable
11. Below on this sheet give Driller's Log, record of cavities, analysis of water and other facts not provided for above. Continue on back, if necessary. Note each material found:

Name of person filling out blank: H. P. Lynch

Date: 11/5 Address: Box 6 Bay Ave, Lake City Fla.

NOTE: If preferred the Bureau of Geology Well Log blank may be used.

(Over)



1. ( ) This permit is for the purpose of drilling a test or exploratory well, which, if the water proves to be acceptable, will serve as a source of raw water for a public water system.
2. ( ) A sketch of well location, pumping facilities and piping shall be furnished the local health department.
3. ☒ Engineering plans and related documents covering this well, pump and piping installation are required to be submitted to this office, in quadruplicate, for our review toward approval.
4. ( ) The construction of the proposed well must be in compliance with the engineering plans and specifications approved by this agency under Serial No. \_\_\_\_\_ dated \_\_\_\_\_
5. ( ) This well shall be drilled in accordance with the well field plan and specifications prepared by \_\_\_\_\_ and submitted to this agency.
6. ☒ A complete chemical analysis on a sample of water from the completed well made by a reputable commercial laboratory specializing in that work shall be furnished this agency. This analysis shall indicate the content of the chemical compounds that usually comprise such reports and also shall include the following special determinations:
- (X) a. Hydrogen Sulfide (H<sub>2</sub>S) (field test) (X) b. Fluoride (F)
- ( ) c. Other \_\_\_\_\_
7. ( ) Please advise this agency the name and mailing address of the water system that this well is to supply.
8. ☒ Please request the county health department's assistance in obtaining the bacteriological clearance of the well.
9. ( ) Other \_\_\_\_\_

TM Owen





DEPARTMENT of HEALTH and REHABILITATIVE SERVICES

DIVISION OF HEALTH

WILSON T. SOWDER, M.D., M.P.H., DIRECTOR  
BOX 210—JACKSONVILLE 32201—TEL. 904 - 354-3961

June 11, 1974

Lynch Well Drilling  
Route 6, Box 464  
Lake City, Florida 32055

Columbia County WSW  
Azalea Park Sub-Division

Gentlemen:

Issued herewith is the permit for well construction requested in your recent application. Please submit a copy of the well log to this office and a copy of the well log, to the Bureau of Geology, Tallahassee, as required by the Sanitary Code of Florida. Use of this well will depend upon compliance with possible request for submission of information and cutting samples as may be made by the Bureau of Geology. The Bureau of Geology will furnish sample bags upon request.

PERMIT CONSTRUCT WATER SUPPLY WELL

GRANTED TO: Lynch Well Drilling No. 9636  
Azalea Park Sub-Division P. O. Box 964, Lake City, Florida 32055  
(OWNER OF PROPOSED WELL) (OWNER'S ADDRESS)

WELL LOCATION: Section 19, Township 4 South, Range 17 East Columbia  
CITY, TOWN OR OTHER LOCATION (COUNTY)

PURPOSE OR USE OF PROPOSED WELL: Azalea Park Sub-Division

Note: Permission for use of water from this well will depend upon compliance with possible request for submission of information and cutting samples as may be made by the Bureau of Geology and also upon bacteriological, physical and chemical qualities of the water as indicated by proper laboratory analyses of samples from the completed well.

INSPECTION HAS BEEN MADE OF THIS PROPOSED WATER WELL SITE BY A DULY AUTHORIZED OFFICER OF THE DIVISION OF HEALTH, AND PERMISSION IS GRANTED FOR CONSTRUCTION OF THIS WELL IN ACCORDANCE WITH CHAPTER 381, SECTION 381.031(1)(g)3, FLORIDA STATUTES, AND CHAPTER 10D-4, WATER SUPPLIES, SECTIONS 10D-4.10—10D-4.14, INCLUSIVE, FLORIDA ADMINISTRATIVE CODE, THE SANITARY CODE OF FLORIDA.

Granted this 11th day of June 19 74

Issued by:  
BUREAU OF SANITARY ENGINEERING

G. M. Dykes, Jr.

ADMINISTRATOR, WATER SUPPLY SECTION

Approved:

William T. Sowder, M.D.

DIRECTOR

THIS PERMIT IS NOT TRANSFERABLE

This permit does not imply approval of sewage disposal or other facilities in the area to be supplied by the completed well.

In addition to the above provisions, compliance with the special items marked on the reverse of this sheet shall be required. Thank you for your cooperation.

GMD/EDH:k1p

cc: CHD

cc: Reg. Eng. Mr. J. M. Owen

cc: Bureau of Geology

cc: Owner

Very truly yours,

G. M. Dykes, Jr.

G. M. Dykes, Jr., P. E., Administrator  
Water Supply Section  
Bureau of Sanitary Engineering

ADVISORY COUNCIL

>O<

E. COLEMAN BREWER, PH.G., Member  
J. M. COHEN, D.O., Member

(Over)

EUGENE G. PEEK, JR., M.D., President  
WILLIAM FREDERICK LINDSEY, M.D., Member

MRS. SAM BAILEY, Member  
WILLIAM O. SHUMPERT, D.D.S., Member



1. ( ) This permit is for the purpose of drilling a test or exploratory well, which, if the water proves to be acceptable, will serve as a source of raw water for a public water system.
2. ( ) A sketch of well location, pumping facilities and piping shall be furnished the local health department.
3. ☒ Engineering plans and related documents covering this well, pump and piping installation are required to be submitted to this office, in quadruplicate, for our review toward approval.
4. ( ) The construction of the proposed well must be in compliance with the engineering plans and specifications approved by this agency under Serial No. \_\_\_\_\_ dated \_\_\_\_\_
5. ( ) This well shall be drilled in accordance with the well field plan and specifications prepared by \_\_\_\_\_ and submitted to this agency.
6. (X) A complete chemical analysis on a sample of water from the completed well made by a reputable commercial laboratory specializing in that work shall be furnished this agency. This analysis shall indicate the content of the chemical compounds that usually comprise such reports and also shall include the following special determinations:
- (X) a. Hydrogen Sulfide ( $H_2S$ ) (field test) (X) b. Fluoride (F)
- ( ) c. Other \_\_\_\_\_
7. ( ) Please advise this agency the name and mailing address of the water system that this well is to supply.
8. (X) Please request the county health department's assistance in obtaining the bacteriological clearance of the well.
9. ( ) Other \_\_\_\_\_

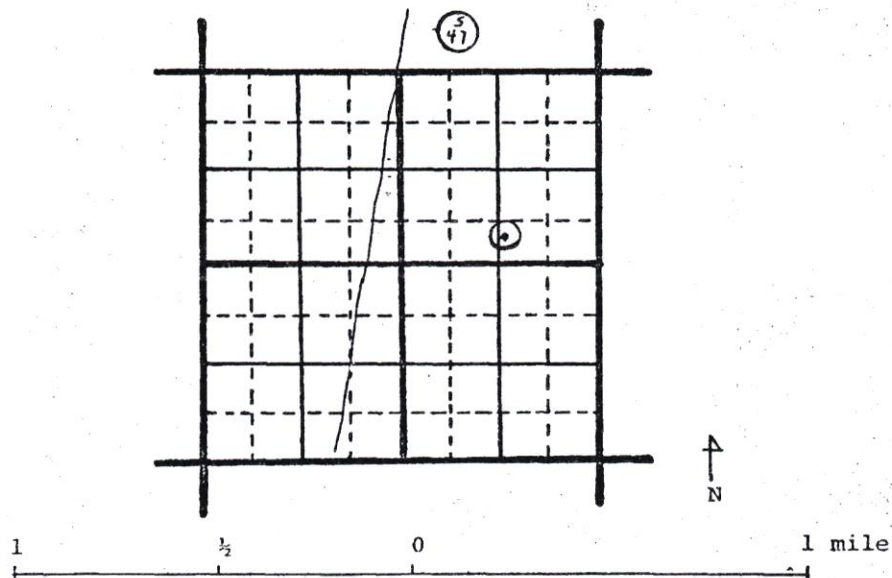
Mr. Owen



# WATER WELL LOCATION

SUWANNEE RIVER WATER MANAGEMENT DISTRICT  
P.O. Drawer K  
White Springs, Fl 32096

Location of well \_\_\_\_\_ 81A \_\_\_\_\_ Columbia  
street address TWP City County  
 $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NE Sec. 19 T 4 (S) R 17 W  
Long. 823850 Lat. 300739 Surface elevation 105 ft.  
Well located by MP - TBM Date 6/25/75  
Owner Azalea Park Sub. #2 SR 47 South  
Name Address Telephone  
Well driller Lynch Well completion No. 4257



## Comments:

White block building .8 miles north of I-75, in Azalea Park  
on the intersection of Rose and Orchid Streets.

Water Sample #00038



STATE OF FLORIDA  
WATER WELL CONTRACTOR'S NOTIFICATION  
OF CONSTRUCTION OR REPAIR OF A WATER WELL  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF INTERIOR RESOURCES  
505 Larson Building, Tallahassee, Florida 32304  
Telephone: (904) 488-8476

Water Sample # 00038

Permit No. \_\_\_\_\_

Owner's Well Identification

Nº 4257

State Well Number  
For Department Use  
ONLY

1. OWNER: <u>Azalea Park Subdivision</u> Name <u>Bay Ave. Lake City Fla.</u> Address City State				14. WELL LOG:				
2. LOCATION OF WELL: <u>47 South</u> Street Address/Road <u>Lake City Columbia</u> City County <u>Azalea Park #1 South</u> Subdivision Lot No. <u>19 45 17E</u> Section Township Range				Well bore (in)		Depth (feet)		Note each type of material, producing zones, & cavities if any. Give description at not less than 20 foot intervals and at changes.
3. PURPOSE OF WELL: <input type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input checked="" type="checkbox"/> Public Supply <input type="checkbox"/> Industrial <input type="checkbox"/> Stock <input type="checkbox"/> Other				From		To		
4. TYPE OF WORK: <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Plugging <input type="checkbox"/> Other <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning				9 1		8		
5. QUALITY: <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Colored <input type="checkbox"/> Sulfur <input type="checkbox"/> Salty <input type="checkbox"/> Other CHECK TEST MADE <input type="checkbox"/> None <input checked="" type="checkbox"/> Bacteria <input checked="" type="checkbox"/> Chemical Chloride <u>      </u> PPM (Check <input type="checkbox"/> if test was for sodium chloride) Temperature <u>72</u> °F Well Disinfected <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Test By: <input checked="" type="checkbox"/> County Health Dept. <input checked="" type="checkbox"/> State Health Dept. <input type="checkbox"/> U.S.G.S. <input checked="" type="checkbox"/> Other <u>Dow Lab</u> Name <u>Rox 3362 Orlando</u> Address				6 8		20		
6. EQUIPMENT: <input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other <input type="checkbox"/> Jet <input type="checkbox"/> Reverse Rotary				6 20		30		
7. GROUT: <input checked="" type="checkbox"/> None <input type="checkbox"/> Cement <input type="checkbox"/> Other Describe and give number of bags (94)lb. From (ft) To (ft)				6 30		40		
8. CASING AND LINER PIPE: Diameter (inches) Kind From (ft) To (ft) <u>6" casing driven</u> <u>1</u> <u>78</u> (Check One) <input type="checkbox"/> Threaded & Coupled <input checked="" type="checkbox"/> Welded Only <input type="checkbox"/> T & C Welded <input type="checkbox"/> Other				6 40		50		
9. WATER LEVEL: Water level after well completed <u>62</u> feet <input type="checkbox"/> Above <input checked="" type="checkbox"/> Below land surface Well Flowing: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Flow <u>      </u> gal/min				6 50		60		
10. SCREENS: Make Materials Diameter (in) Slot Size From (ft) To (ft) Location (ft) Below Surface				6 60		70		
11. UPPER END OF WELL: <input checked="" type="checkbox"/> Pump Installed <input type="checkbox"/> Valve <input type="checkbox"/> Cap <input type="checkbox"/> Other				6 70		80		
12. PUMPING TEST: Date <u>      </u> <input type="checkbox"/> Test Pump <input type="checkbox"/> Permanent Pump Measure point is <u>      </u> feet <input type="checkbox"/> above <input type="checkbox"/> below land surface which is <u>      </u> feet <input type="checkbox"/> above <input type="checkbox"/> below land surface Static water level <u>      </u> feet <input type="checkbox"/> above <input type="checkbox"/> below measure point Maximum Drawdown <u>      </u> feet below measure point Discharge at maximum drawdown <u>      </u> gal/min After <u>      </u> hours				6 80		90		
13. PUMP INSTALLED: Type <u>Sub</u> Make <u>Barnes</u> Model No. <u>607-3</u> Motor Power <u>5</u> Make <u>Barnes</u> H.P. <u>5</u> Capacity <u>100</u> Gal/min at <u>100</u> ft of total dynamic head No. of bowls or stages <u>5</u> Pump setting <u>84</u> feet				6 90		100		
				6 100		140		

15. CONTRACTOR'S CERTIFICATION:

This work was done under my jurisdiction and this report is true to the best of my knowledge and belief. The work commenced on 7/25/74 and was completed on       

Lynch Well Drilling 7274  
Contractor License Number  
Pat Lynch PT. 6 Box 484  
Signature of Representative P.O. Box or Street  
Lake City Columbia Fla.  
City County State  
752-6677 Pat Lynch  
Phone Number Driller



**LARGE NUMBER  
OF MAPS  
SCANNED  
SEPARATELY**





Lawton Chiles  
Governor

Florida Department of  
Environmental Protection

Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, Florida 32256-7577

Virginia B. Wetherell  
Secretary

January 14, 1994

Mr. Jack Espenship  
Consolidated Water Works  
Post Office Box 191  
Lake City, Florida 32056

Columbia County - Potable Water  
Transfer of Drinking Water System Permit/Ownership  
242 Village  
PWS ID: 2124295

Dear Mr. Espenship:

The Department acknowledges receipt of the "Application for Transfer of Drinking Water System/Permit" for the 242 Village water system owned by Mr. Bill Blackwell. The application indicates that the new owner is Consolidated Water Works.

After evaluating this request, the Department is transferring the records and files of the facility under the new owner:

Consolidated Water Works  
Jack Espenship  
Post Office Box 191  
Lake City, Florida 32056

This approval is given with the understanding that the new owner, Consolidated Water Works, will operate and maintain the water facilities in accordance with the requirements set forth in Chapter 17-550, 17-551, 17-555 and 17-560, FAC. A copy of these regulations are enclosed for your information.

Please contact this office if you have any questions or need additional information.

Sincerely,

*Blanca R. Rodriguez*  
Blanca R. Rodriguez  
Environmental Administrator  
Potable Water Section

EJH:trl  
cc: Columbia County Health Department



## APPLICATION TRACKING SYSTEM

01/31/94

APPL NO:243179

APPL RECVD:01/03/94 TYPE CODE:WC SUBCODE:TO LAST UPDATE:01/31/94  
DER OFFICE RECVD:JAX DER OFFICE TRANSFER TO: APPLICATION COMPLETE:01/14/94

DER PROCESSOR:OWEN, JERRY

APPL STATUS:IS DATE:01/14/94 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)

RELIEF: (SSAC/EXEMPTIONS/VARIANCE)

(Y/N) N MANUAL TRACKING

DISTRICT:31 COUNTY:12

(Y/N) N OGC HEARING REQUESTED

LAT/LONG:30.06.36/82.37.36

(Y/N) N PUBLIC NOTICE REQD?

BASIN-SEGMENT:.

(Y/N) N GOV BODY LOCAL APPROVAL REQD?

COE #:

(Y/N) Y LETTER OF INTENT REQD? (I/ISSUE D/DENY)

ALT#:-

PROJECT SOURCE NAME:242 VILLAGE

STREET:HWY 242

CITY:LAKE CITY

STATE:FL

ZIP: - - - -

PHONE: - - - -

APPLICATION NAME:CONSOLIDATED WATER WORKS

STREET:P. O. BOX 191

CITY:LAKE CITY

STATE:FL

ZIP:32056

PHONE:904-752-6729

AGENT NAME:

STREET:

CITY:

STATE:

ZIP: - - - -

PHONE: - - - -

FEE #1 DATE PAID:01/03/94

AMOUNT PAID:00050

RECEIPT NUMBER:00223236

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE - - - - - / / /  
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - / / / -- / / /  
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. -- / / /  
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / -- / / /  
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / -- / / /  
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / -- / / /  
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / -- / / /  
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / -- / / /  
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - / / / -- / / /  
F DATE LAST 45 DAY LETTER WAS SENT - - - - - / / /  
G DATE FIELD REPORT WAS REQ--REC - - - - - / / / -- / / /  
H DATE DNR REVIEW WAS COMPLETED - - - - - / / /  
  
I DATE APPLICATION WAS COMPLETE - - - - - 01/14/94  
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - - - - / / /  
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - - / / / -- / / /  
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - / / /  
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - - - - / / /  
N WAIVER DATE BEGIN--END (DAY 90) - - - - - / / / -- / / /

COMMENTS:\*\*\*TRANSFER OF OWNERSHIP OF WC12-147558.

#2894





Florida Department of Environmental Regulation

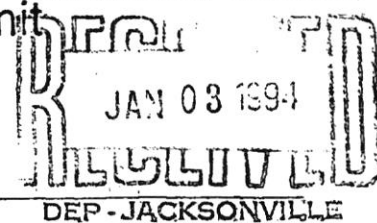
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Protection

DER Form #	17-555.910(8)
Form Fee	Ap. for Transfer of D. Water System Perm.
Effective Date	11/1/88
DER Application No.	(Filed in by DER)

Application for  
Transfer of Drinking Water System Permit

NORTHWEST DISTRICT

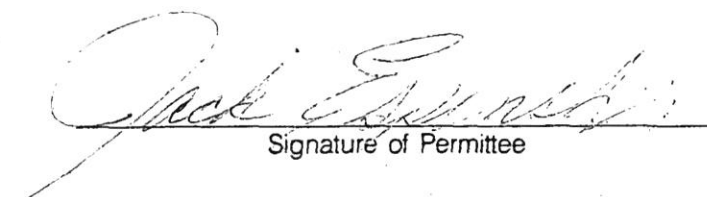


Permit No. WC 12-147558 Date Issued 4-19-88 Date Expires

Notification of Sale or Legal Transfer

System Name: 242 Village County: Columbia  
System Location: Hwy 242 City: Lake City  
Permittee Name: Jack Espenship Title: President  
Consolidated Water Works  
Mailing Address: PO Box 191  
Lake City, FL 32056

I, the undersigned, hereby notify the department of the sale or legal transfer of this water system. I further agree to assign my rights as permittee to the applicant in the event the department agrees to the transfer of the permit.

  
Signature of Permittee  
President  
Title

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

223236

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from 242 Village Date 01/3/94  
Address P.O. Box 191, Lake City, FL 32056-0191 Dollars \$ 50.00  
Applicant Name & Address Consolidated Water Works - Jack Espenship - President -  
same address  
Source of Revenue 242 Village  
Revenue Code 002230 CK # 166 Application Number WC12-243179  
By Deirdre P. Hollis



Form #	17-555.910(8)
Title	Ap. for Transfer of D. Water System Perm.
Effective Date	11/1/88
DER Application No.	(Filed in by DER)

## Request for Transfer of Permit

System Name: 242 Village

Applicant Name: Consolidated Water Works Title: \_\_\_\_\_

Mailing Address: PO Box 191 Telephone: ( 904 ) 752-6729  
Lake City, Fl. 32056

Project Engineer:

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone: ( \_\_\_\_\_ ) \_\_\_\_\_

I, the undersigned, hereby notify the department that I have acquired title to this water system. I further state that I have examined the application and documents submitted by the current permittee, the basis on which Permit Number WC 12-147558 was issued by the department, and state that they accurately and completely describe the permitted water system. I further state that I am familiar with the permit, agree to comply with its terms and conditions, and agree to assume the rights and liabilities contained therein. I also agree to promptly notify the department of any future change in ownership of, or responsibility for, the permitted water system.

  
Signature of Applicant\*

President

Title

\*Attach letter of authorization if other than owner or corporate officer.



DER 1993      PERMITTING AND CONSTRUCTION      17-555  
OF PUBLIC WATER SYSTEMS

CHAPTER 17-555  
PERMITTING AND CONSTRUCTION OF PUBLIC WATER SYSTEMS

PART I  
PURPOSE AND INTENT

- 17-555.101 Authority, Intent, and Policy.  
17-555.102 Scope.  
17-555.103 Effective Date.

PART II  
DEFINITIONS

- 17-555.200 Definitions.

PART III  
CONSTRUCTION, OPERATION, AND MAINTENANCE

- 17-555.300 General.  
17-555.310 Source, Plant Site, and Location.  
17-555.312 Location of Public Drinking Water Wells.  
17-555.314 Location of Potable Water Mains.  
17-555.315 Drinking Water Supply Wells or Test Wells That  
May Later Be Used for Drinking Water Supply.  
- Number, Construction, Clearing, Drilling  
Samples, and Abandonment.  
17-555.320 Treatment Plants, Storage, and Distribution  
Facilities.  
17-555.322 Prohibition on Use of Lead Pipes, Solder, and  
Flux.  
17-555.325 Fluoridation.  
17-555.330 Engineering References for Public Water  
Systems.  
17-555.335 Guidance Documents for Public Water Systems.  
17-555.340 Cleaning and Disinfection.  
17-555.345 Certification Letter and Clearance for Public  
Water Systems.  
17-555.350 Operation and Maintenance of Equipment.  
17-555.355 Water Samples for Laboratory Test.  
17-555.360 Cross Connection Control for Public Water  
Systems.

PART IV  
PUBLIC WATER SYSTEM  
GENERAL PERMITS

- 17-555.400 General.  
17-555.410 General Conditions for All General Drinking  
Water Permits.

DER 1993      PERMITTING AND CONSTRUCTION      17-555  
OF PUBLIC WATER SYSTEMS

PART V  
PUBLIC WATER SYSTEM  
CONSTRUCTION PERMIT

- 17-555.500 General.  
17-555.510 Public Water Supply Well Construction Permit.  
17-555.520 Drinking Water System Construction Permit  
Application.  
17-555.530 Standards for Issuance or Denial of a Permit.  
17-555.531 Approved County Health Units. (Repealed  
1-18-89.)  
17-555.540 General Permit for the Construction of an  
Extension to a Public Water Supply  
Distribution System.

- PART VI  
17-555.600 Scope of Additional Requirements for Surface  
Water Systems.  
17-555.610 Surface Water Treatment Requirements.  
17-555.620 Surface Water Filtration.  
17-555.630 Surface Water Disinfection.

PART VII  
(Reserved)

PART VIII  
(Reserved)

PART IX  
FORMS AND INSTRUCTIONS

- 17-555.900 Availability of Forms for Drinking Water  
Program.  
17-555.910 Forms and Instructions.



PART I  
PURPOSE AND INTENT

17-555.101 Authority, Intent, and Policy. To assure that public water systems supply drinking water which meets minimum requirements, the Federal government enacted PL 93-523, the "Safe Drinking Water Act." The scheme of PL 93-523 was to give primary responsibility for public water system programs to states to implement a public water system program. Also, the legislature of the State of Florida has enacted the "Florida Safe Drinking Water Act," Sections 403.850-403.864, F.S. These rules are promulgated to implement the requirements of the Florida Safe Drinking Water Act and to acquire primacy for the State of Florida under the Federal Act. These rules adopt the national primary and secondary drinking water regulations of the federal government where possible and otherwise create additional rules to fulfill state and federal requirements.

Specific Authority: 403.861(1), F.S.

Law Implemented: 403.851, F.S.

History: New 1-18-89.

## 17-555.102 Scope.

(1) The Safe Drinking Water Act and the Florida Safe Drinking Water Act exclude certain public water systems from coverage. The drinking water rules in this Chapter apply to all public water systems except those which meet all of the following criteria:

- (a) Consist of distribution and storage facilities only and do not have any collection or treatment facilities;
- (b) Obtain all water from, but are not owned or operated by, a public water system to which such rules apply;
- (c) Do not sell water to any person; and
- (d) Are not carriers which convey passengers in interstate commerce.

(2) The scope of this Chapter is the permitting requirements for public water systems including the location and construction of wells serving the system and the treatment plant. Construction of public water systems require permits and the use of lead free pipes, plumbing fixtures, solder and flux. General permits for public water systems are included. Engineering references are listed.

Specific Authority: 403.861(8), F.S.

Law Implemented: 403.851, 403.853(2), F.S.

History: New 1-18-89.

17-555.101 - 17-555.102(History)

NOTE: Section 381.261, F.S. gives general supervision and control over all private water systems and public water systems not covered or included in the Florida Safe Drinking Water Act to the Department of Health and Rehabilitative Services (HRS). The Department interprets this as meaning that HRS has supervision and control of all water systems which meet all of the four exception criteria and which also have at least 15 service connections or which regularly serve at least 25 individuals daily at least 60 days out of the year. The Department also interprets Section 381.261, F.S., as meaning that HRS has supervision and control of all water systems that have less than 15 service connections or which regularly serve less than 25 individuals daily at least 60 days out of the year, or at least 25 individuals daily less than 60 days out of the year.

17-555.103 Effective Date. The effective date for the amendments approved by the Environmental Regulation Commission on July 27, 1992, shall be January 1, 1993.

Specific Authority: 403.861(9), F.S.

Law Implemented: 120.54(13)(a), 403.861(9), F.S.

History: New 1-1-93.

PART II  
DEFINITIONS

17-555.200 Definitions. For the purpose of this Chapter, the words, phrases, or terms found in this Chapter shall have the same meaning as those defined in Chapter 17-550, F.A.C.

Specific Authority: 403.861(8), F.S.

Law Implemented: 403.853, 403.862, F.S.

History: New 1-18-89.

PART III  
CONSTRUCTION, OPERATION, AND MAINTENANCE

17-555.300 General. The quality of drinking water when it ultimately reaches the consumer depends on the construction, operation, and maintenance of a public water system. The following rules establish requirements for construction, operation, and maintenance of a public water system and cover all aspects of a public water system from collection through treatment, storage, and distribution.

Specific Authority: 403.861(8), (9), F.S.

Law Implemented: 403.852(12), F.S.

History: New 11-19-87; Formerly 17-22.600; Amended 1-18-89.

17-555.102(Note) - 17-555.300(History)



**17-555.310 Source, Plant Site, and Location.** Raw water shall be obtained from the most desirable source that is available, and an effort shall be made to prevent or control contamination of the source. The plant site area shall not be subject to a significant risk from earthquakes, floods, fires, or other disasters which could cause a breakdown of the public water system or any portion thereof.

**Specific Authority:** 403.861(8), (9), F.S.

**Law Implemented:** 381.272(6), 403.852(12), (13), 403.853(1), (2), (3), (4), (5), F.S.

**History:** New 11-19-87; Formerly 17-22.610; Amended 1-18-89.

**17-555.312 Location of Public Drinking Water Wells.** The following setback distances around public drinking water supply wells apply to newly constructed wells. However, the 100 and 200 foot setback distances which have been in effect since November 9, 1977 and December 13, 1983, respectively remain in effect.

(1) Public drinking water supply wells that serve water systems having total sewage flows greater than 2,000 gallons per day shall be placed no closer than 200 feet from on-site sewage disposal systems (septic tanks) other than land application of reclaimed water areas. Public drinking water supply wells serving water systems having total sewage flows of less than or equal to 2,000 gallons per day shall be placed no closer than 100 feet from on-site sewage disposal systems (septic tanks) other than land application of reclaimed water areas.

(2) Public drinking water supply wells shall not be placed within setback distances established by Chapter 17-610, F.A.C.

(3) Public drinking water supply wells shall not be constructed within 300 feet of storage and treatment facilities (high intensity areas) of dairy farms.

(4) Public drinking water supply wells shall be located no closer than 100 feet from other sanitary hazards as defined in Rule 17-550.200, F.A.C.

(5) Public drinking water supply wells shall be located on ground least subject to localized flooding, and as far as is practical when the direction of ground water slope or movement is known, wells shall be located on the upstream side of sanitary hazards.

(6) The Department or appropriate water management district shall decrease or increase these distances when approving well construction permits, if justified, by the presence or absence of natural barriers such as impermeable

17-555.310 - 17-555.312(6)

geological strata, adequate protection by treatment, or proper construction practices.

**Specific Authority:** 403.061, 403.861(8), (9), F.S.

**Law Implemented:** 381.272(6), 403.062, 403.852(12), F.S.

**History:** Formerly 17-22.615; Amended 1-18-89, 5-7-90.

**17-555.314 Location of Potable Water Mains.**

(1) Water mains shall be laid at least ten feet horizontally from any existing or proposed sewer. Separation distance shall be measured outside edge to outside edge and shall not include any chord, radius, or diameter of the pipe. In determining these distances, the provisions of paragraph 8.6.2., "Recommended Standards for Water Works," incorporated by reference in Rule 17-555.330(3), F.A.C., shall be considered.

(2) Water mains shall be laid at least five feet (measured center to center) or three feet (outside to outside) from any reclaimed water line as required by Rule 17-610.470(3), F.A.C.

(3) The provisions of Rule 17-604.400(2)(g), F.A.C., shall govern the design permitting criteria for water mains that cross sanitary or storm sewers, or reclaimed water mains.

(4) Where it is not practical to maintain the required separations, the Department shall allow lesser clearances if an engineering analysis is provided by the design engineer following the provisions of paragraph 8.6.1., "Recommended Standards for Water Works," incorporated by reference in Rule 17-555.330(3), F.A.C.

**Specific Authority:** 403.861(9), F.S.

**Law Implemented:** 403.861(9), F.S.

**History:** New 1-1-93.

**17-555.315 Drinking Water Supply Wells or Test Wells That May Later be Used for Drinking Water Supply - Number, Construction, Clearing, Drilling Samples, and Abandonment.** In addition to the rules set forth in Chapter 17-532, F.A.C., the requirements of this section apply to drinking water supply wells or test wells that may later be used for drinking water supply. The exception provision of Rule 17-532.500(2)(d), F.A.C., regarding grout is applicable.

(1) Number of wells required - A minimum of two drinking water supply wells shall be provided for all community water systems that will serve 350 or more persons or have more than 150 connections.

(2) Well construction.

(a) Access - Every well shall be accessible for such attention as may be necessary.

17-555.312(6) (cont'd.) - 17-555.315(2) (a)



## (b) Casing Materials and Grouting Requirements.

1. Casing and pipe other than as specified in Rule 17-532.500(1), F.A.C., must be approved by the Department before installation and use.

2. Where telescoped casing is used, the casings shall be overlapped by not less than twenty feet where increases or reductions occur in casing size. Not less than two centralizing spacers shall be used in the overlapped sections, and the annular space in the overlapped sections shall be completely sealed with cement grout. A liner as defined in Chapter 17-532, F.A.C., shall not overlap or telescope into the well casing and, therefore, a cement grout seal is not required for liner installation.

3. Casing for wells which obtain their water from a rock layer or other such consolidated formation shall, as a minimum, be seated firmly into it and sealed with cement grout by an approved method.

4. For well construction with driven casing, the minimum acceptable seal shall be accomplished by undercutting or under reaming the last five feet of the hole before seating the casing. A minimum of one foot of such enlarged hole must be into the consolidated formation in which the casing will be seated. The entire enlarged portion shall be filled with cement grout and then the casing driven through the grout to refusal. The upper twenty feet of casing shall be sealed with not less than a two-inch nominal thickness of cement grout. No other minimum seal shall be acceptable unless approved in advance by the water management district or the Department. Any part of a well which is constructed by setting the casing in a previously constructed borehole which is of larger diameter than the outside diameter of the casing shall be sealed by filling the annular space from bottom to top with cement grout. Grouting methods and minimum standards shall at all times conform to those stated in Chapter 17-532, F.A.C. A minimum set time of twelve hours is required.

5. The top of the casing shall be constructed to exclude any intrusion of surface water. For level areas, well tamped or puddled earth shall be placed around the well to elevate the concrete platform or apron. The apron must be a minimum 4" thick and 6' by 6' around the well.

6. Before emplacing the pump(s) at the well(s), the well(s) shall be protected at all times by a sanitary seal, threaded caps, or a welded flange to prevent entrance of contaminating material.

(c) Pump Pits. Will be allowed if the finished grade of the site location is above the 100-year flood elevation

17-555.315(2)(b) - 17-555.315(2)(c)

and the site is not susceptible to contamination. All pump pits shall be equipped with a water tight sanitary seal. All pump pits shall be drained by gravity or by dual submersible pumps with adequate alarms.

(d) Housing of Well Pump. Both well and pump shall be protected by a housing of adequate size having an impervious floor and weatherproof walls and roof; however, completely weatherproof or submersible installations need only be protected from tampering and vandalism.

(e) Well Vent. Where provided, well vents shall be adequately protected.

(f) Sampling Tap. A conveniently accessible, down-opening, smooth nosed, sampling tap, located a minimum distance of 12 inches above the ground surface, shall be provided on the discharge side of each well pump on the upstream side of the check valve before the chlorine injection point so that samples of raw water may be obtained from the well.

(g) Dynamiting of Wells. The use of dynamite or other explosives in the construction or maintenance of wells is prohibited.

(h) Infiltration Galleries, etc. Dug wells, infiltration galleries and other such sources of water supply requiring rearrangements of natural features are prohibited as a source of public water supply unless water is filtered and disinfected.

(3) Cleaning. Water supply wells are to be cleaned of any microbiological or other contaminant from well drilling activities so that the true microbiological character of the well water can be determined.

(a) Every well shall be equipped with an opening in the casing which will allow introduction of disinfection agents and the measurement of static water level, drawdown, or artesian pressure.

(b) Before a new well, or one suspected of being contaminated, or one which has been repaired is placed in use, it shall be pumped clean with the permanent pump and it shall be disinfected in accordance with an applicable method of "American Water Works Association Standards" or a comparable method approved by the Department.

(c) Following disinfection, a bacteriological survey shall be conducted as set forth below. The samples of raw water from the well shall be submitted to the Department of Health and Rehabilitative Services or a laboratory certified by the Department of Health and Rehabilitative Services for bacteriological analysis. The well shall not be used until the bacteriological survey is done and satisfactory results of the analyses are received by the Department.

17-555.315(2)(c) (cont'd.) - 17-555.315(3)(c)



1. After thoroughly pumping the well until no trace of the disinfecting agent can be found, daily samples for 20 or more consecutive workdays shall be collected after pumping the well for 20 to 30 minutes at the rated capacity of the permanent pump each consecutive day. The daily samples shall be handled in accordance with acceptable methods as stated in "Standard Methods for the Examination of Water and Wastewater, 17th Edition," 1989. Upon a showing by the supplier of water that circumstances warrant it, the Department shall allow the required number of samples or collection interval to be modified. No more than two samples, at least 6 hours apart, shall be collected per day.

2. Interpretation of laboratory results from the bacteriological survey shall take into consideration details of the well construction, the presence or absence of surface protection, the age of the well relative to the possible condition of the casing, the well log, or other pertinent information or conditions. However, where chlorination is the only treatment proposed, samples with coliform densities greater than four per 100 milliliter shall not exceed 10 percent of the total number of samples analyzed.

(4) Drilling Samples. A log completion report showing various strata pierced by the well and a detailed drawing of the well construction shall be forwarded by the well contractor to the appropriate Department district office or the appropriate water management district within thirty days after the completion of the drilling operation. In addition, cutting samples taken at 25 foot intervals and other information that may be required by the Department or the water management district shall be submitted by the well contractor to the water management district. Samples shall show material in which the casing is seated. Blank well completion report forms and information on availability of sample bags may be obtained from the appropriate water management district.

(5) Abandonment. All abandoned wells shall be plugged by filling them from bottom to top with neat cement grout, unless otherwise approved in writing by the Department. The plugging shall be to restore or improve the hydrologic conditions which existed before the well was constructed. Capping the casing top is prohibited. Request for approval for abandoning a well(s) may be done by letter to the Department. The letter requesting approval shall, at a minimum, contain the following information:

- (a) Location and size of well,
- (b) Length of casing of well,
- (c) Total depth of well,

17-555.315(3)(c)1. - 17-555.315(5)(c)

(d) Water level in well, and

(e) Methods and materials used for plugging the well.

Specific Authority: 373.337, 403.861(9), (10), F.S.

Law Implemented: 373.336, 403.861(9), F.S.

History: New 11-19-87; Formerly 17-22.615; Amended 1-18-89, 5-7-90, 1-1-93.

17-555.320 Treatment Plants, Storage, and Distribution Facilities. Water treatment facilities shall be designed, constructed, operated, and located to provide adequate drinking water of a quality that will meet all applicable standards in Chapters 17-550, 17-551, 17-560, F.A.C., and this Chapter. Water treatment and distribution facilities design, construction, and operation shall comply with the following criteria:

(1) Modifications to treatment techniques - Before a community water system makes any significant modifications to its treatment process to achieve compliance with trihalomethane maximum contaminant levels, the system shall submit and obtain Department approval of a detailed plan setting forth its proposed modification and the safeguards it will implement to ensure that the bacteriological quality of its drinking water shall not be adversely affected by such modification. The proposed plan shall contain:

(a) An evaluation of the water system for sanitary defects and the source water for bacteriological quality.

(b) An evaluation of its treatment practices and the proposed improvements that will minimize disinfectant demand and optimize finished water quality throughout the distribution system.

(c) Analyses of heterotrophic plate counts, as appropriate, before the modification.

(d) Assurance that an active disinfectant residual will be present throughout the distribution system during the modification.

(2) Following the modification to treatment techniques as outlined in (1) above, the water system shall provide the Department with the following information:

(a) Baseline water quality survey data of the distribution system including the results from monitoring for coliform bacteria and performing heterotrophic printer table normal plate counts at 35° C and 20° C.

(b) Results of additional monitoring conducted to assure continued maintenance of optimal bacteriological quality of finished water, for example, when chloramines are introduced as disinfectants or when pre-chlorination is being discontinued. Additional monitoring is required by the

17-555.315(5)(d) - 17-555.320(2)(b)



Department for chlorate, chlorite, and chlorine dioxide if chlorine dioxide is used as a disinfectant.

(c) Heterotrophic plate count analyses are required by the Department, as appropriate, after any modification.

(c) Standard plate count analyses are required by the Department, as appropriate, after any modification.

(d) A demonstration of an active disinfectant residual is present throughout the distribution system at all times after the modification.

(3) Coatings, treatment chemicals, additives, and components.

(a) Coatings and the chemicals that are contained in coatings which are applied after January 1, 1993, to a surface in contact with drinking water, or are otherwise on equipment surfaces that come into contact with the water shall be certified as being in conformance with American National Standards Institute (ANSI) and NSF International (previously known as the National Sanitation Foundation) Standard 60-1988 by an entity certified by ANSI.

(b) Additives and chemicals, except as provided in (c) below, used to treat water shall be certified as being in conformance with ANSI/NSF Standard 60-1988 by an entity certified by ANSI.

(c) Chemicals approved for use in fluoridation treatment under Rule 17-555.325(1), F.A.C., including sodium fluoride, sodium fluorosilicate (silicofluoride), or fluorosilicic (hydrofluorosilicic) acid shall be certified as being in conformance with ANSI/AWWA Standards B701-89, B702-89, or B703-89, respectively.

(d) Water system components installed after January 1, 1994, which come into contact with drinking water shall be certified as being in conformance with ANSI/NSF Standard 61-1991, Drinking Water System Components, by an entity certified by ANSI. Component surfaces that come into contact with raw water prior to its treatment by reverse osmosis are exempt from this requirement.

(4) Disinfection.

(a) All public water systems shall continually have effective disinfection measures employed on the water which the system distributes. The necessary apparatus shall be designed, according to acceptable engineering practices, to maintain a free chlorine residual or its equivalent throughout the distribution system in accordance with Rule 17-550.518(4), F.A.C.

(b) To use a well with raw water quality that does not meet the requirements of Rule 17-555.315(3)(c), F.A.C., ground water systems that use free chlorine as a disinfectant shall provide a minimum of 15 minutes of

17-555.320(2)(b) (cont'd.) - 17-555.320(4)(b)

disinfectant contact time prior to distribution at peak flow rates. When other disinfectants are used, the contact time shall provide for 99.99 percent (4 log) removal or inactivation of viruses and be equal to that calculated from the tables for the inactivation of viruses in Appendix E of the reference incorporated as Rule 17-555.335(1), F.A.C.

(c) Ground water systems that do not meet the raw water quality requirements of Rule 17-555.315(3)(c), F.A.C., shall comply with the disinfectant residual monitoring requirements of Rule 17-550.560(3)(c), F.A.C.

(5) Chlorination Facilities.

(a) Gas chlorination.

1. A single gas chlorinator may be provided on systems with an equivalent gas chlorine demand of less than ten pounds per 24 hours. Additional gas chlorination facilities, including but not limited to, a standby chlorinator and booster pump for every five chlorinators, repair parts for chlorinators, and automatic cylinder switchover devices shall be provided on all water supply systems with an equivalent gas chlorine demand equal to or exceeding ten pounds per 24 hours. The chlorinator shall operate when the pump or metering device operates.

2. All chlorine gas feed facilities shall be installed in a separate above-grade room provided with floor level ventilation along with adequate weighing devices and safety equipment. Those constructed or modified after January 1, 1993, shall conform to the provisions of Section 5.4.1, "Recommended Standards for Water Works," incorporated by reference in Rule 17-555.330(3), F.A.C.

3. All chlorine gas storage facilities shall conform to the provisions of "Water Treatment Plant Design," pages 385 and 386 incorporated by reference as Rule 17-555.330(2), F.A.C.

4. All systems that use gas chlorination are required to have an alarm system installed which will sound to indicate loss of chlorine capability or chlorine residual. The alarm shall sound outside the chlorine room or in the office or laboratory of the plant. Where there is not supervision 24 hours per day, seven days per week, the alarm shall be connected to a central location (such as fire department alarm room, a police dispatcher, or a utility emergency desk) or shall trigger an automatic dialing or paging device to enable notification of certified operator personnel.

5. All systems that use gas chlorination which are constructed or modified after January 1, 1993, shall have an alarm that uses high and low vacuum switches or an automatic chlorine residual analyzer/recorder with a high and low

17-555.320(4)(b) (cont'd.) - 17-555.320(5)(a)5.



chlorine residual alarm. To ensure that only valid conditions sound the alarm, a device, such as a time delay relay, shall be installed to filter out or suppress short duration high or low peaks of vacuum pressure or chlorine residual. The alarm shall sound when any of the following conditions exists:

- a. empty chlorine cylinder,
- b. chlorine booster pump not operating,
- c. broken chlorine solution feed line,
- d. clogged chlorine solution feed line,
- e. chlorine regulator failure,
- f. clogged chlorine ejector,
- g. chlorine gas leak.

6. Exceptions to the requirement for dual gas chlorination facilities, required by subparagraph 1. above, shall be granted by the Department if the following conditions are met:

a. There is supervision by a certified operator on a 24 hour, seven day per week basis.

b. Sufficient spare parts for the chlorinator are available to allow expeditious repair in case of failure.

(b) Hypochlorination - Hypochlorination facilities may be installed on public water systems with equivalent gas chlorine demands of less than 10 pounds per day and, when used on multiple supplies, they shall be installed on each source. Average daily system demand shall be used to determine if the amount of chlorine needed is equal to or exceeds 10 lbs/day requiring the use of gas chlorination. Maximum hourly system demand shall be used to determine the chlorinator capacity, whether gas or hypochlorite.

(c) The supplier of water may request approval to use hypochlorination facilities even though the equivalent gas chlorine demand exceeds ten pounds per day. The Department shall approve such a request in writing if the supplier makes an affirmative showing supported by an engineering study certified by a professional engineer registered in the State of Florida that the hypochlorination facility would be safer than a gas chlorination system, that it would be as reliable as a gas chlorination system, and that a chlorine residual can be maintained continuously throughout the system.

(6) Auxiliary power.

(a) Community systems that serve 350 or more persons, or have 150 or more service connections, shall provide auxiliary power for operation of the source, treatment units and pumps at a rate equal to one-half maximum daily flow.

17-555.320(5)(a)5.(cont'd.) - 17-555.320(6)(a)

(b) The auxiliary power requirements may be met by providing:

1. a connection to at least two independent power lines, or

2. an interconnection to at least one other public water supply system that has sufficient reserve capacity, or

3. in-place auxiliary power which, together with storage capacity, meets the requirements of paragraph (a). In-place auxiliary power sources shall be equipped with an automatic start up device. Portable power without an automatic start-up device may be provided where 24 hour, 7 days per week supervision is provided.

(c) The auxiliary power source shall be operated at least once per month continuously for a minimum of four hours under load to ensure dependability.

(d) For demineralization type systems such as reverse osmosis or electrodialysis, source, distribution, pumping and disinfection capability requirements only apply.

(e) Each community water system shall maintain a written auxiliary power plan that details how it meets the requirements of this subsection. This plan shall be available for review by the Department during the time of a routine sanitary survey.

(7) High Service Pumps - High service pumping and distribution facilities shall be designed to provide maximum hourly system demand without either development of a distribution pressure lower than 20 psi or other health hazards. Elevated storage with appropriate hydraulic characteristics may be combined with service pumping units or distribution components to meet system demand.

(8) Meters - All community water systems shall be equipped with a metering device that accurately indicates pumpage of finished water. Non-community and non-transient non-community systems shall be equipped with at least an elapsed time clock or other device in conjunction with field calibration of the pump that will permit determination of flow.

(9) Piping - All pump intake lines located outside of the water treatment plant building shall be located above grade or otherwise be protected from infiltration. The system shall demonstrate that the below grade lines have a positive head greater than the pump inlets at their volutes under all operating conditions.

(10) Distribution Mains. All water mains shall be designed and constructed pursuant to the provisions of "Recommended Standards for Water Works," Part 8, incorporated by reference in Rule 17-555.330(3), F.A.C. The Department shall approve alternate materials and

17-555.320(6)(b) - 17-555.320(10)



construction standards, if requested by the supplier of water based upon a showing, certified by a professional engineer registered in the State of Florida, that such alternatives provide sufficient strength, durability and public health protection.

**Specific Authority:** 403.861(9), F.S.

**Law Implemented:** 403.0877, 403.861(9), F.S.

**History:** New 11-19-87; Formerly 17-22.620; Amended 1-18-89, 5-7-90, 1-1-93.

#### 17-555.322 Prohibition on Use of Lead Pipes, Solder, and Flux.

(1) As of the effective date of this rule, the installation or repair of any public water system, or any plumbing in a residential or nonresidential facility providing water for human consumption which is connected to a public water system shall be lead free. This section shall not apply to leaded joints necessary for the repair of cast iron pipes.

(2) Definition of lead free - For purposes of this section, the term "lead free" shall mean:

(a) When used with respect to solders and flux refers to solders and flux containing not more than 0.2 percent lead, and

(b) When used with respect to pipes and pipe fittings refers to pipes and pipe fittings containing not more than 8.0 percent lead.

**Specific Authority:** 403.861(8), F.S.

**Law Implemented:** 553.06, F.S.

**History:** New 1-18-89.

#### 17-555.325 Fluoridation.

(1) Conditions - Before the installation and placing into service of fluoridation equipment, a public water system shall apply for and receive a permit or permit modification from the Department. Fluoride compounds as used herein may include NaF, Na<sub>2</sub>SiF<sub>6</sub> and H<sub>2</sub>SiF<sub>6</sub>.

(2) Fluoride levels in drinking water shall not exceed the maximum contaminant levels in Rules 17-550.310 and .320, F.A.C. The optimum fluoride level should be maintained at approximately 0.8 milligrams per liter.

(3) Equipment and Installation.

(a) Fluoridation equipment for use with hydrofluorosilic acid shall be housed in an adequately vented space with high-level ventilation.

(b) A means to determine daily fluoride chemical dosage shall be provided. When weighing scales are used to

17-555.320(10) (cont'd.) - 17-555.325(3) (b)

determine the amount of chemical fed, the scales shall be installed flush with the loading platform at floor level to avoid unnecessary lifting of large containers.

(c) Chemicals in powdered or granular form used for fluoridation shall be kept in color-coded containers to distinguish from other water treatment chemicals.

(d) Analytical equipment is required to accurately determine the fluoride ion concentration in the treated water. Analysis of the treated water for fluoride content shall be performed daily and reported to the HRS State Dental Health Office monthly along with the daily fluoride dosage and the daily quantity of chemical fed.

(4) Quality Assurance.

(a) At monthly intervals, each plant practicing fluoridation shall collect a raw, an effluent, and four distribution system samples. The samples shall be "split" and sent to a laboratory of the Department of Health and Rehabilitative Services or another certified laboratory for analysis. The results of analysis by the plant and the other laboratory shall be submitted to the HRS State Dental Health Office.

(b) If the Department finds that fluoridation is not being carried out in compliance with these rules, it may order corrective action.

(c) The HRS State Dental Health Office is authorized to conduct annual or more frequent inspections of fluoridation facilities at public water systems.  
**Specific Authority:** 403.853(3), 403.861(6), (8), 403.862(1), F.S.

**Law Implemented:** 403.852(12), (13), 403.853(3), (5), F.S.

**History:** New 11-19-87; Formerly 17-22.625; Amended 1-18-89, 1-3-91.

#### 17-555.330 Engineering References for Public Water Systems.

In addition to the requirements of this chapter, the standards and criteria contained in the following standard water works manuals and technical publications are hereby incorporated by reference and shall be applied in determining whether applications to construct or alter a public water system shall be issued or denied. They do not supersede the specific requirements detailed in these rules. Copies of these technical volumes may be obtained by writing the appropriate publisher at the address indicated.

(1) "Water Quality and Treatment: a Handbook of Community Water Supplies," American Water Works Association, 4th Edition, 1990, McGraw-Hill Publishing Company, 1221 Avenue of the Americas, New York, New York 10020.

17-555.325(3) (b) (cont'd.) - 17-555.330(1)



(2) "Water Treatment Plant Design," 2nd Edition, 1990, American Society of Civil Engineers and American Water Works Association, Published by McGraw-Hill Publishing Company, 1221 Avenue of the Americas, New York, New York 10020.

(3) "Recommended Standards for Water Works," 1987 Edition, A Report of the Committee of the Great Lakes - Upper Mississippi River Board of State Public Health and Environmental Managers, Published by Health Research Inc., Health Education Service Division, P.O. Box 7126, Albany, N.Y. 12224.

(4) "Standards of the American Water Works Association," in effect on June 1, 1992, American Water Works Association, 6666 W. Quincy Avenue, Denver, Colorado 80235.

(5) "Water Fluoridation - A Manual for Engineers and Technicians," Thomas G. Reeves, P.E., National Fluoridation Engineer, Published by the U.S. Department of Health and Human Services, Public Health Service Centers for Disease Control, Dental Disease Prevention Services, Atlanta, Georgia 30333, September 1986.

(6) "Recommended Practice for Backflow Prevention and Cross-Connection Control (M14)," American Water Works Association, 1990, American Water Works Association, 6666 W. Quincy Avenue, Denver, Colorado 80235.

(7) "Cross Connections and Backflow Prevention," 2nd Edition, American Water Works Association, 1974, American Water Works Association, 6666 W. Quincy Avenue, Denver, Colorado 80235.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.861(9), F.S.

History: New 11-19-87; Formerly 17-22.630; Amended 1-18-89, 1-3-91, 1-1-93.

#### 17-555.335 Guidance Documents for Public Water Systems.

The following publications are adopted as technical guidance to assist suppliers of water in achieving compliance with Chapters 17-550, 17-551, 17-555 and 17-560, F.A.C. Specific portions of a publication which contain enforceable criteria may be referenced in these rules. Information in the publications does not supersede the specific requirements detailed in these rules. Copies of the publications may be obtained from the source indicated:

(1) "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources," October 1990 Edition, Environmental Protection Agency, Science and Technology Branch, Criteria and Standards Division, Office of Drinking Water,

17-555.330(2) - 17-555.335(1)

Washington, D.C., Source: U.S. Department of Commerce, National Technical Information Service, Springfield, VA 22161.

(2) "The Lead and Copper Guidance Manual, Volume 1: Monitoring," September 1991 Edition, Environmental Protection Agency, Science and Technology Branch, Criteria and Standards Division, Office of Drinking Water, Washington, D.C., Source: U.S. Department of Commerce, National Technical Information Service, Springfield, VA 22161.

(3) "Lead and Copper Rule Guidance Manual, Volume II: Corrosion Control Treatment," March 1992 Edition, Environmental Protection Agency, Science and Technology Branch, Criteria and Standards Division, Office of Drinking Water, Washington, D.C., Source: U.S. Department of Commerce, National Technical Information Service, Springfield, VA 22161.

(4) "Treatment Techniques for Controlling Trihalomethanes in Drinking Water," 1982, American Water Works Association, 6666 W. Quincy Avenue, Denver, Colorado 80235.

(5) "Disinfection By-Products: Current Perspectives," 1989, American Water Works Association, 6666 W. Quincy Avenue, Denver, Colorado 80235.

(6) "Distribution System Maintenance Techniques," 1987, American Water Works Association, 6666 W. Quincy Avenue, Denver, Colorado 80235.

(7) "Standard Methods for the Examination of Water and Wastewater, 17th Edition," 1989, American Water Works Association, 6666 W. Quincy Avenue, Denver, Colorado 80235.

(8) "Activated Carbon for Water Treatment," 2nd Edition, 1988, American Water Works Association, 6666 W. Quincy Avenue, Denver, Colorado 80235.

(9) "Manual of Small Public Water Supply Systems," May 1991, U.S. Environmental Protection Agency, Publication number EPA 570/9-91-003, Office of Water, Washington, D.C. 20020.

(10) "Air Stripping for Volatile Organic Contaminant Removal," 1989, American Water Works Association, 6666 W. Quincy Avenue, Denver, Colorado 80235.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.861(9), F.S.

History: New 1-3-91, Amended 1-1-93.

17-555.340 Cleaning and Disinfection. No supplier of water shall put into service or resume the use of any plant, pumping station, main standpipe, reservoir, tank, or other pipe or structure through which water is delivered to

17-555.335(1) (cont'd.) - 17-555.340



consumers for drinking and household purposes unless the plant, pumping station, main standpipe, reservoir, tank, or other pipe or structure has been effectively disinfected and approved for operation by the Department. This prohibition may not necessarily apply to mains, reservoirs, tanks, or other structures which contain water before it is treated.  
**Specific Authority:** 403.861(8), (9), F.S.  
**Law Implemented:** 403.852(12), (13), 403.853(1), (3), F.S.  
**History:** New 11-19-87; Formerly 17-22.640; Amended 1-18-89.

**17-555.345 Certification Letter and Clearance for Public Water Systems.** Upon completion of construction, the engineer of record or the system's professional engineer who was responsible for overseeing construction shall submit a certification of completion letter to the Department. When the letter of certification and a copy of satisfactory bacteriological results (absence of total coliform in two consecutive daily water samples) and analyses to demonstrate compliance with Chapter 17-550 and, if applicable, Chapter 17-524, F.A.C., are received, a letter of clearance to place the facility(ies) into service shall be issued.  
**Specific Authority:** 403.853(3), 403.861(9), F.S.  
**Law Implemented:** 403.0877, 403.853(1), (3), F.S.  
**History:** New 11-19-87; Formerly 17-22.645; Amended 1-18-89, 5-7-90, 1-1-91, 1-1-93.

**17-555.350 Operation and Maintenance of Equipment.**

(1) The supplier of water shall maintain all equipment in good operating condition and shall keep in operation all equipment designed for the purification of the water supply. The supplier shall maintain a minimum free chlorine residual of 0.2 mg/l or its equivalent throughout the distribution system at all times. The capacity of the treatment plant and distribution facilities including pumps and pipes shall be increased as system demand is increased to maintain a minimum pressure of 20 psi throughout the distribution system except in extenuating circumstances. The system shall be maintained and operated in accordance with the rules of the Department and the approved plans.

(2) The supplier of water shall provide responsible operation personnel in accordance with Chapters 17-602 and 17-699, F.A.C., and the permit.

(3) No new source of water shall be introduced into the system and no purification process or protection provision shall be altered or discontinued unless the operator secures written approval from the Department. In case of a breakdown in purification or protective works, a break in a

17-555.340(cont'd.) - 17-555.350(3)

main transmission line causing a major interruption in service, or any suspicious circumstance, abnormal taste, or abnormal odor occurring in connection with a public water supply, the person responsible for the operation of the works or the treatment plant operator shall notify the Department or the Approved County Public Health Unit, if applicable, by wire or telephone within 24 hours of the occurrence. The Department shall notify the appropriate local public health unit(s), or the Approved County Public Health Unit shall notify the Department.

(4) A maintenance log of all water plant equipment which directly affects the quality of treatment shall be maintained on-site by the plant's lead operator and shall be available at all times at all water treatment plants that treat water for a community water system. Log information shall include, as a minimum, all maintenance performed, date performed, and problems encountered with equipment.

**Specific Authority:** 403.861(9), F.S.

**Law Implemented:** 403.861(9), F.S.

**History:** New 11-19-87; Formerly 17-22.650; Amended 1-18-89, 1-1-93.

**17-555.355 Water Samples for Laboratory Test.** Suppliers of water are responsible for the collection and delivery of water samples to a Department of Health and Rehabilitative Services laboratory or other certified laboratory. Local county public health units may routinely collect and deliver water samples for analysis. However, the supplier of water remains responsible for collecting and delivering the required number of samples.

**Specific Authority:** 403.861(8), (9), F.S.

**Law Implemented:** 403.852(12), (13), 403.853(1), (3), F.S.

**History:** New 11-19-87; Formerly 17-22.655; Amended 1-18-89.

**17-555.360 Cross Connection Control for Public Water Systems.**

(1) Cross-connection, as defined in Rule 17-550.200, F.A.C., is prohibited. However, a person who owns or manages a public water system may interconnect to another public water system if that system is operated and maintained in accordance with this Chapter.

(2) Community water systems, and all public water systems which have service areas that are also served by reclaimed water systems as defined in Chapter 17-610, Part III, F.A.C., shall establish a routine cross-connection control program to detect and prevent cross-connections that create or may create an imminent and substantial danger to public health. This program shall include a written plan

17-555.350(3) (cont'd.) - 17-555.360(2)



that is developed using accepted practices of the American Water Works Association as set forth in the reference documents cited in Rules 17-555.330(6) and (7), F.A.C.

(3) Upon discovery of a prohibited cross-connection, public water systems shall either eliminate the cross-connection by installation of an appropriate backflow prevention device acceptable to the Department or shall discontinue service until the contaminant source is eliminated.

(4) Only the following are considered to be backflow prevention devices. They shall be installed in agreement with and under the supervision of the supplier of water or his designated representative (plumbing inspector, etc.) at the consumer's meter, at the property line of the consumer when a meter is not used, or at a location designated by the supplier of water or the Department. The devices are:

(a) Air gap separation - A physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel. An "approved airgap separation" shall be at least double the diameter of the supply pipe measured vertically above the top of the rim of the vessel. In no case shall it be less than 1 inch.

(b) Reduced pressure backflow preventer - A device containing within its structure a minimum of two independently acting approved check valves, together with an automatically operating pressure differential relief valve located between the two check valves. The first check valve reduces the supply pressure a predetermined amount so that during normal flow and at cessation of normal flow the pressure between the checks shall be less than the supply pressure. In case of leakage of either check valve, the differential relief valve, by discharging to the atmosphere, shall operate to maintain the pressure between the checks less than the supply pressure. The unit shall include tightly closing shutoff valves located at each end of the device, and each device shall be fitted with properly located test cocks.

(c) Atmospheric vacuum breaker - A backflow prevention device which is operated by atmospheric pressure in combination with the force of gravity. The unit is designed to work on a vertical plane only. The one moving part consists of a poppet valve which must be carefully sized to slide in a guided chamber and effectively shut off the reverse flow of water when a negative pressure exists.

(d) Pressure vacuum breaker - A pressure vacuum breaker is similar to an atmospheric vacuum breaker except that the checking unit "poppet valve" is activated by a spring. This

17-555.360(2) (cont'd.) - 17-555.360(4) (d)

type of vacuum breaker does not require a negative pressure to react and can be used on the pressure side of a valve.

(e) Double check valve assembly - An assembly composed of two single, independently acting, check valves, including tightly closing shutoff valves located at each end of the assembly and suitable connections for testing the water tightness of each check valve. A check valve is a valve that is drip-tight in the normal direction of flow when the inlet pressure is one psi and the outlet pressure is zero. The check valve shall permit no leakage in a direction reverse to the normal flow. The closure element (e.g., clapper) shall be internally weighted or otherwise internally loaded to promote rapid and positive closure.

(f) Residential Dual Check - A compact unit manufactured with two independent spring actuated check valves. The residential dual check is acceptable only as added back-flow prevention in areas served by reuse systems defined in Chapter 17-610, Part III, F.A.C., when the cross connection control program identifies activities specific to (5)(a) and (5)(b) of this section.

(5) Cross connection control programs specific to reuse systems defined in Chapter 17-610, Part III, F.A.C., shall consider the following:

(a) Enhanced public education efforts towards prevention of cross connections.

(b) Enhanced inspection programs for portions of the distribution system in areas of reuse for detection and elimination of cross connections.

(c) Dual check valves shall be considered acceptable for reducing risks from back-flow only at residential properties served by reclaimed water unless:

1. Local codes, ordinances, or regulations require greater levels of back-flow prevention.

2. Other hazards exist on the property that require a greater level of back-flow prevention

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.861(9), F.S.

History: New 11-19-87; Formerly 17-22.660; Amended 1-18-89, 1-3-91, 1-1-93.

17-555.360(4) (d) (cont'd.) - 17-555.360(History)



## PART IV

## PUBLIC WATER SYSTEM GENERAL PERMITS

**17-555.400 General.** The terms, conditions, requirements, limitations, and restrictions set forth in this Part are "general permit conditions" and are binding upon the permittee. The conditions are enforceable under Chapter 403, F.S.

**Specific Authority:** 403.814(1), F.S.

**Law Implemented:** 403.861, 403.814, F.S.

**History:** New 1-18-89.

**17-555.410 General Conditions for All General Drinking Water Permits.**

(1) The general permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity shall constitute a violation of the permit. The permittee is placed on notice that violation of the permit may result in suspension or revocation of the permittee's use of the general permit and may cause the Department to begin legal proceedings.

(2) The general permit does not convey any vested rights or any exclusive privileges. It does not authorize any injury to public or private property nor any invasion of personal rights. It does not authorize any infringement of federal, state, or local laws or regulations. It does not eliminate the need to obtain any other federal, state, or local permits that may be required, or allow the permittee to violate any more stringent standards established by federal or local law.

(3) The general permit does not relieve the permittee from liability and penalties when the construction or operation of the permitted system causes harm or injury to human health or welfare; causes harm or injury to animal, plant, or aquatic life; or causes harm or injury to property. It does not allow the permittee to cause pollution in contravention of Florida Statutes and Department rules.

(4) The general permit conveys no title to land or water, nor does it constitute State recognition or acknowledgement of title. It does not constitute authority for reclamation of submerged lands. Only the Board of Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

(5) No general permit shall authorize the use of State owned land without the prior consent of the Board of Trustees of the Internal Improvement Trust Fund pursuant to Section 253.77, F.S.

17-555.400 - 17-555.410(5)

(6) The general permit may be modified, suspended, or revoked in accordance with Chapter 120, F.S., if the Secretary determines that there has been a violation of any of the terms or conditions of the permit, there has been a violation of state drinking water quality standards, or the permittee has submitted false, incomplete, or inaccurate data or information.

(7) The general permit shall not be transferred to a third party.

(8) The general permit authorizes construction and, where applicable, operation of the permitted system.

(9) The permittee agrees in accepting the general permit to make every reasonable effort to conduct the construction authorized by the general permit in a manner that will minimize any adverse effects on adjacent property or on public use of the adjacent property, where applicable, and on the environment, including fish, wildlife, natural resources of the area, water quality, or air quality.

(10) The permittee agrees in accepting the general permit to allow a duly authorized representative of the Department access to the permitted system or activity at reasonable times to inspect and test to determine compliance with the permit and the Department rules.

(11) The permittee agrees to maintain any permitted facility, or activity in good condition and in accordance with the plans submitted to the Department under Rule 17-4.530(1), F.A.C.

(12) A permittee's use of a general permit is limited to five years. However, the permittee may request continued use of the general permit by notifying the Department pursuant to Rule 17-4.530(1), F.A.C. However, the permittee shall give notice of continued use of a general permit thirty days before it expires.

**Specific Authority:** 403.814(1), F.S.

**Law Implemented:** 403.814, F.S.

**History:** New 1-18-89.

17-555.410(6) - 17-555.410(History)



## PART V

## PUBLIC WATER SYSTEM CONSTRUCTION PERMIT

**17-555.500 General** - This part sets forth the various types of drinking water permit applications as well as the minimum information which shall be supplied to the Department in a permit application. Information shall be submitted on each item. The applicant must provide the Department with reasonable assurance that no aspects of the proposed design and proposed and completed construction create or are reasonably likely to have the potential to create an imminent and substantial danger to health. The applicant must also demonstrate compliance with Chapter 17-550, F.A.C., Part III, upon the completion of construction.

**Specific Authority:** 373.016(3), 373.046, 373.309(2), 403.861(2), (6), (8), F.S.

**Law Implemented:** 367.031, 373.016(3), 373.046, 373.309(2), 403.852(12), 403.853(1), (3), 403.861(2), (6), (8), (9), F.S.

**History:** New 11-19-87; Formerly 17-22.710; Amended 1-18-89.

**17-555.510 Public Water Supply Well Construction Permit.**

(1) **Prohibition** - It is prohibited to construct a public water supply well without a permit issued by the appropriate water management district pursuant to Chapter 373, Part III, F.S.

(2) **Application** - Before construction of a public water supply well, the licensed water well contractor shall obtain an application form from and apply to the appropriate water management district for a permit to construct the well in accordance with Rule 17-555.315 and Chapter 17-21, F.A.C., and Chapter 373, Part III, F.S.

**Specific Authority:** 373.016(3), 373.046, 373.309(2), 403.861(2), (6), (8), F.S.

**Law Implemented:** 376.031, 373.016(3), 373.046, 373.309(2), 403.852(12), 403.853(1), (3), 403.861(2), (6), (8), (9), F.S.

**History:** New 11-19-87; Formerly 17-22.715; Amended 1-18-89.

**17-555.520 Drinking Water System Construction Permit Application.**

(1) Before commencing construction or alteration, the supplier of water or an authorized agent of the supplier of water shall make application to the Department using DER Form 17-555.910(1) or, for distribution system extensions pursuant to the General Permit provision of Rule 17-555.540, F.A.C., using DER Form 17-555.910(7). The application shall be executed in full and made in quadruplicate to the

17-555.500 - 17-555.520(1)

Department or an Approved County Public Health Unit. No person shall construct a new or alter an existing drinking water system without a permit from the Department or an Approved County Public Health Unit.

(2) A drinking water system includes the collection, treatment, storage, and distribution segments of a public water system. Construction or alteration of any segment requires a permit which approves the construction or alteration. Those persons who create a consecutive public water system by adding a water conditioning device to a public water system are not required to obtain permits, but must submit a sketch of the consecutive public water system and a complete technical description of the water conditioning device to the appropriate Department or Approved County Public Health Unit. A decision concerning monitoring will be made in accordance with Rule 17-555.540, F.A.C., and said decision will be made known by written notice to the person who had the water conditioning device installed.

(3) A person applying for a permit to construct or alter a public drinking water system should take note of Chapter 471, F.S., which requires that the planning and design of any project involving the public health or safety must be done by a professional engineer licensed in accordance with the Chapter. Further, Chapter 471, F.S., requires that subsequently permitted construction or alteration of public drinking water systems be supervised during construction by a professional engineer. An applicant shall submit the name of his engineer with his application. In the alternative, an applicant may designate his engineer to act as his agent in obtaining a permit.

(4) The permit application form sets forth the minimum information which is to be supplied to the Department or the Approved County Public Health Unit. Additional information may be required by the Department to clarify information submitted in the permit application or to demonstrate that the proposed level of treatment will effectively treat the contaminants present in the raw water. The information required by the application is as follows:

(a) Certificate that the plans for the project have been approved by the governing body of the applicant (city commissioners, corporation, board, etc.).

(b) Comprehensive report describing the project, basis of design, including design data and such pertinent data within the scope of the project and requirements of this Chapter to give an accurate understanding of work to be undertaken and reasons therefore.

17-555.520(1)(cont'd.) - 17-555.520(4)(b)



(c) Prints of drawings of the work project which contain sufficient detail to clearly appraise the Department of the work to be undertaken. All prints shall be minimum of 18 x 24 inches and a maximum size of 36 x 42 inches. The scale of details contained shall be satisfactory for microfilm reproduction. (Reduced size photographic reproduction of drawings for submission may be authorized.)

(d) Complete specifications of the project necessary to supplement the prints submitted.

(e) A certificate authorizing the applicant to provide service if such certificate is required by Chapter 367, F.S.

(5) Fees - A non-refundable fee made payable to the Department or Approved County Public Health Unit shall accompany each application. Processing fees are listed in Rule 17-4.050, F.A.C.

**Specific Authority:** 373.016(3), 373.046, 373.309(2),

403.814(1), 403.861(2), (6), (8), F.S.

**Law Implemented:** 367.031, 373.016(3), 373.046, 373.309(2), 403.852(12), 403.853(1), (3), 403.861(2), (6), (8), (9), F.S.

**History:** New 11-19-87; Formerly 17-22.720; Amended 1-18-89.

#### 17-555.530 Standards for Issuance or Denial of a Permit.

(1) The Department shall evaluate each application for a public water supply permit for:

(a) Compliance with each applicable water quality standard contained in Part III of Chapter 17-550, F.A.C. The applicant shall have the raw water from each new source sampled and analyzed pursuant to Rule 17-550.550, F.A.C.

(b) Adequate engineering design complying with acceptable engineering principles as established in Rule 17-555.310 through .360, F.A.C.

(2) The Department shall either issue or deny a permit pursuant to Chapter 120, F.S. The applicant shall be informed of that decision and the reasons therefore. Construction, alteration, or extension of a public water system shall be in accordance with the Department permit. Changes in a permitted project may be made only on prior written approval and consent of the Department.

(3) Unless stated differently on the face of the construction permit, the permit shall be valid for five years from the date of issuance. Reapproval of expired construction permits shall be considered by the Department upon written request accompanied by an application processing fee as set forth in Rule 17-4.050, F.A.C., to the office that issued the original permit. Modifications and

17-555.520(4)(c) - 17-555.530(3)

revocations shall be done in accordance with Rules 17-4.100 and 28-6.090, F.A.C.

**Specific Authority:** 403.861 (9), F.S.

**Law Implemented:** 403.861(7), (9), F.S.

**History:** New 11-19-87; Formerly 17-22.725; Amended 1-18-89, 1-1-93.

#### 17-555.531 Approved County Health Units.

**Specific Authority:** 373.016(3), 373.046, 373.309(2), 403.861(2), (6), (8), F.S.

**Law Implemented:** 376.031, 373.016(3), 373.046, 373.309(2), 403.852(12), 403.853(1), (3), 403.861(2), (6), (8), (9), 403.862(1)(c), F.S.

**History:** New 11-19-87; Formerly 17-22.730; Repealed 1-18-89.

#### 17-555.540 General Permit for the Construction of an Extension to a Public Water Supply Distribution System.

(1) A general permit is hereby granted to any person for the construction of an extension to a public drinking water system that has been designed in accordance with the standards and criteria set forth in this Chapter provided that:

(a) Notice to the Department under Rule 17-4.530(1), F.A.C., is submitted on DER Form 17-555.910(1); and

(b) The treatment facility to which the system will be connected has the capacity to provide the potable water supply required by this system and is in compliance with the standards and criteria set forth in Chapters 17-550, 17-551, 17-560, F.A.C., and this Chapter for the drinking water system and the quality of water which it provides.

(2) This general permit is subject to the general conditions of Rule 17-555.410, F.A.C., and the following specific conditions:

(a) The permittee or his engineer of record shall file with the Department upon completion of the work, a copy of the record drawings for the system.

(b) Before the system may be placed into service, a certification of construction completion by either the engineer of record or the system's professional engineer who was responsible for overseeing construction and a copy of satisfactory bacteriological results described in Rule 17-555.345, F.A.C., must be submitted to the appropriate office of the Department or Approved County Public Health Unit and a letter of clearance be issued.

**Specific Authority:** 403.861(9), F.S.

**Law Implemented:** 403.0877, 403.861 (9), (10) F.S.

**History:** New 11-19-87, Formerly 17-22.725; Amended 1-18-89, 1-1-93.

17-555.530(History) - 17-555.540(History)



PART VI  
ADDITIONAL REQUIREMENTS FOR SURFACE WATER SYSTEMS

17-555.600 Scope of Additional Requirements for Surface Water Systems.

(1) These rules are intended to implement the National Primary Drinking Water Regulations related to the filtration and disinfection of surface water and ground water under the direct influence of surface water as promulgated under 40 CFR 141, Subpart H (1989). They adopt filtration and disinfection as best available treatment techniques in the removal or inactivation of pathogens in lieu of establishing a maximum contaminant level for the following contaminants: Giardia lamblia, viruses, heterotrophic plate count bacteria, Legionella, and turbidity. Systems using ground water under the direct influence of surface water as defined in Rule 17-550.200, F.A.C., are considered surface water systems for purposes of Chapters 17-550, 17-555 and 17-560, F.A.C.

(2) The method used to determine which ground water systems are under the direct influence of surface water shall be as described in Chapter 2 of the reference in Rule 17-555.335, F.A.C.

Specific Authority: 403.853(3), 403.861(8), F.S.

Law Implemented: 403.852(12), 403.853(1), (3) F.S.

History: New 1-3-91.

17-555.610 Surface Water Treatment Requirements.

(1) Each public water system that is a surface water system shall provide treatment of that source water that complies with these treatment technique requirements. The treatment technique requirements consist of installing and properly operating water treatment processes which reliably achieve:

(a) At least 99.9 percent (3-log) removal or inactivation of Giardia lamblia cysts between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at taps providing water for human consumption; and

(b) At least 99.99 percent (4-log) removal or inactivation of viruses between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at taps providing water for human consumption.

(2) A surface water system is considered to be in compliance with the requirements of subsection (1) of this section if it meets the filtration and the disinfection requirements in Rules 17-555.620 and 17-555.630, F.A.C., respectively. The Department shall use Chapters 4 and 5 of

17-555.600 - 17-555.610(2)

the reference document in Rule 17-555.335, F.A.C., to determine compliance with this part.

Specific Authority: 403.861(8), F.S.

Law Implemented: 403.852(12), 403.853(1), F.S.

History: New 1-3-91.

17-555.620 Surface Water Filtration.

(1) A surface water system shall provide treatment consisting of both disinfection, as specified in Rule 17-555.630, F.A.C., and filtration treatment which complies with the requirements of subsections (2), (3), (4) or (5) of this section. Such treatment shall be provided by June 29, 1993, or within 18 months, whichever is later, after the Department has determined, pursuant to Rule 17-555.600, F.A.C., that the public water system's ground water resources are under the direct influence of surface water. Failure to meet any requirement of this section after the time limits specified in this section is a treatment technique violation.

(2) Conventional Filtration Treatment or Direct Filtration.

(a) For systems that use conventional filtration or direct filtration, the turbidity level of representative samples of a system's filtered water shall be less than or equal to 0.5 NTU in at least 95 percent of the measurements taken each month, measured as specified in Chapter 10D-41, F.A.C. However, if the Department determines, after a showing made by the supplier of water, that the system is capable of achieving at least 99.9 percent removal or inactivation of Giardia lamblia cysts at some turbidity level higher than 0.5 NTU in at least 95 percent of the measurements taken each month, the Department shall substitute this higher turbidity limit for that system. In no case shall the Department approve a turbidity limit that allows more than one NTU in more than five percent of the samples taken each month, measured as specified in Chapter 10D-41, F.A.C.

(b) The turbidity level of representative samples of a system's filtered water shall at no time exceed five NTU, measured as specified in Chapter 10D-41, F.A.C.

(3) Slow Sand Filtration.

(a) For systems that use slow sand filtration, the turbidity level of representative samples of a system's filtered water shall be less than or equal to one NTU in at least 95 percent of the measurements taken each month, measured as specified in Chapter 10D-41, F.A.C. However, if the Department determines, after a showing made by the supplier of water, that the system is capable of achieving

17-555.610(2) (cont'd.) - 17-555.620(3) (a)



at least a 99.9 percent removal or inactivation of Giardia lamblia cysts at some turbidity level higher than one NTU in at least 95 percent of the measurements taken each month, the Department shall substitute this higher turbidity limit for that system.

(b) The turbidity level of representative samples of a system's filtered water shall at no time exceed five NTU, measured as specified in Chapter 10D-41, F.A.C.

(4) Diatomaceous Earth Filtration.

(a) For systems that use diatomaceous earth filtration, the turbidity level of representative samples of a system's filtered water shall be less than or equal to one NTU in at least 95 percent of the measurements taken each month, measured as specified in Chapter 10D-41, F.A.C.

(b) The turbidity level of representative samples of a system's filtered water shall at no time exceed five NTU, measured as specified in Chapter 10D-41, F.A.C.

(5) Other Filtration Technologies.

(a) A public water system may use a filtration technology not listed in subsections (2)-(4) of this section if it demonstrates, using pilot plant studies or other means, that the alternative filtration technology, in combination with disinfection treatment that meets the requirements of Rule 17-555.630, F.A.C., consistently achieves 99.9 percent removal or inactivation of Giardia lamblia cysts and 99.99 percent removal or inactivation of viruses. For a system that makes this demonstration, the requirements of Rule 17-555.630, F.A.C., apply.

(b) The turbidity level of representative samples of a system's filtered water shall at no time exceed five NTU, measured as specified in Chapter 10D-41, F.A.C.

Specific Authority: 403.861(8), F.S.

Law Implemented: 403.852(12), 403.853(1), F.S.

History: New 1-3-91.

#### 17-555.630 Surface Water Disinfection.

(1) Disinfection Requirements for Surface Water Systems That Do Not Provide Filtration.

(a) A surface water system that does not provide filtration treatment shall provide the disinfection treatment specified in Section 4.3 of the reference in Rule 17-555.330(3), F.A.C.

(b) Disinfection treatment as specified in paragraph (1)(a) of this section shall be provided beginning December 30, 1991, or six months after the Department determines pursuant to Rule 17-555.600, F.A.C., that the ground water source is under the direct influence of surface water, whichever is later. The system shall comply with these as interim disinfection requirements until filtration is installed.

17-555.620(3)(a) (cont'd.) - 17-555.630(1)(b)

(2) Disinfection Requirements for Surface Water Systems That Provide Filtration.

(a) A system that uses a surface water source that provides filtration treatment shall provide the disinfection treatment specified in this section beginning June 29, 1993.

(b) Failure to meet any requirement of this section is a treatment technique violation.

(3) Disinfection Treatment for Systems That Provide Filtration. Each public water system that provides filtration treatment shall provide disinfection treatment as follows:

(a) The disinfection treatment shall be sufficient to ensure that the total treatment processes of that system achieve at least 99.9 percent (3-log) inactivation or removal of Giardia lamblia cysts and at least 99.99 percent (4-log) inactivation or removal of viruses.

(b) In evaluating the effectiveness of the disinfection treatment in meeting the requirements of subsection (1), the supplier of water shall calculate the product of "residual disinfectant concentration" (C) in milligrams per liter determined before or at taps providing water for human consumption and the corresponding "disinfectant contact time" (T) in minutes, i.e., "C" X "T".

1. If a public water system applies disinfectants at more than one point before taps providing water for human consumption it shall determine the CT value of each disinfectant sequence before or at taps providing water for human consumption to determine the total percent inactivation or "total inactivation ratio." In determining the total inactivation ratio, the public water system shall determine the residual disinfectant concentration of each disinfection sequence and corresponding contact time before any subsequent disinfection application point(s). "CT<sub>99.9</sub>" is the CT value required for 99.9 percent (3-log) inactivation of Giardia lamblia cysts. CT<sub>99.9</sub> for a variety of disinfectants and conditions appear in Tables 1.1 - 1.6, 2.1, and 3.1 of 40 CFR 141.74(b)(3) (1989) and are hereby adopted by reference. The inactivation ratio is CT divided by CT<sub>99.9</sub>. The sum of the inactivation ratios, or total inactivation ratio, is calculated by adding together the inactivation ratio for each disinfection sequence. A total inactivation ratio equal to or greater than 1.0 provides a 3-log inactivation of Giardia lamblia cysts.

2. Where only one "C" is measured, "T" is the time in minutes that it takes for water to move from the point of disinfectant application to a point before or at the point where residual disinfectant concentration ("C") is measured. Where more than one "C" is measured, "T", for the first

17-555.630(2) - 17-555.630(3)(b)2.



measurement of "C", is the time in minutes that it takes for water to move from the first or only point of disinfectant application to a point before or at the point where the first "C" is measured; and for subsequent measurements of "C", the time in minutes that it takes for water to move from the previous "C" measurement point to the "C" measurement point for which the particular "T" is being calculated. Disinfectant contact time in pipelines shall be calculated based on "plug flow" by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe. Disinfectant contact time within mixing basins and storage reservoirs shall be determined by tracer studies or an equivalent demonstration.

(c) The residual disinfectant concentration in the water entering the distribution system, measured as specified in Chapter 10D-41, F.A.C., shall not be less than 0.2 milligrams per liter free chlorine or its equivalent for more than four hours.

(d) The residual disinfectant concentration in the distribution system, measured as total chlorine, combined chlorine, or chlorine dioxide, as specified in Chapter 10D-41, F.A.C., shall not be undetectable in more than five percent of the samples each month for any two consecutive months that the system serves water to the public. Failure to meet this requirement is a treatment technique violation. Water in the distribution system with a heterotrophic bacteria concentration less than or equal to 500 per milliliter, measured as heterotrophic plate count as specified in Rule 17-550.560, F.A.C., is deemed to have a detectable disinfectant residual for purposes of determining compliance with this requirement. Thus, the value "V" in the following formula shall not exceed five percent in one month, for any two consecutive months.

$$V = ((c+d+e)/(a+b)) \times 100$$

where:

a = number of instances where the residual disinfectant concentration is measured;

b = number of instances where the residual disinfectant concentration is not measured but heterotrophic bacteria plate count is measured;

c = number of instances where the residual disinfectant concentration is measured but not detected and no heterotrophic plate count is measured;

d = number of instances where no residual disinfectant concentration is detected and where the heterotrophic plate count is >500 per milliliter; and

17-555.630(3)(b)2.(cont'd.) - 17-555.630(3)(d)

e = number of instances where the residual disinfectant concentration is not measured and heterotrophic plate count is >500 per milliliter.

Specific Authority: 403.853(3), 403.861(9), F.S.

Law Implemented: 403.853(1), (3), F.S.

History: New 1-3-91, Amended 1-1-93.

PART VII(Reserved)

PART VIII  
(Reserved)

17-555.630(3)(d)cont'd. - 17-555.630(History)



PART IX  
FORMS AND INSTRUCTIONS

## 17-555.900 Availability of Forms for Drinking Water Program.

The forms and instructions used by the Department in the Public Water System Supervision Program are adopted and incorporated by reference in this part and are listed in Rule 17-555.910, F.A.C. Each form is listed by rule number, which is also the form number, and with the title and effective date. Copies of these forms and instructions may be obtained by writing to the Division of Administrative Services, Information Center, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. In addition, these forms are available at the Department's District offices as described in Rule 17-101.050, F.A.C.

**Specific Authority:** 120.53(1), 403.861, F.S.

**Law Implemented:** 120.53(1), F.S.

**History:** New 1-18-89, Amended 1-3-91.

## 17-555.910 Forms and Instructions.

(1) Application for Construction Permit Public Drinking Water System, May 1991.

(2) Drinking Water Treatment Plant Daily Operation Summary, November 1, 1988.

(3) Water Treatment Plant Operation Report, November 1, 1988.

(4) Drinking Water Treatment Plant Operations Report-Reverse Osmosis (R.O.), May 1991.

(5) Water Treatment Plant Monthly Operation Report Summary, November 1, 1988.

(6) Application for Variance or Exemption Florida Safe Drinking Water Act, November 1, 1988.

(7) Notice of Intent to Use General Permit for Wastewater Collection System/Drinking Water Distribution System, November 1, 1988.

(8) Application for Transfer of Drinking Water System Permit, November 1, 1988.

(9) Request for Letter of Release to Place Water Supply System into Service, November 1, 1988.

**Specific Authority:** 120.53(1), 403.861, F.S.

**Law Implemented:** 120.53(1), F.S.

**History:** Formerly 17-1.208; Transferred and Amended 11-19-87; Formerly 17-22.999; Amended 1-18-89, 5-23-91.

17-555.900 - 17-555.910(History)



CHAPTER 17-551  
CONTROL OF LEAD AND COPPER

PART I  
PURPOSE AND INTENT

17-551.100 Scope of Lead and Copper Control.  
17-551.103 Effective Date.

PART II  
DEFINITIONS

17-551.200 Definitions for Lead and Copper Control.

PART III  
GENERAL REQUIREMENTS

17-551.300 Requirements for Lead and Copper Control.  
17-551.310 Measurement of Action Level Compliance.  
17-551.320 Corrosion Control Compliance Steps for Large Systems.  
17-551.330 Corrosion Control Treatment Steps for Small and Medium Systems.

PART IV  
TAP AND ENTRY POINT MONITORING

17-551.400 Tap Monitoring Requirements for Lead and Copper.  
17-551.410 Selecting Lead and Copper Tap Sampling Sites.  
17-551.420 Conducting a Materials Survey and Records Review.  
17-551.430 Lead and Copper Tap Sample Collection and Analytical Methods.  
17-551.440 Number of Lead and Copper Tap Samples.  
17-551.450 Lead and Copper Tap Monitoring Schedule and Frequency.  
17-551.460 Tap and Entry Point Monitoring Requirements for Water Quality Parameters.  
17-551.470 Sampling for Water Quality Parameters.

PART V  
CORROSION CONTROL TREATMENT

17-551.500 Description of Corrosion Control Treatment Requirements.  
17-551.510 Performance of Corrosion Control Studies.  
17-551.520 Approval of Corrosion Control Treatment.  
17-551.530 Installation and Operation of Corrosion Control.

17-551.540 Optimization of Corrosion Control Treatment and Approval of Water Quality Parameters.  
17-551.550 Reduction of Corrosion Control Treatment.

PART VI  
SOURCE WATER MONITORING AND TREATMENT

17-551.600 Monitoring Requirements for Lead and Copper in Source Water.  
17-551.610 Source Water Treatment Installation.  
17-551.620 Operation and Monitoring after Installation of Source Water Treatment.

PART VII  
LEAD SERVICE LINE REPLACEMENT

17-551.700 Lead Service Line Replacement Requirements.  
17-551.710 Lead Service Line Replacement Schedule.

PART VIII  
PUBLIC EDUCATION REQUIREMENTS

17-551.800 Public Education Requirements.  
17-551.810 Delivery of a Public Education Program by Community Public Water Systems.  
17-551.820 Delivery of a Public Education Program by Non-Transient Non-Community Systems.  
17-551.830 Content of Written Materials.  
17-551.840 Content of Broadcast Materials.  
17-551.850 Supplemental Monitoring; Additional Notification of Results.

PART IX  
REPORTING REQUIREMENTS AND INSTRUCTIONS

17-551.900 Reporting Requirements for Tap Monitoring for Lead and Copper and for Water Quality Parameter Monitoring.  
17-551.910 Source Water Monitoring and Treatment Reporting Requirements.  
17-551.920 Corrosion Control Treatment Reporting Requirements.  
17-551.930 Lead Service Line Replacement Reporting Requirements.  
17-551.940 Public Education Program Reporting Requirements.  
17-551.950 Forms and Instructions for the Control of Lead and Copper.  
17-551.951 Reporting Formats for the Control of Lead and Copper.



### PART I PURPOSE AND INTENT

**17-551.100 Scope of Lead and Copper Control.** These rules are intended to implement the National Primary Drinking Water Regulations related to the control of lead and copper in drinking water as promulgated under Title 40 of the Code of Federal Regulations Parts 141 and 142. These rules establish a treatment technique that includes requirements for corrosion control treatment, source water treatment, lead service line replacement, and public education, which are triggered, in some cases, by lead and copper action levels measured in samples collected at consumers' taps. These rules establish action levels and treatment requirements for community and non-transient non-community public water systems and refer to the analytical methods required to be used by certified laboratories.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93.

**17-551.103 Effective Date.** The effective date for this chapter shall be January 1, 1993.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 1-1-93

### PART II DEFINITIONS

**17-551.200 Definitions for Lead and Copper Control.** For the purposes of this Chapter, the definitions found in Section 17-550.200, F.A.C., shall apply. In addition, the following definitions shall also apply.

(1) "Action level" is the concentration of lead or copper in water specified in Section 17-551.310, F.A.C., which determines the treatment requirements that a system is required to complete.

(2) "Corrosion inhibitor" means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

(3) "Effective corrosion inhibitor residual," for the purpose of this Chapter only, means a concentration sufficient to form a passivating film on the interior walls of a pipe.

17-551.100 - 17-551.200(3)

(4) "First draw sample" means a one-liter sample of tap water that has been standing in plumbing pipes at least 6 hours and is collected without flushing the tap.

(5) "Large system" means a water system that serves more than 50,000 people.

(6) "Lead service line" means a service line made of lead which connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such a lead line.

(7) "Medium system" means a water system that serves greater than 3,300 and less than or equal to 50,000 people.

(8) "Optimal corrosion control treatment" means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps while ensuring that the treatment does not cause the system to violate any national primary drinking water regulations.

(9) "Service line sample" means a one-liter sample of water that has been standing for at least 6 hours in a service line and is collected in accordance with Rule 17-551.430(5), F.A.C.

(10) "Single family structure" means a building constructed as a single-family residence that is currently used as either a residence or a place of business.

(11) "Small system" means a water system that serves 3,300 people or less.

(12) "Source water sample," for the purpose of this Chapter only, means a sample that is collected at an entry point to the distribution system and is representative of a source of supply after treatment.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93.

### PART III GENERAL REQUIREMENTS

**17-551.300 Requirements for Lead and Copper Control.**

(1) Applicability. Unless otherwise indicated, each of the provisions of Chapter 17-551, F.A.C., apply to community water systems and non-transient non-community water systems, hereinafter referred to as "systems".

(2) Consecutive water systems. Consecutive public water systems are systems that receive 100 percent of their potable water from another public water system, which is called the primary system.

(a) Consecutive systems not exceeding an action level after completion of the two initial six-month monitoring periods may consolidate their sampling, monitoring,

17-551.200(4) - 17-551.300(2)(a)



treatment and reporting requirements under this chapter with that of another consecutive system or its primary system.

(b) Consecutive systems that exceed an action level may only consolidate corrosion control treatment and reporting requirements, and source water monitoring, treatment and reporting requirements under this chapter with that of a primary system.

(c) To consolidate any requirement under this chapter, systems must receive written approval from the Department based on a written showing by the systems that they are interconnected in a manner that justifies treating them as a single system. Such a written showing must also include an agreement between the systems that establishes responsibility for meeting the requirements of this chapter. In any agreement, the responsibility for any public education delivery and reporting shall not be consolidated. The responsibility for source water monitoring, treatment and reporting shall reside with the primary system. The responsibility for any corrosion control study or treatment and lead service line replacement shall be specified in the agreement.

(3) Lead and copper action levels:

(a) The lead action level is exceeded when the concentration of lead in more than 10 percent of tap samples collected during any monitoring period conducted in accordance with Section 17-551.450, F.A.C., is greater than 0.015 milligrams per liter and, therefore, the 90th percentile lead level is greater than 0.015 milligrams per liter.

(b) The copper action level is exceeded when the concentration of copper in more than 10 percent of tap samples collected during any monitoring period conducted in accordance with Section 17-551.450, F.A.C., is greater than 1.3 milligrams per liter and, therefore, the 90th percentile copper level is greater than 1.3 milligrams per liter.

(4) Corrosion control treatment requirements.

(a) All large systems shall install and operate optimal corrosion control treatment as defined in Rule 17-551.200(8), F.A.C. All medium and small systems shall complete the corrosion control treatment steps outlined in Section 17-551.330, F.A.C.

(b) Any system that complies with the applicable corrosion control treatment requirements specified under Section 17-551.540, F.A.C., shall be deemed in compliance with the requirements of paragraph (4)(a) above.

(5) Alternative remedial actions. Non-transient non-community public water systems may replace faucets and fixtures containing lead, lead-lined water coolers, lead

17-551.300(2)(a)(cont'd.) - 17-551.300(5)

pipe, lead based solder and flux and other plumbing components containing lead in lieu of performing the corrosion control treatment steps outlined in (4) above. After performing such remedial actions, a system must demonstrate that for two successive six month monitoring periods that it does not exceed the lead or copper action level. In such case, the Department shall deem such system to be in compliance with the corrosion control requirements of Rule 17-551.550(1), F.A.C., until such time that the lead or copper action level is exceeded. If a system cannot make this showing, it must complete the corrosion control treatment steps required under (4) above. Systems shall use the sampling protocol outlined in pages 26 through 48 of "Lead in School Drinking Water," U.S. Environmental Protection Agency, Office of Drinking Water, Washington, D.C., January 1989, Doc. No. EPA 570/9-89-001, Source: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20442, herein adopted and incorporated as a reference, when evaluating interior plumbing.

(6) Source water monitoring and treatment requirements. Any system exceeding the lead or copper action level shall implement all applicable source water monitoring and treatment requirements specified under Part VI of this chapter.

(7) Lead service line replacement requirements. Any system which exceeds the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service line replacement requirements contained in Part VII of this chapter.

(8) Public education requirements. Any system which exceeds the lead action level shall implement the public education requirements contained in Part VIII.

(9) Monitoring and analytical requirements. Tap monitoring for lead and copper and monitoring for water quality parameters shall be completed in compliance with Part IV of this chapter. Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted using standard methods referenced in Rule 10D-41.053, F.A.C., and in accordance with the provisions of Section 17-550.500, F.A.C. Monitoring data collected by large and medium systems during 1992 may be used by a system to demonstrate compliance with initial monitoring requirements, if the data were collected and analyzed in accordance with the requirements of this chapter.

17-551.300(5)(cont'd.) - 17-551.300(9)



(10) Reporting requirements. All systems shall report to the Department all information as required in Part IX of this chapter.

(11) Recordkeeping requirements. Systems shall maintain records in accordance with Rule 17-550.720(6), F.A.C.

(12) Violation of primary drinking water regulations. Failure to comply with the applicable requirements of this Chapter shall constitute a violation of the primary drinking water regulation for lead or copper unless a variance or exemption has been granted pursuant to Rule 17-560.510 or 17-560.520, F.A.C.

(13) Modification of treatment decisions. Any Department modification, revocation, or rejection determinations made pursuant to the requirements of this chapter will be in accordance with the administrative procedures of Chapters 17-4 and 17-103, F.A.C.

Specific Authority: 403.861(9), F.S.

F.S. Law Implemented: 403.853, 403.862(1), F.S.

History: New 01-01-93, Amended 7-4-93.

**17-551.310 Measurement of Action Level Compliance.** The 90th percentile lead and copper action levels shall be computed as follows:

(1) The results of all 1 liter first draw lead or copper samples taken during a monitoring period shall be ranked in ascending order, from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest contaminant level. Therefore, the number assigned to the sample with the highest contaminant level will equal the total number of samples taken.

(2) If additional first draw samples are reported to the Department under Rule 17-551.450(6), F.A.C., only those meeting the system's lowest tier number (i.e. 1 is the lowest tier, 4 is the highest tier) characteristics shall be included when calculating the 90th percentile. In this case, the total number of samples considered may exceed the minimum number required for standard monitoring.

(3) In order to compute the 90th percentile sample rank, the number of samples taken during the monitoring period shall be multiplied by 0.9. This result shall be rounded to the nearest whole number. This will be the rank of the 90th percentile sample.

(4) The contaminant concentration of the numbered sample yielded by the calculation in subsection (3) above is the 90th percentile contaminant level.

17-551.300(10) - 17-551.310(4)

(5) For systems that collect 5 or fewer samples per monitoring period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

(6) For systems that collect only one sample, the 90th percentile sample will be based on the value reported.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

**17-551.320 Corrosion Control Compliance Steps for Large Systems.** Except as provided in Rule 17-551.540(1), F.A.C., large systems shall complete the following compliance steps by the indicated dates.

(1) The system shall conduct initial monitoring for lead and copper pursuant to Rule 17-551.450(1), F.A.C., and for water quality parameters, pursuant to Rule 17-551.470(2), F.A.C., during two consecutive six-month monitoring periods ending January 1, 1994. Initial tap monitoring for lead and copper and water quality parameter monitoring, performed during 1992, that meets the requirements of 40 CFR 141.86, or 141.87, respectively, on pages 26555 through 26559 of the June 7, 1991 Federal Register shall constitute compliance with this requirement.

(2) The system shall complete and submit to the Department corrosion control studies pursuant to Section 17-551.510, F.A.C., by July 1, 1994.

(3) The Department shall approve or deny a system's study's recommendation that it has optimized corrosion control or its application for a permit to construct a corrosion control treatment facility pursuant to Section 17-551.520, F.A.C.

(4) The system shall construct any approved corrosion control treatment facility pursuant to Section 17-551.530, F.A.C., by January 1, 1997.

(5) The system shall complete follow-up sampling pursuant to Rules 17-551.450(2), and 17-551.470(1)(b), F.A.C., by January 1, 1998.

(6) The Department shall review installation of treatment pursuant to Rule 17-551.540(1), F.A.C., and designate optimal water quality control parameters pursuant to Rule 17-551.540(3), F.A.C., by July 1, 1998.

(7) The system shall operate in compliance with the optimal water quality control parameters specified pursuant to Rule 17-551.540(3), F.A.C., and continue to conduct tap sampling for lead and copper according to Rule

17-551.310(5) - 17-551.320(7)



17-551.450(4), F.A.C., and monitoring for water quality parameters according to Rule 17-551.470(1)(c), F.A.C. Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

**17-551.330 Corrosion Control Treatment Steps for Small and Medium Systems.** Except as provided in Rules 17-551.540(1), and 17-551.550(1), F.A.C., small and medium systems shall complete the following corrosion control treatment steps by the indicated deadlines.

(1) Systems shall conduct tap sampling for lead and copper pursuant to Rule 17-551.450(1), F.A.C., until the system either exceeds the lead or copper action level or becomes eligible for reduced monitoring under Rule 17-551.450(5), F.A.C. Tap sampling for lead and copper that is performed during 1992 and that meets the requirements of 40 CFR 141.86 on pages 26555 through 26557 of the June 7, 1991 Federal Register shall be used to determine compliance with this requirement.

(2) A system shall conduct tap and entry point monitoring for water quality parameters during two-successive six-month monitoring periods after an action level is exceeded and after the installation of corrosion control.

(3) A system shall complete corrosion control studies pursuant to Section 17-551.510, F.A.C., within 18 months after it exceeds the lead or copper action level and shall submit a recommendation for optimal corrosion control treatment to the Department.

(4) The Department shall review and take final agency action pursuant to Section 17-551.520, F.A.C., on the system's corrosion control treatment recommendation and permit application submitted under subsection (3) above.

(5) The system shall install optimal corrosion control treatment, within 24 months after the Department approves its recommended treatment pursuant to Rule 17-551.530, F.A.C.

(6) The system shall complete follow-up sampling pursuant to Rules 17-551.450(2) and 17-551.470(1)(b), F.A.C., within 36 months after the Department designates optimal corrosion control treatment.

(7) The Department shall review the system's installation of treatment under Rule 17-551.540(1), F.A.C., and designate optimal water quality control parameters under Rule 17-551.540(3), F.A.C., within 90 days after the system has completed the requirements of subsection (6) above.

17-551.320(7) (cont'd.) - 17-551.330(7)

(8) The system shall operate in compliance with the optimal water quality control parameters designated by the Department under Rule 17-551.540(3), F.A.C., and continue to conduct tap sampling for lead and copper according to Rule 17-551.450(4), and water quality parameter monitoring according to Rule 17-551.470(1)(c), F.A.C. Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

#### PART IV TAP AND ENTRY POINT MONITORING

##### 17-551.400 Tap Monitoring Requirements for Lead and Copper.

(1) Tap monitoring for lead and copper and analyses of the monitoring results shall be completed by all community and non-transient non-community public water systems according to the schedules established in Section 17-551.450, F.A.C., and in compliance with the requirements of this part.

(2) Thirty days prior to the applicable date for the start of lead and copper monitoring, each system shall submit to the Department a written Sampling Plan for Lead and Copper Tap Samples and Water Quality Parameters. The Department shall approve a sampling plan and provide written notice to the system based on the following:

(a) The plan identifies a pool of available sampling sites that meets the requirements of Section 17-551.410, F.A.C., and which is sufficiently large to ensure that the system can collect the number of lead and copper tap samples required in Section 17-551.440, F.A.C.

(b) Lead and copper tap sampling sites are categorized as tier 1, 2, 3 or 4 sampling sites pursuant to Section 17-551.410, F.A.C., and, within each tier, sites are identified as a single family (SFR) or multi-family residence (MFR) or a building (BLDG).

(c) Lead and copper tap sampling sites are designated in the plan and selected from the pool of available sampling sites.

(d) Site tier categorizations are based on the results of the materials survey and records review made pursuant to the requirements of Rules 17-551.420(1), and 17-551.420(2), F.A.C.

(e) The supplier of water has reviewed all connections to the distribution system and identified the total number of lead service lines.

(f) The supplier of water has identified a sufficient number of water quality parameter sampling locations that

17-551.330(8) - 17-551.400(2)(f)



meet the requirements of Section 17-551.460, F.A.C., and has proposed to use sampling and analytical techniques specified in Rule 10D-41.053, F.A.C.

(g) Any replacement sites shall meet the requirements of Rule 17-551.410, F.A.C. When any selected sampling sites are changed, the reasons for any change are reported prior to sampling using Part VI of Form 17-551.950(1) and meet one or more of the conditions below.

1. A previously sampled site is unavailable because the site no longer exists or the owner of the building has refused to allow it to be sampled.

2. The service line or interior plumbing materials have been replaced so that the tier category of the site has changed.

3. No sampling results at the site have exceeded the lead action level.

(h) The system has submitted the lead and copper tap and water quality parameter sampling plan using Form 17-551.950(1).

(3) A system shall submit a revised sampling plan for approval prior to any reduced monitoring and prior to any six-month monitoring period when the selected sampling site locations or sites in the sampling pool are changed.

(4) Systems may consult Chapter 3 of the U.S. EPA, "Lead and Copper Rule Guidance Manual, Volume 1, Monitoring," September 1991, for detailed guidance on how to prepare sampling plans, and conduct materials surveys, record reviews and tap sampling for lead and copper.  
Specific Authority: 403.861(9), F.S.  
Law Implemented: 403.853, F.S.  
History: New 01-01-93, Amended 7-4-93.

#### 17-551.410 Selecting Lead and Copper Tap Sampling Sites.

(1) Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants, unless the system serves only such sites.

(2) Community water system sites.

(a) All sampling sites selected for a community water system's sampling pool shall be tier 1 sites that consist of child care facilities or single family structures that:

1. contain copper pipes with lead solder installed after 1982 or contain lead pipes; or

2. are served by a lead service line.

(b) When multiple-family residences comprise at least 20 percent of the structures served by a system, the system may include these types of structures in its sampling pool.

17-551.400(2)(f) (cont'd.) - 17-551.410(2)(b)

(c) Tier 1 sample distribution.

1. Any system which has a distribution system containing lead service lines shall draw 50 percent of the samples it collects during each monitoring period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of the samples from sites served by a lead service line.

2. A system which cannot identify a sufficient number of sampling sites served by a lead service line shall document in its sampling plan why the system was unable to locate a sufficient number of such sites. Such a system shall collect lead service line samples from all of the sites identified as being served by such lines.

(d) Any community water system with too few tier 1 sampling sites shall complete its sampling pool with tier 2 sampling sites. Tier 2 sampling sites consist of buildings, including multiple-family residences that:

1. contain copper pipes with lead solder installed after 1982 or contain lead pipes; or

2. are served by a lead service line.

(e) Any community water system with too few tier 1 and tier 2 sampling sites shall complete its sampling pool with tier 3 sampling sites. Tier 3 sampling sites consists of single family structures that contain copper pipes with lead solder installed before 1983. A system with too few tier 1 through tier 3 sites shall complete its sampling pool with tier 4 sites that are identified as susceptible to lead or copper contamination based on the following:

1. the site is a multi-family residential structure with lead solder built before 1983,

2. tap sampling results from sampling taken pursuant to the Lead Contamination Control Act exceed the lead action level,

3. the site has a service line with a lead gooseneck or pigtail,

4. the site has brass, bronze or chrome-plated brass faucets, with or without brass valves, and the water system is otherwise made of plastic piping components,

5. the tap is served by a distribution system that contains lead components or lead caulking that are located within 100 feet of the site's service connection, or

6. the system only has sites with faucets that are served by point-of-use or point-of-entry treatment devices designed to remove inorganics.

(3) Non-transient non-community system tap sampling sites.

(a) Tier 1 sampling sites selected by a non-transient non-community water system shall consist of buildings that:

17-551.410(2)(c) - 17-551.410(3)(a)



1. Contain copper pipes with lead solder installed after 1982 or contain lead pipes; or
2. Are served by a lead service line.
- (b) A non-transient non-community water system with too few tier 1 sites shall complete its sampling pool with tier 2 sampling sites that contain copper pipes with lead solder installed before 1983. When there are too few tier 2 sites, tier 3 sites shall be selected from tap locations that are susceptible to high lead or copper concentrations based on the criteria in Rules 17-551.410(2)(e)2., through 6., F.A.C.
- (4) Any system with a sampling plan that does not consist exclusively of tier 1 sites shall document in its written sampling plan why it is unable to locate a sufficient number of tier 1 sites by the date tap monitoring for lead and copper is required to begin.
- (5) Systems shall replace sampling sites where plumbing modifications at the site have changed its sampling pool tier.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

#### 17-551.420 Conducting a Materials Survey and Records Review.

- (1) Materials survey.
- (a) When developing a lead and copper tap sampling plan, a system shall collect the following information to document the existence of tier 1 sampling sites.
  1. Distribution system.
  - a. Location and extent of the use of lead piping,
  - b. Number, location and length of lead service lines, and
  - c. Location of where lead in solder, solder caulking, the interior lining of distribution mains; and alloys is found.
  2. Interior plumbing.
  - a. Location and number of buildings that contain lead pipe, and
  - b. Location and number of buildings that contain lead solder.
- (b) The results of the Materials Survey shall be submitted to the Department using Part III of Form 17-551.950(1). The location of any materials reported shall be indicated on a map kept at the system and available for inspection by the Department.
- (2) Records Review. In addition to evaluating the distribution system materials to locate sampling sites, the system shall review the records listed below to identify

17-551.410(3)(a)1. - 17-551.420(2)

sites. The system shall seek to collect such information where possible in the course of its normal operations by using the following:

- (a) all plumbing codes, permits, and records in the files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;
  - (b) all inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and
  - (c) the results of all prior tap sampling of the system or individual buildings connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.
  - (d) The results of the records review shall be submitted to the Department using Part II of Form 17-551.950(1).
- Specific Authority: 403.861(9), F.S.  
Law Implemented: 403.853, F.S.  
History: New 01-01-93, Amended 7-4-93.

#### 17-551.430 Lead and Copper Tap Sample Collection and Analytical Methods.

- (1) All tap samples for lead and copper, with the exception of lead service line samples, shall be first draw samples.
- (2) Each first draw tap sample for lead and copper shall be one liter in volume and have remained motionless in the plumbing system of each sampling site for at least six hours.
- (3) First draw samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. First draw samples from a nonresidential building shall be collected at an interior tap from which water is typically drawn for consumption, such as a drinking water fountain or cooler at schools.
- (4) First draw tap samples may be collected by the system or the system may allow residents to collect first draw tap samples after instructing the residents of the sampling procedures specified in this section. To avoid problems of residents handling nitric acid, acidification of first draw samples may be done up to 14 days after the sample is collected. If the sample is not acidified immediately after collection, then the sample must stand in the original container for at least 28 hours after acidification. If a system allows residents to perform

17-551.420(2)(cont'd.) - 17-551.430(4)



sampling, the system may not challenge the accuracy of sampling results based on alleged errors in sample collection.

(5) Each lead service line sample shall be one liter in volume and have remained motionless in the lead service line for at least six hours. Lead service line samples shall be collected by the system in one of the following three ways:

(a) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and lead service line. Systems should consult Section 4.3 of the EPA "Lead And Copper Rule, Guidance Manual, Volume I, Monitoring," incorporated as a guideline under Rule 17-555.335(2), F.A.C., for additional information on monitoring lead service lines;

(b) Tapping directly into the lead service line; or

(c) If the sampling site is a building constructed as a single family residence, allowing the water to run until there is a noticeable change in temperature which would be indicative of water that has been standing in the lead service line.

(6) After collecting an initial sample, the system shall collect each subsequent sample from the same sampling site. If, for any reason, the system cannot gain entry to a sampling site in order to collect a follow-up tap sample, the system shall collect the follow-up tap sample from another sampling site in its sampling pool, as long as the new site meets the same site selection criteria described in Rule 17-551.410, F.A.C. The follow-up tap sample shall be as close to the original site as possible.

(7) Analyses for lead and copper tap samples shall be conducted by a laboratory approved under Section 17-550.550, F.A.C., using standard methods referenced in Rule 10D-41.053, F.A.C. Sample compositing is not allowed. Monitoring data collected by large and medium systems during 1992 shall be used to demonstrate compliance with initial monitoring requirements, if the data were collected and analyzed in accordance with the requirements of this section or 40 CFR 141.89 (1991). Certified laboratories shall use the format specified in Rule 17-551.951(1), F.A.C., to submit lead or copper tap sample analyses to a system. Specific Authority: 403.861(9), F.S. Law Implemented: 403.853; 403.862(1), F.S. History: New 01-01-93, Amended 7-4-93.

17-551.430(4) (cont'd.) - 17-551.430(History)

#### 17-551.440 Number of Lead and Copper Tap Samples.

(1) Systems shall collect at least one sample during each monitoring period from the number of sites or buildings listed in the column titled standard monitoring in subsection (3) below.

(2) A system conducting reduced monitoring under Rule 17-551.450(5), F.A.C., shall, as a minimum, collect samples from the number of sites specified in the reduced monitoring column below, during each monitoring period specified in Rule 17-551.450(5)(d), F.A.C. Consecutive systems that qualify for reduced monitoring may consolidate their sampling plan with that of other consecutive systems connected to the same primary system or the primary system. The consolidated systems shall be considered one system for the purpose of determining the number of reduced sites. Any consolidated plan shall never have less than five samples from each system.

(3) Number of samples.

SYSTEM SIZE PEOPLE SERVED	NUMBER OF SITES FOR STANDARD MONITORING	NUMBER OF SITES FOR REDUCED MONITORING
Greater than 100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
Less than 101	5	5

17-551.440(1) - 17-551.440(3)



(4) Systems shall only take one first draw sample for lead and copper from each sampling site at a single family residence or building.

(5) When too few sampling sites are available, a system sampling multi-family residences shall take no more than one per residence within the building.

(6) When too few sampling sites are available, a system shall take samples from additional taps.

(7) Only if fewer than the required number of taps are available, shall a system take more than one sample per tap. Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

#### 17-551.450 Lead and Copper Tap Monitoring Schedule and Frequency.

(1) Initial tap sampling.

(a) The initial six-month monitoring period for large and medium systems shall begin on January 1, 1993. Small systems shall begin on July 1, 1993.

(b) All large systems shall complete two consecutive six-month monitoring periods by December 31, 1993.

(c) All small and medium systems shall monitor during each six-month monitoring period until:

1. the system meets the lead and copper action levels during two consecutive six-month monitoring periods, in which case, the system may reduce monitoring in accordance with subsection (5), or

17-551.440(4) - 17-551.450(1)(c)1.

2. the system exceeds the lead or copper action level, in which case, the system may continue standard monitoring and shall implement the corrosion control study and treatment requirements of Section 17-551.330, F.A.C. After completing these requirements, the system shall then resume monitoring in accordance with subsection (2) below.

(2) After installation of corrosion control treatment, a system shall monitor during two consecutive six-month monitoring periods by the date specified in Rule 17-551.320(5), F.A.C., for large systems and in Rule 17-551.330(6), F.A.C., for medium and small systems.

(3) Any system which installs source water treatment shall monitor during two consecutive six-month monitoring periods by the date specified in Rule 17-551.600(3), F.A.C.

(4) After the Department approves values for water quality control parameters, the system shall monitor during each subsequent six-month monitoring period, with the first monitoring period to begin on the date the Department approves the water quality parameter values, pursuant to Rule 17-551.540, F.A.C..

(5) Reduced monitoring.

(a) For a system to reduce monitoring, it shall have submitted a request for reduction in monitoring using Form 17-551.950(4), together with a revised sampling plan prepared using Form 17-551.950(1), and have received written approval from the Department based on meeting the requirements of paragraphs (b) or (c) below.

(b) For a system to extend the monitoring frequency from once per six months to annually and to reduce the number of sampling sites to the reduced number of sites listed in subsection (3):

1. A small or medium system shall have met the lead and copper action levels during each of two consecutive six-month monitoring periods, or

2. Any system shall have maintained water quality parameters within the approved range of values specified in Rule 17-551.540(3), F.A.C., for two consecutive six-month monitoring periods.

(c) For a system to extend the frequency of reduced monitoring from annually to once every three years:

1. A small or medium system shall have met the lead and copper action levels during three consecutive years, or

2. Any system shall have maintained water quality parameters within the approved range of values specified in Rule 17-551.540(3), F.A.C., for three consecutive years.

(d) A system which samples annually or less frequently shall conduct lead and copper tap sampling during the months of June, July, August or September. Systems which are not

17-551.450(1)(c)2. - 17-551.450(5)(d)



able to monitor during these four months may not perform reduced monitoring. Any system that reduces the number and frequency of sampling shall collect these samples from:

1. Sites whose interior plumbing materials and service line materials have been verified by field test, and

2. Sites with the highest reported lead results from those included in the sampling plan approved under Rule 17-551.400(2), F.A.C., or

3. Sites included in the sampling plan that have not yet been sampled and are at the same tier level as any site they replace as a selected sampling site.

(e) A small or medium system which has reduced monitoring and afterwards exceeds the lead or copper action level shall resume standard monitoring in accordance with paragraph (1)(c) of this section and collect the number of samples specified for standard monitoring under Rule 17-551.440(3), F.A.C. Such a system shall also conduct water quality parameter monitoring in accordance with Rule 17-551.470(2), F.A.C. Any system which has reduced monitoring and that fails to operate within the range of values for the water quality parameters approved by the Department under Rule 17-551.540, F.A.C., shall resume standard lead and copper tap sampling and collect the number of samples specified for standard monitoring.

(6) Additional Lead and Copper Tap Monitoring by Systems. The results of any additional one liter, first draw sample monitoring taken by the system shall be considered by the system and the Department in making any calculations of the 90th percentile lead or copper level. All additional lead and copper tap samples shall be categorized by their sampling pool characteristics pursuant to Section 17-551.410, F.A.C., and provided for review by the Department. All such lead and copper tap samples meeting the system's lowest tier number characteristics shall be included when calculating the 90th percentile and will become a part of each system's sampling pool. All additional lead and copper tap sample results shall be provided to the Department within 10 days after the end of each monitoring period and clearly labeled as "ADDITIONAL LEAD AND COPPER TAP SAMPLE RESULTS" if they are one liter, first draw samples. Results shall be reported by using the format specified in Rule 17-551.951(1), F.A.C.  
Specific Authority: 403.861(9), F.S.  
Law Implemented: 403.853, F.S.  
History: New 01-01-93, Amended 7-4-93.

17-551.450(5)(d) (cont'd.) - 17-551.450(History)

**17-551.460 Tap and Entry Point Monitoring Requirements for Water Quality Parameters.** All large systems, and those medium and small systems that exceed the lead or copper action level, shall monitor for the applicable water quality parameters as specified in Rule 17-551.470, F.A.C., in addition to lead and copper. Before the initial sampling, systems shall submit a written sampling plan using Form 17-551.950(1) for Department written approval. The general requirements for monitoring for water quality parameters to be included in the sampling plan are:

(1) Sample collection objectives. Samples shall be representative of water quality throughout the distribution system, taking into account the number of persons served, the different sources of water, and the different treatment methods employed by the system. A system shall collect samples evenly throughout the year so as to reflect seasonal variability.

(2) Sampling location.

(a) Systems may find it convenient to conduct sampling for water quality parameters at sites used for coliform sampling. A map showing the location of sampling sites shall be prepared and made available to the Department upon request.

(b) Samples collected at an entry point to the distribution system shall be from locations representative of each source after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system shall sample at an entry point to the distribution system during periods of normal operating conditions when water representative of all sources is being used.

(3) Number of samples.

(a) Distribution system tap samples. Systems shall collect two samples for applicable water quality parameters during each monitoring period from the number of sites shown in the table for standard monitoring.

PEOPLE SERVED	NUMBER OF SITES FOR STANDARD MONITORING	NUMBER OF SITES FOR REDUCED MONITORING
Greater than 100,000	25	10
10,001 to 100,000	10	7
3,301 to 10,000	3	3
501 to 3,300	2	2
101 to 500	1	1
Less than 101	1	1

17-551.460 - 17-551.460(3)(a)



(b) Entry point samples. During each monitoring period, systems shall collect two samples for each applicable water quality parameter at each entry point to the distribution system.

(4) Analytical procedures. An analyses of the applicable corrosion control water quality parameters does not require the use of a certified laboratory. All analysis shall be done according to the methods set forth in Rule 10D-41.053, F.A.C. The system may take a confirmation sample for any water quality parameter value. Such confirmation sample shall be taken no later than 3 days after receipt of the results of the first sample. If a confirmation sample is taken, the result shall be averaged with the first sampling result and the average must be used for any compliance determinations made under Rule 17-551.540(1), F.A.C. The Department shall delete results of obvious sampling errors from this averaging calculation. Specific Authority: 403.861(9), F.S. Law Implemented: 403.853, F.S. History: New 01-01-93, Amended 7-4-93.

#### 17-551.470 Sampling for Water Quality Parameters.

(1) Systems, including consecutive systems, shall measure the water quality parameters at the locations and frequencies as specified in subsection (3) during the following periods:

- (a) the initial monitoring period,
  - (b) after the installation of corrosion control treatment,
  - (c) after approval of water quality parameter values for optimal corrosion control, and
  - (d) after approval to reduce monitoring.
- (2) Large systems shall monitor during each six-month monitoring period beginning on January 1, 1993. Medium and small systems shall monitor during the two successive six-month monitoring periods after which the system exceeds the lead or copper action level and in the six-month monitoring periods beginning after the system has installed corrosion control treatment.

(3) The following table details the monitoring requirements for water quality parameters for the periods specified in subsection (1).

17-551.460(3)(b) - 17-551.470(3)

MONITORING PERIOD	WATER QUALITY PARAMETERS	LOCATION	FREQUENCY
(a) Initial Monitoring	pH, alkalinity, orthophosphate or silica, calcium, conductivity, temperature	Taps and at entry point(s) to the distribution system	Every 6 months
(b) After Installation of Corrosion Control, and	pH, alkalinity, orthophosphate or silica, calcium	Taps	Every 6 months
(c) After Approval of Parameter Values for Optimal Corrosion Control	pH, alkalinity dosage rate and concentration, inhibitor dosage rate and concentration	Entry point(s) to distribution system	Every 2 weeks
(d) After Approval to Reduce Monitoring	pH, alkalinity, orthophosphate or silica, calcium	Taps	Every 6 months, 1 year, or 3 years according to Rule 17-551.470(5), F.A.C.
	pH, alkalinity dosage rate and concentration, inhibitor dosage rate and concentration	Entry point(s) to distribution system	Every 2 weeks

17-551.470(3) Table



(e) Monitoring provisions for inhibitors. Orthophosphate or silica shall be measured only when an inhibitor containing a phosphate or silicate compound is used. Inhibitor dosage rates and inhibitor residual concentrations of orthophosphate or silica shall be measured only when an inhibitor is used.

(f) Monitoring after calcium and alkalinity adjustment. After the initial monitoring, calcium shall be measured only when calcium carbonate stabilization is used as part of corrosion control. The alkalinity dosage rate and concentration in water shall be measured at entry points only if alkalinity is adjusted as part of corrosion control.

(4) Additional monitoring by systems. The results of monitoring conducted by the system in addition to the minimum requirements of this section shall be considered by the system and the Department in making any determinations under this section or Section 17-551.540, F.A.C.

(5) Reduced monitoring.

(a) For a system to reduce monitoring, it shall have submitted a request for reduction in monitoring using Form 17-551.950(4), together with a revised sampling plan prepared using Form 17-551.950(1), and have received written approval from the Department based on meeting the requirements of paragraph (b), (c), or (d) below.

(b) Any system that maintains the approved range of values for the water quality parameters for two consecutive six-month monitoring periods shall continue monitoring at entry points to the distribution system and may collect distribution system tap samples from the reduced number of sites listed in Rule 17-551.460(3)(a), F.A.C., during each subsequent six-month monitoring period.

(c) Any system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during three consecutive years of monitoring every six months may reduce the frequency with which it collects the number of tap samples for water quality parameters from every six months to annually.

(d) Any system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during three consecutive years of annual monitoring may reduce the frequency with which it collects the number of tap samples for water quality parameters from annually to every three years.

(e) Any system subject to reduced monitoring that fails to operate within the range of values for the water quality parameters shall resume tap sampling in accordance with the standard number of sites and frequency requirements in Rules 17-551.460(3) and 17-551.470(3)(c), F.A.C.

17-551.470(3)(e) - 17-551.470(5)(e)

Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, 403.862(1), F.S.

History: New 01-01-93, Amended 7-4-93.

17-551.470(5) (History)



**PART V  
CORROSION CONTROL TREATMENT**

**17-551.500 Description of Corrosion Control Treatment Requirements.** Each system, including consecutive systems, shall complete the following applicable corrosion control study and treatment requirements. Primary systems, providing water to a consecutive system, may perform a joint study with its consecutive systems provided there is a written agreement between such systems that is approved by the Department.

(1) Large systems. All large systems shall:

(a) perform corrosion control studies which the system believes constitutes optimal corrosion control for that system, or demonstrate that the system has optimized corrosion control pursuant to Rule 17-551.540(1)(b), F.A.C.,

(b) complete the corrosion control treatment steps specified in Section 17-551.320, F.A.C., unless the Department has determined that it has optimized corrosion control under Rule 17-551.540(1)(b), F.A.C., and

(c) complete the applicable corrosion control treatment requirements by the deadlines for large systems established in Section 17-551.320, F.A.C.

(2) Small and medium systems. Any small or medium system that exceeds the lead or copper action level shall:

(a) perform corrosion control studies, under Section 17-551.510, F.A.C., to identify optimal corrosion control treatment,

(b) recommend installation of one or more of the corrosion control treatments listed in Rule 17-551.510(1), F.A.C., which the system believes constitutes optimal corrosion control for that system,

(c) complete the corrosion control treatment steps specified in Section 17-551.330, F.A.C., unless it has optimized corrosion control under Rule 17-551.540(1), F.A.C., and

(d) complete applicable corrosion control treatment requirements by the deadlines in Section 17-551.330, F.A.C.

Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

**17-551.510 Performance of Corrosion Control Studies.**

(1) Any system that performs corrosion control studies shall evaluate the effectiveness of each of the following treatments, and combinations of the following treatments to identify the optimal corrosion control treatment for that system and any consecutive systems it supplies:

17-551.500 - 17-551.510(1)

(a) alkalinity and pH adjustment;

(b) calcium hardness adjustment; and

(c) the addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.

(2) The system shall evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration. Systems are advised to consult the "Lead and Copper Rule Guidance Manual, Volume II, Corrosion Control Treatment," incorporated as a guideline under Rule 17-555.335(3), F.A.C., for additional information on evaluating corrosion control treatment.

(3) The system shall measure lead, copper and the water quality parameters listed in Rule 17-551.470(3)(a), F.A.C., in any tests conducted under this section before and after evaluating the corrosion control treatments listed above in subsection (1). A consecutive system shall also measure lead, copper and applicable water quality parameters at the entry points to its distribution system during any tests it conducts under this section.

(4) The system shall identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

(a) data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another system with comparable water quality characteristics; or

(b) data and documentation demonstrating that the system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5) The system shall evaluate the effect of the chemicals used for corrosion control treatment on other water quality treatment processes.

(6) On the basis of an analysis of the data generated during each evaluation, the system shall recommend to the Department, in a written engineering report that is certified by a professional engineer registered in the State of Florida, the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system. The system shall provide a rationale for its recommendation along with all supporting

17-551.510(1)(a) - 17-551.510(6)



documentation specified in subsections (1) through (5) above.

(7) All systems that have completed the corrosion control studies required under Rules 17-551.500(1) and 17-551.500(2), F.A.C., and that recommend the installation of additional treatment facilities or modifications to existing treatment facilities, shall submit an application for a permit to construct the recommended corrosion control treatment facility to the Department using Form 17-555.910(1).

(8) All systems that have completed the corrosion control studies required under Rules 17-551.500(1) and (2), F.A.C., and which recommend that their existing corrosion control treatment facility be deemed optimal shall submit a report summarizing their recommendation pursuant to subsection (6) above.

Specific Authority: 403.0877, 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

#### 17-551.520 Approval of Corrosion Control Treatment.

(1) When approving a system's recommendation of optimal corrosion control, the Department shall either:

(a) Issue a construction permit, for which an application was submitted pursuant to Rules 17-551.510(7), and 17-4.070, F.A.C., to construct or modify a corrosion control treatment facility, based upon consideration of available information including:

1. the permit application, submitted by the system to describe its recommended treatment alternative,

2. the supporting studies performed under Section 17-551.510, F.A.C., and

3. that the recommended corrosion control treatment option is from among those listed in Rule 17-551.510(1), F.A.C., or

(b) Approve a system's recommendation in writing that it has optimized corrosion control pursuant to Rule 17-551.540(1)(c), F.A.C.

(2) If the Department denies a system's application for a permit to construct a corrosion control treatment facility or a system's recommendation that it has optimized corrosion control, the system shall recommend an alternative corrosion control treatment from among those listed in Rule 17-551.510(1), F.A.C., within 90 days after receipt of the Department's denial.

(3) Any permit issued under (1)(a) above shall constitute authority to construct a corrosion control

17-551.510(6) (cont'd.) - 17-551.520(3)

treatment facility within a specified timeframe no later than 24 months.

Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

#### 17-551.530 Installation and Operation of Corrosion Control.

(1) Each system shall properly install and operate throughout its distribution system the optimal corrosion control treatment approved by the Department under Section 17-551.520, F.A.C.

(2) All systems shall maintain water quality parameter values at or above minimum values or within approved ranges in each sample collected. As specified in Rule 17-551.460(4), F.A.C., the system may take a confirmation sample.

(3) If the water quality parameter value of any sample is below the minimum value or outside the approved range, then the system is out of compliance with this subsection.

(4) Within 36 months after installing corrosion control treatment, a system shall provide the Department a report explaining how corrosion control has been installed and how it is being maintained to ensure minimal lead and copper concentrations at consumers' taps. This report shall update the information submitted in the report prepared under Rule 17-551.510(6), F.A.C., to include the following additional information:

(a) the results of all additional test samples

collected for each of the water quality parameters since the corrosion control treatment was installed,

(b) an update of any changes to the explanation of the test methods used by the system to evaluate the corrosion control treatments,

(c) the results of any other tests conducted,

(d) the basis for the system's evaluation of its corrosion control treatment as optimal,

(e) the results of tap samples collected at least once every six months for one year after corrosion control has been installed, and

(f) if warranted by the results of (d), an application for a permit to modify a corrosion control treatment facility using Form 17-555.910(1).

Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

17-551.520(3) (Cont'd.) - 17-551.530(History)



**17-551.540 Optimization of Corrosion Control Treatment and Approval of Water Quality Parameters.** The Department shall evaluate the information submitted by the system under Rule 17-551.530(4), F.A.C., and determine whether the system has properly installed and operated the corrosion control treatment approved by the Department under Section 17-551.520, F.A.C.

(1) Any system shall be deemed to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps specified in Rule 17-551.320 or 17-551.330, F.A.C., if the system satisfies one of the following criteria:

(a) A small or medium system meets the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with Rule 17-551.450(1)(c)2., F.A.C., and submits the test results to the Department.

(b) A system demonstrates for each of two consecutive six-month monitoring periods that the difference between the 90th percentile tap lead level computed under Section 17-551.310, F.A.C., and the highest source water lead concentration, is less than the Practical Quantitation Level for lead, which is 0.005 milligrams per liter.

(c) A system provides an affirmative written demonstration pursuant to Rule 17-551.530(4), F.A.C., that it has conducted activities equivalent to the corrosion control steps applicable to such system under this part.

(2) If the Department determines that a system has properly installed and operated corrosion control treatment, it shall notify the system in writing explaining the basis for its decision that the system has optimized its corrosion control treatment.

(3) The written notice shall specify which water quality control parameters and their levels or ranges that represent optimal corrosion control. This determination will be based upon a review of the results of lead and copper monitoring and water quality parameter monitoring by the system, both before and after the system installs optimal corrosion control treatment. The Department shall approve:

(a) a minimum value or range of values for pH at the entry point to the distribution system;

(b) a minimum pH value, measured in all tap samples. Such value shall be equal to or greater than 7.0, unless the Department, under Rule 17-551.520, F.A.C., approves a written request made by a system included as part of the report under Rule 17-551.510(6), or 17-551.530(4), F.A.C., that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;

17-551.540 - 17-551.540(3)(b)

(c) if a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor that the system demonstrates is necessary to form a passivating film on the interior walls of the pipes of the distribution system;

(d) if alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity;

(e) if calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 1-26-93, 7-4-93.

#### 17-551.550 Reduction of Corrosion Control Treatment.

(1) Any small or medium system that must complete the corrosion control steps because it exceeds lead or copper action levels may stop implementing the treatment steps whenever the system meets both action levels during each of two consecutive monitoring periods conducted pursuant to Rule 17-551.450(1)(c)2., F.A.C., after it submits the results to the Department.

(2) If any such system thereafter exceeds the lead or copper action level during any monitoring period, the system shall recommence progress on the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93.

### PART VI

#### SOURCE WATER MONITORING AND TREATMENT

#### 17-551.600 Monitoring Requirements for Lead and Copper in Source Water.

(1) All systems, except consecutive systems, shall conduct source water monitoring for lead and copper in accordance with Rules 17-550.500, and 17-550.513, and 17-550.520, F.A.C.

(2) Any system which exceeds the lead or copper action level on the basis of samples collected in accordance with Rule 17-551.450(1), F.A.C., shall collect one sample from each entry point to the distribution system within six months after exceeding the action level. A consecutive system may use the results of sampling performed under this subsection by its primary system to demonstrate compliance with this requirement.

17-551.540(3)(c) - 17-551.600(2)



(3) Any system which installs source water treatment pursuant to Rule 17-551.610(2), F.A.C., shall collect an additional sample from each entry point to the distribution system during two consecutive six-month monitoring periods after treatment is installed.

(4) A system shall monitor at the frequency specified below in cases where the Department specifies maximum permissible lead and copper concentrations for finished water pursuant to Rule 17-551.610(4), F.A.C., or determines that the system is not required to install source water treatment pursuant to Rule 17-551.610(1)(c), F.A.C.

(a) A water system using only ground water shall monitor for lead once during each three-year compliance period as specified in Rules 17-550.500 and 17-550.513, F.A.C., and shall monitor for copper once during each three-year compliance period as specified in Rules 17-550.500 and 17-550.520, F.A.C.

(b) A water system using surface water or a combination of surface and ground water shall monitor for lead annually as specified in Rules 17-550.500 and 17-550.513, F.A.C. and shall monitor for copper annually.

(5) Source water samples may be composited pursuant to Rule 17-550.550, F.A.C.

Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

#### 17-551.610 Source Water Treatment Installation.

(1) Within six months after exceeding 0.005 milligram per liter for lead or 1.0 milligram per liter for copper in any samples taken under Rule 17-551.600(2), F.A.C., a system shall submit to the Department a written engineering report certified by a professional engineer registered in the State of Florida.

(a) The report prepared under (1) shall recommend the installation and operation of source water treatment from among ion exchange, reverse osmosis, lime softening or coagulation/filtration and also shall recommend the maximum level for lead in accordance with subsection (4) below, or may recommend that no treatment be installed to remove lead below 0.015 milligrams per liter based upon a demonstration that source water treatment is not necessary to minimize lead levels at users' taps.

(b) Any recommendation made under (a) shall be based on an evaluation of the results of all source water samples submitted by the system or taken by the Department.

(c) If the Department requests additional information to aid in its review of the system's recommendation, the system shall provide the information within 30 days. The

17-551.600(3) - 17-551.610(1)(c)

Department shall notify the system in writing of its determination and set forth the basis for its decision.

(d) After providing a written notice to the Department, a system may elect to have the study required under this subsection incorporated into the corrosion control study required under Rule 17-551.320(2) or 17-551.330(3), F.A.C.

(2) If the Department determines, based on a review of the information submitted under (1) above, that treatment is needed, the system shall submit, within six months after the determination, an application for a permit to construct the approved source water treatment using Form 17-555.910(1).

(3) The Department shall take final action on such permit pursuant to Rule 17-555.530, F.A.C. The system shall install the treatment within 24 months after notification, under (2) above, by the Department.

(4) The Department shall review the source water samples taken by the system both before and after the system installs source water treatment and shall determine whether the system has properly installed and operated the source water treatment. Based upon its review, the Department shall approve maximum permissible lead and copper concentrations for finished water entering the distribution system. The maximum permissible lead concentration for finished water shall be equal to or less than 0.015 milligrams per liter and shall reflect the contaminant removal capability of the treatment properly operated and maintained, and the maximum permissible copper concentration for finished water shall be equal to 1 milligram per liter. The Department shall notify the system in writing and explain the basis for its decision.

Specific Authority 403.861(9), F.S.

Law Implemented: 403.0877, 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

**17-551.620 Operation and Monitoring after Installation of Source Water Treatment.** The terms, conditions, requirements, limitations, and restrictions set forth in this section are conditions that apply to the operation and monitoring of source water treatment after its installation.

(1) The system shall complete follow-up tap monitoring pursuant to Rule 17-551.450(2), F.A.C., and source water monitoring pursuant to Rule 17-551.600(2), F.A.C., within 36 months after notification by the Department to install source water treatment.

(2) The system shall operate source water treatment facilities to not exceed maximum permissible source water levels within 6 months after completion.

17-551.610(1)(c) (cont'd.) - 17-551.620(2)



(3) The system shall operate in compliance with the maximum permissible lead and copper source water levels and continue source water monitoring pursuant to Rule 17-551.600(3), F.A.C.

(4) Each system shall maintain lead and copper levels below the maximum permissible concentrations approved by the Department at each sampling point monitored in accordance with Rule 17-551.600(3), F.A.C. The system is out of compliance if the level of lead or copper at any sampling point is greater than the maximum permissible concentration. Specific Authority 403.861(9), F.S.  
Law Implemented: 403.853, F.S.  
History: New 01-01-93.

#### PART VII LEAD SERVICE LINE REPLACEMENT

##### 17-551.700 Lead Service Line Replacement

###### Requirements.

(1) Systems that fail to meet the lead action level in tap samples taken after installing corrosion control and applicable source water treatment, whichever comes later, shall replace lead service lines in accordance with the requirements of this part. If a system is in violation of either Rule 17-551.530, F.A.C., or 17-551.610(3), F.A.C., for failure to install timely corrosion control or source water treatment, the system shall commence lead service line replacement.

(2) The system shall identify the initial number of lead service lines in its distribution system based upon a materials survey made pursuant to Section 17-551.420, F.A.C. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins.

(3) A system is required to replace an individual lead service line if the lead concentration in any service line samples from that line, taken pursuant to Rule 17-551.430(5), F.A.C., is greater than 0.015 milligrams per liter.

(4) A system shall replace the entire service line up to the building inlet unless it demonstrates pursuant to Rule 17-551.930(4), F.A.C., that it legally controls less than the entire service line. In such cases, the system shall replace the portion of the line which is under the system's control. The system shall notify the user served by the line that the system will replace the portion of the service line under its control and shall offer to replace the building owner's portion of the line, but is not required to bear the cost of replacing the building owner's portion of the line. For buildings where only a portion of

17-551.620(3) - 17-551.700(4)

the lead service line is replaced, the system shall inform the residents in writing that the system will collect a service line sample after partial replacement of the service line is completed if any resident so desires. In cases where the residents accept the offer, the system shall collect the sample and report the results to the residents within 14 days following partial lead service line replacement. For purposes of this chapter, the building inlet is considered to be that point on a line that is 5 feet horizontally distant from the outside face of the building that intersects the service line.

(5) Prior to the replacement of a lead service line, a system shall submit a replacement schedule to the Department, using Form 17-551.950(4).  
Specific Authority: 403.861(9), F.S.  
Law Implemented: 403.853, F.S.  
History: New 01-01-93, Amended 7-4-93.

##### 17-551.710 Lead Service Line Replacement Schedule.

(1) The first year of lead service line replacement shall begin on the date the action level was exceeded in tap sampling taken pursuant to Rule 17-551.450(2), F.A.C., or Rule 17-551.450(3), F.A.C., whichever comes later.

(2) A system shall replace annually at least 15 lead service lines or 10 percent of the initial number of lead service lines in its distribution system, whichever is greater.

(3) A system with less than 150 service connections may schedule replacement of its total number of lead service lines over a three-year period in cases where subsection (2) above requires that its total number of lead service lines be replaced in less than three years.

(4) Any system may cease replacing lead service lines whenever first draw samples collected pursuant to Rule 17-551.450(4), F.A.C., meet the lead action level during each of the most recent two consecutive monitoring periods.

(5) If first draw tap samples collected in any such system thereafter exceed the lead action level, the system shall recommence replacing lead service lines.

(6) To demonstrate compliance with the requirements of this part, a system shall report to the Department the information specified in Section 17-551.930, F.A.C.  
Specific Authority 403.861(9), F.S.  
Law Implemented: 403.853, F.S.  
History: New 01-01-93, 7-4-93.

17-551.700(4) (cont'd.) - 17-551.710(History)



**PART VIII  
PUBLIC EDUCATION REQUIREMENTS**

**17-551.800 Public Education Requirements.** All community systems shall comply with the notification requirements of Rule 17-551.810(2), F.A.C. All non-transient non-community systems shall comply with the public education requirements of Rule 17-551.820(1)(a), F.A.C. A community system or a non-transient non-community system that exceeds the lead action level based on tap samples collected in accordance with Section 17-551.450, F.A.C., shall provide the public education program outlined in Section 17-551.810, or .820, F.A.C., respectively. Specific Authority: 403.861(9), F.S. Law Implemented: 403.853, F.S. History: New 01-01-93, Amended 7-4-93.

**17-551.810 Delivery of a Public Education Program by Community Public Water Systems.**

(1) In communities where a significant proportion of the population speaks a language other than English, public education materials shall be communicated in English and the other appropriate languages.

(2) A system shall, within 60 days of exceeding the lead action level do all of the following:

(a) Insert notices in each customer's water utility bill containing the information in Section 17-551.830, F.A.C., along with the following alert on the water bill itself in large print: "SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION."

(b) Submit the information in Section 17-551.830, F.A.C., to the editorial departments of the major daily and weekly newspapers circulated throughout the community.

(c) Deliver pamphlets or brochures that contain the public education materials in Section 17-551.830, F.A.C., to facilities and organizations, including the following:

1. public schools and their local school boards,
2. private schools and day care facilities;
3. city or county health department;
4. Women, Infants, and Children (WIC) and Head Start Program(s);
5. public and private hospitals and clinics;
6. pediatricians;
7. family planning clinics;
8. local welfare agencies; and
9. libraries.

17-551.800 - 17-551.810(2)(c)9.

(d) Submit the public service announcement in Section 17-551.840, F.A.C., to at least five of the total number of radio and television stations with the largest audiences that broadcast to the community served by the system.

(3) A system shall repeat the tasks contained in paragraphs (2)(a), (b) and (c) of this section every 12 months, and the task contained in paragraph (2)(d) of this section every 6 months for as long as the system exceeds the lead action level.

(4) A system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six-month monitoring period. Such a system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period. Specific Authority: 403.861(9), F.S. Law Implemented: 403.853, F.S. History: New 01-01-93.

**17-551.820 Delivery of a Public Education Program by Non-Transient Non-Community Systems.**

(1) Within 60 days after it exceeds the lead action level, a non-transient non-community water system shall deliver the public education materials contained in Section 17-551.830, F.A.C., as follows:

(a) Post informational posters, no smaller than 8 1/2" by 11" with 10 point or larger print, on lead in drinking water including the results of any tap samples for lead that exceed the action level, in a public place or common area in each of the buildings served by the system; and

(b) Distribute informational pamphlets or brochures on lead in drinking water to each person served by the non-transient non-community water system.

(2) A system shall repeat the tasks contained in this section at least once during each calendar year in which the system exceeds the lead action level and send written documentation using Form 17-551.950(6) to the Department within 90 days after it exceeds the action level. Such documentation shall clearly detail how this information was distributed and shall include a copy of the notice. The Department shall notify the system in writing if it determines that the system is not in compliance with the requirements of subsection (1) above and Rule 17-551.830, F.A.C.

(3) A system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six-month monitoring period conducted pursuant to Section 17-551.450, F.A.C. Such a

17-551.810(2)(d) - 17-551.820(3)



system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

**17-551.830 Content of Written Materials.** A system shall include the text found in the Department's pamphlet, "Public Education Materials for the Control of Lead and Copper," 1992, and shall be included in all of the printed materials a system distributes through its lead public education program. This pamphlet is hereby adopted by reference. Copies of this document may be obtained from the Department or a county public health unit. Any additional information presented by a system shall be consistent with the information in the pamphlet and be in language that can be understood by lay persons.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93.

**17-551.840 Content of Broadcast Materials.** A system shall include the following text in all public service announcements submitted under its lead public education program to television and radio stations for broadcasting:

(1) "Why should everyone want to know the facts about lead and drinking water? Because unhealthy amounts of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for (insert free or \$ per sample). You can contact the (insert the name of the city or water system) for information on testing and on simple ways to reduce your exposure to lead in drinking water."

(2) "To have your water tested for lead, or to get more information about this public health concern, please call (insert the phone number of the city water system)."

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93.

**17-551.850 Supplemental Monitoring; Additional Notification of Results.**

(1) A system that fails to meet the lead action level on the basis of tap samples collected in accordance with Section 17-551.450, F.A.C., shall offer to arrange for the sampling of the tap water of any customer who requests it.

17-551.820(3)(cont'd.) - 17-551.850(1)

(2) The system is not required to collect and analyze the sample itself, nor to pay for collecting or analyzing the sample.

(3) All systems shall, within 60 days, notify the customer by letter when results of routine or supplemental tap monitoring for lead or copper exceed the action level at that customer's tap. The letter shall include a copy of the testing results. Systems may include additional language to explain the results and educate the customer.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

#### PART IX REPORTING REQUIREMENTS AND INSTRUCTIONS

**17-551.900 Reporting Requirements for Tap Monitoring for Lead and Copper and for Water Quality Parameter Monitoring.** All systems shall report all of the following information to the Department. All lead and copper levels measured between the practical quantitation level and the method detection limit must be either reported as measured or they can be reported as one-half the practical quantitation level (0.0025 milligrams per liter for lead and 0.025 milligrams per liter for copper). All lead and copper levels below the respective method detection limit must be reported as zero.

(1) A system shall submit a Lead and Copper Tap Sampling Plan to the Department for review 30 days prior to the applicable date for the start of initial sampling. A system shall summarize its sampling plan, records review and materials survey using Form 17-551.950(1). Each system which does not complete its targeted sampling pool with tier 1 sampling sites meeting the criteria in Rule 17-551.410(2)(a), (b), or (c), F.A.C., shall fill out the information summary specified in Part VII of Form 17-551.950(1), justifying its selection of tier 2, tier 3 or tier 4 sampling sites as specified in Rule 17-551.410(4), F.A.C.

(2) A system shall submit a Water Quality Parameter Sampling Plan for source water and its distribution system 30 days prior to initial sampling using Parts V and VI of Form 17-551.950(1), together with a written narrative in support of its plan in accordance with Section 17-551.460, F.A.C.

17-551.850(2) - 17-551.900(2)



(3) A system shall report the information specified below for all tap samples within the first 10 days following the end of each applicable monitoring period: every six-months, annually, or every 3 years.

(a) The results of all tap samples for lead and copper in a format specified in Rule 17-551.951(1), F.A.C.

(b) If a system reports less than the minimum number of samples required in Rule 17-551.540(3), F.A.C., it must certify in writing that it has sampled all available taps.

(c) A certification, using Form 17-551.950(2), that each first draw sample collected by the system was one-liter in volume and, to the best of their knowledge, stood motionless in the service line, or in the interior plumbing of a sampling site, for a least six hours.

(d) Where residents collected samples, a certification, using Form 17-551.950(3), that each tap sample collected by the residents was taken after the system informed them of proper sampling procedures specified in Rules 17-551.430(1), through (5), F.A.C.

(e) Using the format specified in Rule 17-551.951(1), F.A.C., the 90th percentile lead and copper concentrations measured from among all lead and copper tap samples collected during each monitoring period, calculated in accordance with Section 17-551.310, F.A.C.

(f) With the exception of initial tap sampling for lead and copper, the system shall identify any site which was not sampled during previous monitoring periods, and include an explanation of why sampling sites have changed.

(g) Using a format specified in Rule 17-551.951(3), F.A.C., the results of all tap and entry point samples for pH, and where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected as required by Section 17-551.470, F.A.C.

(4) By the applicable date in Rule 17-551.450(1)(a), F.A.C., for commencement of monitoring, each system with lead service lines that is not able to locate the number of sites served by such lines shall send a letter to the Department demonstrating why it was unable to locate a sufficient number of such sites based upon searching for the information listed in Rule 17-551.420(2), F.A.C.

(5) Each system requesting a reduction in the number and frequency of sampling shall provide the information required by Rule 17-551.450(5), F.A.C.

Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

17-551.900(3) - 17-551.900(History)

#### 17-551.910 Source Water Monitoring and Treatment Reporting Requirements.

(1) A system shall report the sampling results for all source water samples collected in accordance with Section 17-551.600, F.A.C., within the first 10 days following the end of each source water monitoring period: annually or per compliance period. Samples taken pursuant to Rules 17-551.600(2), and (3), shall be reported using the format specified in Rule 17-551.951(2), F.A.C.

(2) With the exception of the first round of source water sampling conducted pursuant to Rule 17-551.600(2), F.A.C., the system shall specify any site which was not sampled during previous monitoring periods, and include an explanation of why the sampling point has changed.

(3) Source water treatment reporting requirements. By the applicable dates in Rule 17-551.610(1), F.A.C., systems shall provide the following information to the Department:

(a) if required by Rule 17-551.610(2), F.A.C., their recommendation regarding source water treatment;

(b) for systems required to install source water treatment by Rule 17-551.610 F.A.C., a letter certifying that the system has completed installing the treatment approved by the Department within 24 months after the Department approves the treatment.

Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

#### 17-551.920 Corrosion Control Treatment Reporting Requirements. By the applicable dates specified in Rules 17-551.320(2), and 17-551.330(3), F.A.C., systems shall report the following information:

(1) for systems demonstrating that they have already optimized corrosion control, information required in Rule 17-551.510(8), F.A.C.

(2) for systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment required by Rule 17-551.510(7), F.A.C.

(3) for systems required to evaluate the effectiveness of corrosion control treatment, the information required by Rule 17-551.540(1), F.A.C.

Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93.

17-551.910(1) - 17-551.920(History)



**17-551.930 Lead Service Line Replacement Reporting Requirements.** Systems shall report the following to the Department to demonstrate compliance with Section 17-551.700, F.A.C.:

(1) Within 12 months after a system exceeds the lead action level in tap sampling taken pursuant to Rule 17-551.450(2), or Rule 17-551.450(3), F.A.C., whichever comes later, it shall provide the Department with a written report, using Form 17-551.950(5), that identifies the lead service lines replaced in the previous 12 months and a schedule for continuing to replace lead service lines in compliance with Rules 17-551.710(2) or (3), F.A.C.

(2) Within 12 months after a system exceeds the lead action level in sampling referred to in Rule 17-551.450(2), F.A.C., or Rule 17-551.450(3), F.A.C., whichever comes later, and every 12 months thereafter, the system shall demonstrate to the Department in writing, using Form 17-551.950(5), that the system has either:

(a) during the previous 12 months, replaced lead service lines in compliance with the schedule prepared pursuant to Rule 17-551.710(2), or (3), F.A.C., or  
(b) conducted sampling which demonstrates that the lead concentration in all service line samples from an individual line(s), taken pursuant to Rule 17-551.430(5), F.A.C., is less than or equal to 0.015 milligrams per liter.

(3) The annual letter submitted to the Department under subsection (2) shall contain the following information:

(a) the number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule;

(b) the number and location of each lead service line replaced during the previous year of the system's replacement schedule;

(c) if measured, the lead concentration in the water and location of each lead service line sampled, the sampling method, and the date of sampling.

(4) As soon as practicable, but in no case later than three months after a system exceeds the lead action level in sampling referred to in Rule 17-551.450(2), or Rule 17-551.450(3), F.A.C., whichever comes later, any system seeking to rebut the presumption that it has control over the entire lead service line shall submit a letter to the Department describing the legal authority (e.g., state statutes, municipal ordinances, public service contracts or other applicable legal authority) which limits the system's control over the service lines and the extent of the system's control. The Department shall review the information supplied by the system and shall determine

17-551.930 - 17-551.930(4)

whether the system controls less than the entire service line. The Department's determination shall be in writing and shall explain the basis for its decision. A water system is considered to control the entire lead service line up to the building inlet if the system has control over the entire line, which is shown by any of the following: authority to set standards for construction, repair, or maintenance of the line; authority to replace, repair, or maintain the line; or ownership of the line.

Specific Authority 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

**17-551.940 Public Education Program Reporting Requirements.**

(1) By December 31st of each year, a system that is subject to the public education requirements in Rule 17-551.800, F.A.C., shall submit a letter, using Form 17-551.950(6), to the Department demonstrating that the system has delivered the public education materials that meet the content requirements in Sections 17-551.830 and 17-551.840, F.A.C., and the delivery requirements in Section 17-551.810, F.A.C. This information shall include a list of all the newspapers, radio stations, television stations, facilities and organizations to which the system delivered public education materials during the previous year. The system shall submit the letter required by this subsection annually for as long as it exceeds the lead or copper action levels.

(2) Reporting of additional monitoring data. A system which collects sampling data in addition to that required by this chapter shall report the results, using the format specified in Rule 17-551.951(1), F.A.C., to the Department by the end of the applicable monitoring periods during which the samples are collected.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

**17-551.950 Forms and Instructions for the Control of Lead and Copper.** The forms and instructions used by the Department to administer this chapter are hereby adopted and incorporated by reference and are listed in Rules 17-551.950 and 17-555.910(1), F.A.C. Each form is listed by rule number, which is also the form number, and with the title and effective date. Copies of these forms and instructions may be obtained by writing to the Division of Administrative Services, Information Center, Department of Environmental

17-551.930(4) (cont'd.) - 17-551.950



Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. In addition, these forms are available at the Department's District offices as described in Rule 17-101.050, F.A.C.

(1) Sampling Plan for Lead and Copper Tap Samples and Water Quality Parameters, July 4, 1993.

(2) Certification of Lead and Copper Tap Sample Collection Methods, July 4, 1993.

(3) Certification of Training for Homeowners Collecting Tap Samples, July 4, 1993.

(4) Request for Reduced Lead and Copper and Water Quality Parameter Tap Sampling, July 4, 1993.

(5) Lead Service Line Replacement and Sampling Demonstration Summary, July 4, 1993.

(6) Public Education Program Report, July 4, 1993.

Specific Authority: 120.53(1), 403.861(9), F.S.

Law Implemented: 120.53(1), 403.853, F.S.

History: New 01-01-93, Amended 7-4-93.

**17-551.951 Reporting Formats for the Control of Lead and Copper.** Analytical results for samples taken pursuant to this chapter shall be reported in a format which includes all of the required information described below. If laboratory analysis reports are submitted without all of the required information, as set forth below, the submittal will be rejected.

(1) Lead and copper tap samples. The information submitted by the certified laboratory for the analysis of lead and copper tap samples shall include, at a minimum:

(a) System name.

(b) Public water system identification number.

(c) Laboratory name. The complete unabbreviated laboratory name is required. If the analytical work was subcontracted out to another certified laboratory, the subcontracting laboratory name shall also be included.

(d) Laboratory certification number. The correct five digit laboratory certification number as assigned by the Department of Health and Rehabilitative Services shall be clearly identified for the services provided. Any subcontracting laboratory's certification number shall also be submitted for the services provided.

(e) Contact person. Name and title of the laboratory contact person.

(f) Telephone number.

(g) Date samples were submitted to the laboratory.

(h) Analysis date.

(i) Analytical method used.

(j) Method detection limit.

17-551.950(cont'd.) - 17-551.951(1)(j)

(k) Specify whether the sample is part of the minimum number of samples selected under Rule 17-551.440(1), F.A.C., or is an ADDITIONAL sample taken under Rule 17-551.450(6), F.A.C.

(l) Specify the rank of the sample result for lead or copper and list results in ascending order pursuant to Rule 17-551.310(1), F.A.C.

(m) Specify the location code of the sample. This number is the same as that reported on Form 17-551.950(1). It is a three digit identification number followed by the tier number of the site.

(n) The laboratory sample identification number.

(o) The date the site was sampled.

(p) The concentration of lead or copper in milligrams per liter.

(q) The 90th percentile value of lead or copper.

(2) Lead and Copper Source Water and Lead Service Line Samples. Certified laboratories shall report in the format specified in Rule 17-550.730(2)(a), F.A.C., when reporting the results for lead or copper source water samples or lead service line samples.

(3) Reporting Formats for Water Quality Parameter. The results submitted by systems for the analysis of water quality parameters required under Rule 17-551.460, F.A.C., shall be reported in the following format:

(a) Format header.

1. System name.

2. System type.

3. Public water system identification number.

4. Name of system contact person.

5. Contact telephone number.

6. Population interval letter value.

7. Monitoring period dates.

8. Water quality parameter sampling round value which will be either the first or second sampling round of the reported sampling period.

9. The number of sampling sites required by Rule 17-551.460, F.A.C.

10. The number of sites reported.

(b) Format table.

1. Each sampling site location identification number corresponding to the identification number reported in Part VI of Form 17-551.950(1), F.A.C.

2. The sampling date for each reported sample.

3. The measured value of the water quality parameters and dosage rates required to be analyzed under Rule 17-551.470(3), F.A.C.

17-551.951(1)(k) - 17-551.950(3)(b)3.



1993

CONTROL OF LEAD AND COPPER

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(c) The format footer shall include the analytical method for each water quality parameter.

Specific Authority: 403.861(9), F.S.

Law Implemented: 403.853, F.S.

History: New 7-4-93.

17-551.950(3)(c) - 17-551.950(History)

7-4-93



1672

I HAVE CHECKED TO VERIFY THAT  
ALL WHO HAVE REQUESTED COPIES  
CONCERNING THIS PROJECT ARE  
CC'd ON THE ATTACHED.

Blanca, O.H. to be  
issued 6/9/80



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207  
904/798-4200



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

ERNEST E. FREY  
DISTRICT MANAGER  
GARY L. SHAFFER  
ASSISTANT DISTRICT MANAGER

NOTICE OF PERMIT

Mr. Bill Blackwell, Owner  
242 Village  
Post Office Box 3264  
Lake City, Florida 32056

*New Owner Sack Espenship*  
*1-14-94*  
*egf*

Dear Blackwell:

Columbia County - Potable Water  
242 Village Water Treatment and Distribution System

Enclosed is Permit Number WC12-147558, dated April 19, 1988, to construct a water treatment and distribution system, issued pursuant to Section 403.087, Florida Statutes (F.S.).

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, F.S., to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5.201, Florida Administrative Code (FAC), and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of receipt of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, F.S. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, FAC. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair

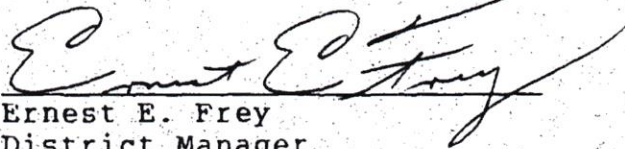


Mr. Bill Blackwell  
Permit No. WC12-147558  
Page Two

Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Ernest E. Frey  
District Manager

EEF:rlr

Copies furnished to: Issam S. Akly, P.E.  
Columbia County Health Department

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on April 25, 1988 to the listed persons.

**FILING AND ACKNOWLEDGEMENT**  
FILED, on this date, pursuant to §120.52 Florida  
Statutes, with the designated Department Clerk,  
receipt of which is hereby acknowledged.  
Debra Richards 04/25/88  
Clerk Date



STATE OF FLORIDA  
**DEPARTMENT OF ENVIRONMENTAL REGULATION**

**NORTHEAST DISTRICT**

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207  
904/798-4200



BOB MARTINEZ  
GOVERNOR

DALE TWACHTMANN  
SECRETARY

ERNEST E. FREY  
DISTRICT MANAGER

GARY L. SHAFFER  
ASSISTANT DISTRICT MANAGER

**PERMITTEE:**

Mr. Bill Blackwell, Owner  
242 Village  
Post Office Box 3264  
Lake City, Florida 32056

**I.D. Number:**

Permit/Cert Number: WC12-147558

Date of Issue: April 19, 1988

Expiration Date: April 19, 1989

County: Columbia

Lat/Long: 30° 06' 36"N/82° 37' 36"W

Section/Township/Range:

Project: 242 Village Water Treatment and  
Distribution System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-22. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To construct a water treatment system to serve the 242 Village. The system will consist of two wells 150 feet deep at 45 GPM (each), a 1,000 gallon hydropneumatic tank and a Stenner Liquid Chlorinator System and a water transmission distribution system to serve 84 equivalent residential connections (design population).



PERMITTEE:

Mr. Bill Blackwell, Owner  
242 Village

I.D. Number:

Permit/Cert Number: WC12-147558

Date of Issue: April 19, 1988

Expiration Date: April 19, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants, or representatives.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the department.
6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:



PERMITTEE:

Mr. Bill Blackwell, Owner  
242 Village

I.D. Number:

Permit/Cert Number: WC12-147558

Date of Issue: April 19, 1988

Expiration Date: April 19, 1989

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with, or will be unable to comply with, any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.
10. The permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.
12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.



PERMITTEE:

Mr. Bill Blackwell, Owner  
242 Village

I.D. Number:

Permit/Cert Number: WC12-147558  
Date of Issue: April 19, 1988  
Expiration Date: April 19, 1989

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Certification of Compliance with State Water Quality Standards  
(Section 401, PL 92-500)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.
- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
  - the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the Department, the permittee shall, within a reasonable period of time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.



PERMITTEE:

Mr. Bill Blackwell, Owner  
242 Village

I.D. Number:

Permit Number: WC12-147558

Date of Issue: April 19, 1988

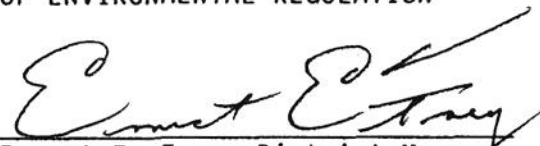
Expiration Date: April 19, 1989

SPECIFIC CONDITIONS:

1. This approval is given with the understanding that upon the installation of such works its operations shall be placed under the care of a competent person, whose qualifications are approved by the Department and the operation shall be carried out according to best accepted practice and in accordance with the requirements of the rules and regulations of the Department. This includes not only the provision of continuing essential funds for operation and maintenance of chemical supplies for plant operation; but also the funds for maintenance of equipment and supplying the needs of a suitable water plant laboratory which is required for proper operation of this water treatment facility.
2. Water supply facilities including mains shall be installed, cleaned, disinfected and bacteriologically cleared for service; in accordance with the latest applicable AWWA Standards and Department rules and regulations.
3. Where water and sewer mains cross with less than 18" vertical clearance, the sewer will be 20 ft. of either cast iron pipe or concrete encased vitrified clay pipe, centered on the point of crossing. When a water main parallels a sewer main, a separation of at least 10 ft. should be maintained where practical.
4. Certification as to construction of this project in accordance with the approved plans by a Florida Registered Professional Engineer together with satisfactory bacteriological analyses shall be provided and a letter of clearance obtained from this Agency before placing these facilities in service.
5. All PVC pipe shall bear the National Sanitation Foundation (NSF) seal of approval for potable water pipe.
6. Prior to placing the new system into service, the Permittee shall supply the Department with:
  - A. Twenty satisfactory bacteriological analyses for the clearance of both of the wells.
  - B. A copy of each well completion report.

Issued this 19th day of April, 1988.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Ernest E. Frey, District Manager



CERTIFICATION

Project Name 242 Village Water Treatment and  
Application No. WC12-147358 Distribution System

I HEREBY CERTIFY that the engineering features described in the referenced application [~~provide/~~~~do not provide~~] reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

James M. Durr  
NAME, P.E.





STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207  
904/798-4200



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

ERNEST E. FREY  
DISTRICT MANAGER  
GARY L. SHAFFER  
ASSISTANT DISTRICT MANAGER

April 19, 1988

Mr. Issam S. Akly, P.E.  
Post Office Box 7164  
Gainesville, Florida 32605

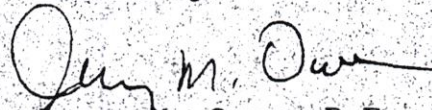
Dear Mr. Akly:

Columbia County - Potable Water  
242 Village Water Treatment and Distribution System  
Permit No. WC12-147558

Enclosed is the Department's permit to construct the subject water supply source. We would like to call your attention to Specific Condition Number 4 which requires the submittal of a letter of completion of construction and satisfactory bacteriological analyses pursuant to Section 17-22.107(2), Florida Administrative Code.

In order to facilitate the Department's approval for placing completed facilities into service, we are requesting that the bacteriological analyses (and chemical analyses when required), be attached to your letter of certification of completion. Also, your certification letter should list any deviations from approved plans, specifications, and specific conditions of the permit.

Sincerely,

  
Jerry M. Owen, P.E.

JMO:dr

Enclosure



# PROPOSED 242 VILLAGE WTP

## PROPOSED:

2 WELLS @ 3 HP @ 45 GPM, 150' DEEP & 4" SIZE OF CAS  
2"  $\phi$

LIQUID CHLORINE - STENNER - NO OTHER DATA AVAILABLE

1000 gal PRESSURE TANK; SIGHT GLASS o.k., PRESS. RELIEF VALVE<sup>o.k.</sup>,  
PRESSURE GAUGE: o.k., SAMPLE POINT: o.k.

ALL LINES DEAD END

36 HOMES  $\times 3.5$  PEOPLE/HOME  $\times 100$  gal/Pd = 12,600 GPD  
 $\approx 36$  EXCS

.1296 MG

WELL SUPPLY:  $2 \times 45$  GPM =  $\frac{90 \text{ GPM}}{.55 \text{ GPM/KWH}} = 163 \text{ EXCS. TOWN}$

WELL PERMIT: o.k.

CONCRETE PAD: o.k.

CHECK VALVE IN WELL / SAMPLING TAP = o.k.

WELL PUMP: ?

METER ON WELL: ?

METER AFTER PRESS. TANK: o.k.

WELL LOG: NO

CHEM. ANALYSIS: o.k.

BACT. ANALYSIS: NO

DETAILS ON CHLORINATION: NO

FINE SUPPLY: NO





HALL'S PUMP & WELL SERVICE  
1724 N. FIRST ST. 904-752-1854  
LAKE CITY, FL 32055


63-64/E

PAY  
AMOUNT  
OF

Amount of \$ 2000.00

DOLLARS

CHECK  
AMOUNT

DATE	TO THE ORDER OF	REFERENCE	GROSS AMOUNT	DISCOUNT	CHECK NUMBER
4-4	Department of Environmental Regulation				5187

\$ 2000

COLUMBIA COUNTY BANK  
LAKE CITY, FLORIDA 32055

Mary L. Hall

DELINQ

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 120089

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Hall's Pump & Well Service Date April 4, 1988

Address 1724 N. First St Lake City FL 32055 Dollars \$ 20.00

Applicant Name & Address Bill Blackwell PO Box 3264 Lake City FL 32055

Source of Revenue Hall's Pump & Well Service

Revenue Code 001039-5187 Application Number WC12-147558

By Irma Donaldson

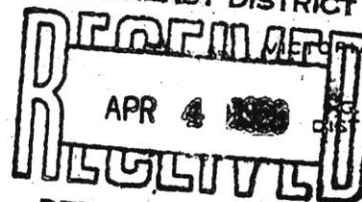


## DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207

NORTHEAST DISTRICT



DER-JACKSONVILLE

BOB GRAHAM  
GOVERNORJ. TSCHINKEL  
SECRETARYDOUG DUTTON  
DISTRICT MANAGER

## APPLICATION TO CONSTRUCT A PUBLIC DRINKING WATER SYSTEM

INSTRUCTIONS: All of the application forms, including engineering plans and specifications, must be completed and submitted. For construction of facilities consisting solely of pumping and disinfection, Parts A, B, C, D, and E 1 and 2, (d) through (f), as well as engineering plans and specifications, must be completed and submitted. When using this form for distribution systems alone, only Part B and applicable sections of Part A need to be completed. Submission of any false statement or representation in this application is a violation of the law. Attach additional sheets as necessary.

242 Village  
System Name: \_\_\_\_\_ County: Columbia  
System Address: Street \_\_\_\_\_ County Road No. 242 City: Lake City, FL  
Applicant's Name and Title: Bill Blackwell, Owner  
Applicant's Address: P.O. Box 3264, Lake City, FL  
Utility Supplying Water: Name: N/A  
Utility Address: N/A  
Owner/Operator After Construction, if different: Brady Brinkley, Cert. #2783  
Owner/Operator Address: P.O. Box 1675, Lake City, FL 32056  
Type of Proposed Facility: Public Water System To Serve: Subdivision  
(Subdivision, trailer park, school, etc.)  
Latitude 30.06,36 "N Longitude 82.37,36 "W

## A. Applicant:

I, the owner/authorized representative\* of 242 VILLAGE WATER SYSTEM am fully aware that the statements made in this application for a permit to construct a PUBLIC WATER SYSTEM are true, correct and complete to the best of my knowledge and belief. Further, the undersigned agrees to maintain and operate the facility in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules of the department. The undersigned also understands that a permit, if granted by the department, will be non-transferable and will promptly notify the department upon sale or legal transfer of the permitted facility. The undersigned also accepts responsibility for retaining the project engineer as indicated on this application to observe that construction of the project is in accordance with engineering plans as submitted.

\*Attach letter of authorization.

Signed: Bill Blackwell  
Owner/Authorized Representative

Bill Blackwell  
Name and Title (Please type)

Date: 3/31/88 Telephone No. 755-5428



B. Owner/Authorized Representative of Utility Supplying Water (if applicable)

The undersigned, owner/authorized representative\* of \_\_\_\_\_ hereby certifies that the above reference utility has adequate reserve capacity to supply water to this project and will provide the necessary treatment as required by Chapter 403, Florida Statutes, and all rules of the department. Further, the undersigned verifies that his treatment plant was constructed under a valid permit, Number \_\_\_\_\_ dated \_\_\_\_\_ issued by the department, and the connection of the proposed project will not be in violation of any condition of said permit.

\*Attach letter of authorization

Signed: \_\_\_\_\_

\_\_\_\_\_  
Name and Title (Please Type)

Date: \_\_\_\_\_ Phone No.: \_\_\_\_\_

C. Owner/Operator\* After Construction (if different from applicant)

I, the undersigned, do certify that I will become the owner/operator of the proposed facility after construction. Further, I certify that I am fully aware that the statements made in this application are true, correct and complete to the best of my knowledge. Also, I agree to operate and maintain the facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all rules of the department. I understand the permit is non-transferable and will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: \_\_\_\_\_

\_\_\_\_\_  
Name and Title (Please Type)

Date: \_\_\_\_\_ Phone No. \_\_\_\_\_

D. Professional Engineer Registered in Florida

This is to certify that the engineering features of this public drinking water system have been designed/examined by me and found to be in conformity with modern engineering principles, applicable to the treatment and distribution of drinking water characterized in this application. There is reasonable assurance in my professional judgment that the facility, when constructed as planned and properly maintained and operated, will comply with all applicable statutes of the State of Florida and the rules of the department.

Signed: ISSAM S. AKLY

ISSAM S. AKLY  
Name (Please Type)

\_\_\_\_\_  
Company Name (Please Type)

P.O. BOX 7164, Gainesville, FL 32605  
Mailing Address (Please Type)

Florida Registration No. 35125 Date: 4/3/88 Phone No. 372-7824



PART A - GENERAL

1. Estimated total cost of project \$16,000.00 Describe all water treatment Liquid Chlorine injected into pressure tank by Stenner injection pump.
2. Existing plant capacity (MGD) N/A Plant capacity increase (MGD) N/A
3. Previous DER permit number(s), if any N/A
4. Present population of area served -0- Per capita consumption -0-
5. Design population (additional served by this project) 84
6. Total ERC's\* served 84 Total ERC's approved N/A  
Additional ERC's N/A [ERC (Equivalent Residential Connection) = 3.5 persons]  
None
7. Give any industrial users of abnormal demands None
8. Current system water demand, in MGD (from plant operation report)  
Average day 0.01 Maximum day 0.03 Maximum hour (GPM) 45  
Additional water demand, MGD: Avg. day N/A Max. day N/A Max. Hr. (GPM) N/A
9. Is plant designed for 24-hour operation or what portion? Yes
10. Give characteristics of raw water (attach chemical analysis)
11. Give source proposed water (deep well, shallow well, spring, surface) Deep-Well
12. Sewage disposal Individual Septic Systems  
(Name and Address of sewerage utility)
13. Finished water storage: Elevated No Ground 1000 Gal  
Existing Capacity N/A Capacity Increase N/A
14. Existing service pump capacity (MGD) N/A Additional service pump cap. (MGD) N/A
15. Static head in relation to pumping plant
16. Well permit from water management district? Yes X Permit No. 27056, 27057  
No  Explain

PART B - DISTRIBUTION SYSTEM

1. Interconnection with other system None
2. Minimum size pipe 2" Maximum size pipe 3" Minimum system pressure 30 PSI  
Maximum system pressure 50 PSI
3. Is fire control provided in design? NO
4. Describe dead-end conditions and necessity for flushing including number of such conditions and flushing schedule Monthly or after maintenance repairs, Blow-Off at each dead end line.



5. Describe cross-connection control program All lines dead end
6. Describe corrosion control program as necessary Use of Non Corrosive Materials
7. Water demand for additional connections (MGD) N/A
8. Number of each type of additional connections (residential, commercial, agricultural, industrial) to be served 24 Res.

#### PART C - WELL SUPPLY

##### Existing Wells

Well Identification	N/A							
Size of Casing	"							
Depth of Casing	"							
Depth of Well	"							
Pump (type)	"							
Pump Capacity (GPM)	"							

##### Proposed Wells

Well Identification	1	2						
Size of Casing	4"	4"						
Depth of Casing	105'	105'						
Depth of Well	150'	150'						
Pump (type)	3 HP TIAT	3 HP TIAT						
Pump Capacity (GPM)	45	45						

Type of well construction 4" casing with pressure grout for entire length

Casing material steel Aquifer \_\_\_\_\_

Give all geological data, including log of test wells or wells in vicinity.

Describe possible sources of contamination (particularly those within 100' of well).

#### PART D - SURFACE SUPPLIES

1. Name of stream, lake, or pond N/A
2. Show by attached map watershed, towns or communities above intake, industrial plants, and in immediate vicinity, farm house, picnic ground, abattoirs and other sources of pollution, with distance from intake. Locate intake on map.



3. Size of watershed in square miles N/A  
 Est. Min. dry-weather flow intake "  
 4. Basis of min. dry-weather flow estimate "

5.	Existing Raw Water Pumps			Proposed Raw Water Pumps		
Type	N/A			N/A		
Capacity						
Suction Head						
Discharge Head						

#### PART E - TREATMENT PLANT

1. Type of treatment:

- a) Pumping and disinfection X b) Conventional floc and settling N/A  
 c) Upflow N/A d) Demineralization (type) N/A e) Other N/A

2. Design details:

- a) Emergency intake N/A bypass of raw water N/A"  
 b) Aeration: type N/A max. design rate N/A detention N/A  
 orifices N/A number of trays N/A loss of head N/A  
 c) Service pumps: existing (no. & cap.) N/A  
 proposed (no. & cap.) N/A  
 d) Disinfection: type disinfectant Liquid Chlorine  
 type, make, capacity and number of feeders Stenner 1 req'd  
 e) Auxiliary power None  
 f) Metering device and location Master Meter at tank discharge  
 g) Mixing chamber (conventional): type Inject chlorine into pressure tank  
 dimensions N/A capacity N/A detention N/A  
 velocity (at maximum design rate) N/A Allowable head: total N/A  
 per baffle N/A Mechanical agitator: size blade N/A  
 motor N/A peripheral speed N/A bypass N/A  
 drainage 2" tank drain  
 h) Coagulating basins (conventional): N/A



capacity N/A detention time at maximum plant capacity N/A  
velocity N/A capacity of each compartment N/A

Distribution flow: inlet devices N/A outlet devices N/A

i) Suspended solids contact units (upflow) N/A

Process	Diameter	Capacity	Upflow rate	Detention period	Overflow Rate
Softening	<u>N/A</u>	<u>n/a</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Clarification	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Remarks: \_\_\_\_\_

j) Chemical dosing devices (other type disinfecting):

Number of machines and type feeding: Alum N/A Lime N/A

coagulant aid (Name) N/A Activated Carbon M/A

recarbonation N/A

number and size of solution tanks N/A

points of application N/A

size and kind of piping N/A

k) Filter units:

type, material, number units N/A

areas, dimensions, capacity of each unit and for total plant N/A

wash troughs, number and shape N/A

dimensions and distance above sand (top trough and top sand) N/A

spacing (center to center) N/A

max. travel suspended particles N/A

filtering material: gravel (depth & size) N/A

sand or other media (specify) N/A

depth of bed N/A mean effective size (in mm.) N/A

uniformity coefficient N/A

filter bottom: type N/A

ratio total area of perforations to sand area N/A



laterals: size and spacing on manifold N/A  
perforations: size and spacing on laterals N/A  
on manifold N/A  
ratio: total area perforations to total cross-sectional area of laterals N/A  
manifold size and cross-sectional area N/A  
backwash pump(s): type and design rate N/A  
depth water on sand: maximum N/A minimum N/A average N/A  
wash tank capacity N/A  
Appurtenances: loss of head gauges N/A rate of flow gauges N/A  
rate controllers N/A  
Clear well: location N/A capacity N/A dimensions N/A  
l) Laboratory: room and bench space (areas) N/A  
scope of tests provided for N/A  
m) Bypass to plant N/A emergency intake N/A  
n) List type and capacities of emergency well and service pumping units N/A  

---

o) Attach schematic diagram, plans and specifications showing pump(s), pipe sizes, valves, etc.





# A.B.C. Research

p. o. box 1557 • gainesville, florida 32602 • phone 904-372-0436 • telex • 4930 335

Report No. 014497  
Subject: 242 VILLAGE WELL #1 3/23/88  
Received: Thu Mar 24, 1988

Date Wed Mar 30, 1988

DHRS/DER #82135, E82031

HALL'S PUMP & WELL SERVICE  
1724 NORTH 1ST ST  
LAKE CITY, FL  
32055

SUPERCEEDS MAR 28, 1988 REPORT

## RESULTS OF ANALYSIS

88:14497-01 242 VILLAGE WELL #1 3/23/88  
Lead (AAS) 0.011 PPM  
Iron (AAS) <0.10 PPM

Respectfully submitted for A.B.C. Research

BY Karen Hatfield

Karen Hatfield  
Manager Environmental Chemistry





Report No. 013541  
Subject: 242 VILLAGE SUB-DIVISION 2/8/88  
Received: Mon Feb 08, 1988

Date Mon Mar 28, 1988

DHRS/DER #82135, E82031

HALL'S PUMP & WELL SERVICE  
1724 NORTH 1ST ST  
LAKE CITY, FL  
32055

## RESULTS OF ANALYSIS

88:13541-01 242 VILLAGE SUB-DIVISION WELL #1

SOC/VOC Testins	See Report
Methoxychlor	<1.0 PPb
Endrin	<.20 PPb
Lindane	<1.0 PPb
Toxaphene	<1.0 PPb
2,4-D	<1.0 PPb
2,4,5-TP	<1.0 PPb
Gross Alpha	1.6 +/- 1.4 pCi/l
Arsenic	3.2 PPb
Barium	<0.10 PPM
Cadmium (AAS)	<0.003 PPM
Chromium	<0.020 PPM
Lead (AAS)	0.11 PPM - SEE NEW ANALYSIS DATED MAR 30 1988
Mercury	<0.5 PPb
Selenium	<2.0 PPb
Silver (AAS)	<0.010 PPM
Sodium	9.9 PPM
Nitrate nitrogen	0.59 mg/l as N
Flouride in water	0.28 PPM
Turbidity	0.51 NTU's
Chloride	4.3 mg/l
Color - water	<5 Color units
Copper (AAS)	0.40 PPM
Corrosivity	-0.23 LSI #
Total alkalinity	100 CaCO3 mg/l
PH	7.8 PH units
Dissolved solids	240 mg/l
Calcium (AAS)	35 PPM
Surfactants	0.036 mg/l as MBAS
Iron (AAS)	0.37 PPM - SEE NEW ANALYSIS DATED MAR 1988
Manganese (AAS)	0.013 PPM
Odor	<1 T.O.N.
Sulfate	5.5 mg/l
Zinc	1.5 PPM

Respectfully submitted for A.B.C. Research

By Karen Hatfield

Karen Hatfield





# ABC Research

p. o. box 1557 • gainesville, florida 32602 • phone 904-372-0436 • telex • 4930 335

CUSTOMER  
SAMPLE/LOCATION

Halls Pump & Well Service  
242 Village Subdivision  
C. Rd. 242 Well # 1

ABC #1354-01  
DATE 2/10/88

## RESULTS OF ANALYSIS

## SOC/VOC

PAGE 1 OF 3

### VOLATILE ORGANICS

### DETECTION LIMIT ug/L (DL)

### RESULT ug/L

1. Trichloroethylene	1	<DL
2. Tetrachloroethylene	1	<DL
3. Carbon Tetrachloride	1	<DL
4. Vinyl Chloride	1	<DL
5. 1,1,1-Trichloroethane	1	<DL
6. 1,2-Dichloroethane	1	<DL
7. Benzene	1	<DL
8. Ethylene dibromide	0.02	<DL

### PURGEABLES

1. Acrolein	50	<DL
2. Acrylonitrile	50	<DL
3. Bromodichloromethane	1	<DL
4. Bromoform	1	<DL
5. Bromomethane	1	<DL
6. Chlorobenzene	1	<DL
7. Chloroethane	1	<DL
8. 2-Chloroethylvinyl ether	1	<DL
9. Chloroform	1	<DL
10. Chloromethane	1	<DL
11. Dibromochloromethane	1	<DL
12. Dichlorodifluoromethane	1	<DL
13. 1,1-Dichloroethane	1	<DL
14. 1,1-Dichloroethene	1	<DL
15. trans-1,3-Dichloropropene	1	<DL
16. 1,2-Dichloroethene	1	<DL
17. 1,2-Dichloropropane	1	<DL
18. cis-1,3-Dichloropropene	1	<DL
19. Ethyl benzene	1	<DL
20. Methylene chloride	10	<DL
21. 1,1,2-Trichloroethane	1	<DL
22. Trichlorofluoromethane	1	<DL
23. Toluene	2	<DL
24. Xylene	1	<DL
25. Styrene	1	<DL
26. Dichlorobenzene	1	<DL
27. 1,2-Dibromo-3-chloropropane	1	<DL
28. 1,1,2,2-Tetrachloroethane	1	<DL

Respectfully submitted for A.B.C. Research by

*Karen Hatfield*  
-----  
Karen Hatfield





CUSTOMER Halls Pump & Well Service  
 SAMPLE/LOCATION 242 Village Subdivision County Rd. 242 Well 1  
 ABC # 13541-01  
 DATE 3/25/88

PAGE 2 of 3

BASE NEUTRALS	DETECTION LIMIT (DL) ug/L	RESULT ug/L
1. Acenaphthene	5	<DL
2. Acenaphthylene	5	<DL
3. Anthracene	5	<DL
4. Benzo (a) anthracene	5	<DL
5. Benzo (b) fluoranthene	5	<DL
6. Benzo (k) fluoranthene	5	<DL
7. Benzo (a) pyrene	5	<DL
8. Benzo (g,h,i)perylene	5	<DL
9. Benzidene	50	<DL
10. Bis (2-chloroethyl) ether	5	<DL
11. Bis (2-chloroethoxy) methane	5	<DL
12. Bis (2-ethylhexyl) phthalate	10	<DL
13. Bis (2-chloroisopropyl) ether	5	<DL
14. 4-Bromophenyl phenyl ether	5	<DL
15. Butyl benzyl phthalate	10	<DL
16. 2-Chloronaphthalene	5	<DL
17. 4-Chlorophenyl phenyl ether	5	<DL
18. Chrysene	5	<DL
19. Dibenzo (a,h) anthracene	5	<DL
20. Di-n-butylphthalate	10	<DL
21. 1,3 Dichlorobenzene	5	<DL
22. 1,4 Dichlorobenzene	5	<DL
23. 1,2 Dichlorobenzene	5	<DL
24. 3,3 Dichlorobenzidene	20	<DL
25. Diethylphthalate	10	<DL
26. Dimethylphthalate	10	<DL
27. 2,4 Dinitrotoluene	5	<DL
28. 2,6 Dinitrotoluene	5	<DL
29. Dioctylphthalate	10	<DL
30. 1,2 Diphenylhydrazine	5	<DL
31. Fluoranthene	5	<DL
32. Flourene	5	<DL
33. Hexachlorobenzene	5	<DL
34. Hexachlorobutadiene	5	<DL
35. Hexachloroethane	5	<DL
36. Hexachlorocyclopentadiene	5	<DL
37. Indeno (1,2,3-cd) pyrene	5	<DL
38. Isophorone	5	<DL
39. Naphthalene	5	<DL
40. Nitrobenzene	5	<DL
41. N-Nitrosodimethylamine	50	<DL
42. N-Nitrosodi-n-propylamine	50	<DL
43. N-Nitrosodiphenylamine	5	<DL
44. Phenanthrene	5	<DL
45. Pyrene	5	<DL
46. 1,2,4-Trichlorobenzene	5	<DL
47. 2,3,7,8-Tetrachlorodibenzo- p-dioxin (Dioxin)	ND	ND



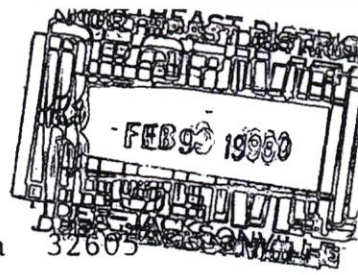


ACID EXTRACTABLES	DETECTION LIMIT (DL) ug/L	RESULT ug/L
1. 2-Chlorophenol	10	<DL
2. 2,4-Dichlorophenol	10	<DL
3. 2,4-Dimethylphenol	10	<DL
4. 2,4-Dinitrophenol	100	<DL
5. 2-Methyl-4,6-dinitrophenol	100	<DL
6. 4-Nitrophenol	10	<DL
7. Pentachlorophenol	10	<DL
8. Phenol	10	<DL
9. 2,4,6-Trichlorophenol	10	<DL
10. 4-Chloro-3-methylphenol	10	<DL
11. 2-Nitrophenol	10	<DL

PESTICIDES	DETECTION LIMIT (DL) ug/L	RESULT ug/L
1. Aldrin	5	<DL
2. a-BHC	5	<DL
3. b-BHC	5	<DL
4. g-BHC	5	<DL
5. d-BHC	5	<DL
6. Chlordane	5	<DL
7. 4,4'-DDD	5	<DL
8. 4,4'-DDE	5	<DL
9. 4,4'-DDT	5	<DL
10. Dieldrin	5	<DL
11. Endosulfan I	5	<DL
12. Endosulfan II	5	<DL
13. Endosulfan Sulfate	5	<DL
14. Endrin	5	<DL
15. Endrin aldehyde	5	<DL
16. Heptachlor	5	<DL
17. Heptachlor epoxide	5	<DL
18. Toxaphene	5	<DL
19. PCB-1016	5	<DL
20. PCB-1221	5	<DL
21. PCB-1232	5	<DL
22. PCB-1242	5	<DL
23. PCB-1248	5	<DL
24. PCB-1254	5	<DL
25. PCB-1260	5	<DL
26. Ethion	5	<DL
27. Trithion	5	<DL
28. o,p-DDT, DDE and DDD	5	<DL
29. Tedion	5	<DL
30. Aldicarb	10	<DL
31. Diazinon	5	<DL
32. Malathion	5	<DL
33. Parathion	5	<DL
34. Guthion	10	<DL
35. Dicofol	5	<DL



I. S. Akly, P. E.  
P. O. Box 7164  
Gainesville, Florida 32605  
(904) 372-7824



February 5, 1990

Florida Department of Environmental Regulation  
Northeast District  
3426 Bills Road  
Jacksonville, Florida 32207

Attention: Mr. Ernest E. Frey, District Manager

Re: 242 Village, Columbia County  
Water Distribution System and Treatment  
Certification of Construction

Gentlemen,

Attached are Drawing Nos. WS-100, WS-101 and WS-102  
of the above water distribution system revised for AS-BUILT.

This letter is to certify that the 242 Village Water  
Distribution System and Treatment Chlorination Plant have  
been constructed in accordance with the design drawings and  
specifications.

If you have any questions or need additional information  
please call.

Sincerely,

Issam S. Akly, P. E.

cc: Mr. Bill Blackwell





I. S. Akly, P. E.  
P. O. Box 7164  
Gainesville, Florida 32605  
(904) 372-7824

December 18, 1989

Florida Department of Environmental Regulation  
Northeast District  
3426 Bills Road  
Jacksonville, Florida 32207

Attention: Mr. Ernest E. Frey, District Manager

Re: 242 Village, Columbia County  
Water Distribution System  
Certification of Construction

Gentlemen,

Attached are Drawing Nos. WS-100, WS-101 and WS-102  
of the above water distribution system revised for AS-BUILT.

I have inspected the water system on December 14 and  
December 18, 1989.

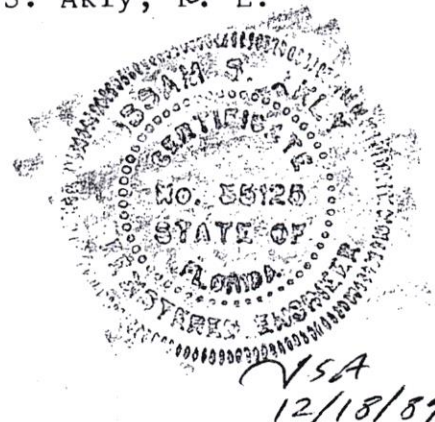
This letter is to certify that the 242 Village Water  
Distribution System has been constructed in accordance  
with the design drawings and specifications.

If you have any questions or need additional information  
please call.

Sincerely,

*I. S. Akly*  
Issam S. Akly, P. E.

cc: Mr. Bill Blackwell





## APPLICATION TRACKING SYSTEM

04/25/88

APPL NO:147558

APPL RECVD:04/04/88 TYPE CODE:WC SUBCODE:C

LAST UPDATE:04/25/88

DER OFFICE RECVD:JAX DER OFFICE TRANSFER TO:---

APPLICATION COMPLETE:04/19/88

DER PROCESSOR:OWEN, JERRY

APPL STATUS:IS DATE:04/19/88 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)

RELIEF:-- (SSAC/EXEMPTIONS/VARIANCE)

(Y/N) N MANUAL TRACKING

DISTRICT:31 COUNTY:12

(Y/N) N DNR REVIEW REQD?

LAT/LONG:30.06.36/82.37.36

(Y/N) N PUBLIC NOTICE REQD?

BASIN-SEGMENT:-----

(Y/N) N GOV BODY LOCAL APPROVAL REQD?

COE #:-----

(Y/N) Y LETTER OF INTENT REQD? \_ (I/ISSUE D/DENY)

ALT#:-----

PROJECT SOURCE NAME:242 VILLAGE

STREET:CR #242

CITY:LAKE CITY

STATE:FL

ZIP:32055

PHONE:904-755-5678

APPLICATION NAME:BILL BLACKWELL

STREET:P.O. BOX 3264

CITY:LAKE CITY

STATE:FL

ZIP:32055

PHONE:904-755-5678

AGENT NAME:AKLY, ISSAM S. P.E.

STREET:P.O. BOX 7164

CITY:GAINESVILLE

STATE:FL

ZIP:32605

PHONE:904-372-7824

FEE #1 DATE PAID:04/04/88

AMOUNT PAID:00020

RECEIPT NUMBER:00120089

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE	- - -	/ / /
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT	- - - - -	/ / / - - / /
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP.	- .	/ /
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - - - -	/ / / - - / /
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - - - -	/ / / - - / /
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - - - -	/ / / - - / /
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - - - -	/ / / - - / /
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - - - -	/ / / - - / /
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - - - -	/ / / - - / /
F DATE GOVERNING BODY REQUESTED SURVEY RESULTS/REPORTS	- -	/ /
G DATE FIELD REPORT WAS REQ--REC	- - - - -	/ / / - - / /
H DATE DNR REVIEW WAS COMPLETED	- - - - -	/ /
I DATE APPLICATION WAS COMPLETE	- - - - -	04/19/88
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS	- -	/ /
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT	- - - - -	/ / / - - / /
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT	- - - - -	/ /
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED	- -	/ /
N WAIVER DATE BEGIN--END (DAY 90)	- - - - -	/ / / - - / /

COMMENTS:

~~AS BOLT~~





# Florida Department of Environmental Regulation

Northeast District • 3426 Bills Road • Jacksonville, Florida 32207 • 904-798-4200

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Ernest Frey, Deputy Assistant Secretary

March 3, 1989

Mr. Issam S. Akly, P.E.  
Post Office Box 7164  
Gainesville, Florida 32605

Dear Mr. Akly:

Columbia County - PW  
242 Village WTP and Distribution System

Please refer to plans for the water system to serve the referenced project approved under our Permit Number WC12-147558, dated April 19, 1988.

We have not received your certification of construction and since it has been over a year since plans were approved, we would appreciate your notifying us as to the status of the project.

Sincerely,

*for* *Delia R. Richards*  
Jerry M. Owen  
P. E. Administrator

JMO:dr

cc: Mr. Bill Blackwell  
Columbia County Health Department



PERMIT # 2205 NORTHEAST DISTRICT

DECEASED  
JUL 8 1991  
SMALLER COLOR COPY  
JACKSONVILLE

[illegible]

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

Locate in Section

Driller's Signature Norman H. [Signature] Registration # 10035

Access to the well site  
WMD. US #3769  
35.00

Well located: C 242 Approx. 4 Fee Included \$ 1000 20.00  
 Street or RFD Amount  
 Miles 5 of or in Lake City Ray and S. Hall



SOWANVILLE

## APPLICATION FOR WELL PERMITTING

NORTHEAST DISTRICT

NORTHEAST DISTRICT

To: Permitting  
Route 3, Box 64  
Live Oak, Florida 32060  
Phone: (904) 362-6909

THIS FORM MUST BE  
FILLED OUT COMPLETELY

Permit Number

27057

WUP Number

Date 3-21-87

In compliance with the Rules and Regulations of the SRWMD, authorization is requested to construct ( ) repair ( ) abandon ( )  
a well for: (PLEASE PRINT OR TYPE)

OWNER Bill Blackwell H 13 2 N 1230 Lake City, FL 32055  
STREET OR RFD TOWN OR CITY, COUNTY & ZIP  
CONTRACTOR Verne Hall 1502 Lake City, FL 32055  
LICENSE NUMBER TOWN OR CITY & ZIP

Date Construction is to begin:

WELL WILL BE: 4 in. diameter, proposed yield 20 GPM, approximately 150 deep, with 100 feet of  
black ( ) galvanized ( ) PVC ( ) other ( ) specify

CASING WILL BE JOINED BY: coupling ( ) weld ( ) both ( ) PVC ( ) annular space will be filled

WELL WILL BE USED FOR: private supply ( ) public supply ( ) Irrigation ( ) Industrial ( ) test ( ) monitor ( ) other ( )  
specify

CONSTRUCTION EQUIPMENT: cable tool ( ) rotary ( ) jetted ( ) auger ( ) other ( ) specify ( )

Request for repair ( ) modification ( ) alteration ( ) of well constructed under Permit No. Describe work to be done.

CONTRACTOR agrees to furnish a well completion report within 30 days after drilling operations cease and to comply with all provisions of the Rules of the SRWMD and with local health regulations relative to well construction. Test holes, if desired, will be constructed as provided in the Rules of the SRWMD and upon abandonment, the hole will be thoroughly plugged from bottom to top as to prevent any leakage in or out of well. Wells temporarily not in use will be plugged or capped. The District will be allowed geophysical logging. Contractor will furnish well cuttings to the District at each change in formation and each 10 feet, if requested. Additional conditions or requirements shown below will be complied with. OWNER consents to personnel of SRWMD having access to the well site at any reasonable time and agrees to consumptive use and allocations of the use of water according to Rules of the SRWMD.

Well located: C 242 Approx. 4

Fee Included \$

Amount

1000-35.00

Street or RFD

Miles 5 of or in

Lake City

NSEW

City or Town

County

Columbia

Subdivision

242 Village

Blk. No.

Lot No.

21

45

19E

1/4

1/4

1/4

1/4

SEC

TWP

RANGE

INDICATE

N

WELL SITE

Signature WATER WELL CONTRACTOR - Required

Signature OWNER OR AGENT

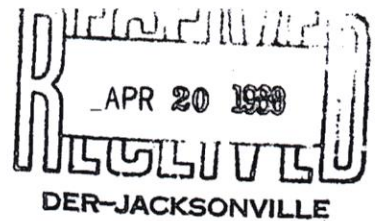
PERMIT REJECTED ( ): REASON

PERMIT GRANTED ( )

CONDITIONS: This well must be at least 200' distance from any septic tank/drainfield. Must be grouted bottom to top. SRWMD rep. must be on site during grouting. SRWMD rep. must be given a 24-hour notice prior to grouting.

Fee Schedule: Payable with application. Non-refundable if per-





I. S. Akly, P. E.  
P. O. Box 7164  
Gainesville, Florida 32605  
Phone 904 372-7824

April 18, 1988

State of Florida  
Department of Environmental Regulation  
3426 Bills Road  
Jacksonville, Florida 32207

Attention: Mr. Jerry Owen

Re: Application to contruct a public water system  
242 Village, County Road 242, Lake City, Florida,  
Columbia County.

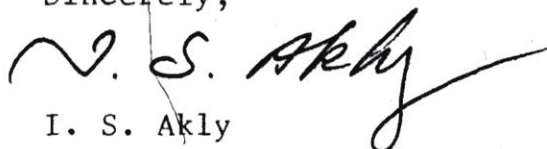
Gentlemen:

Attached per the request of Mr. Bob Leetch are the specifications  
for the chlorinator and the pump for the subject water  
distribution system.

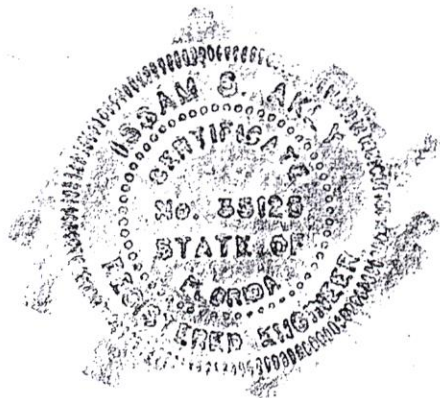
The pump specified is Grundfos Stainless Steel Submersible  
Pump, Model 40S30-9 with 3 HP motor. The Feeder is Model No.  
45M-HP6 by G. H. Stenner.

If you need more information please call.

Sincerely,

  
I. S. Akly

cc: Bill Blackwell, Owner





**GRUNDOS****40 GPM****MODEL  
40S****SELECTION CHARTS**

(Ratings are in GALLONS PER HOUR - GPH)

FLOW RANGE  
**24 to 55 GPM**PUMP OUTLET  
**2" NPT**

PUMP MODEL	HP	PSI	DEPTH TO PUMPING WATER LEVEL (LIFT) IN FEET																									
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	400	460	520	600	700	800	900	1000	1100	
40S10-3	1	0		3385	2030	675																						
		20	1615																									
		30	895																									
		40																										
		50																										
		60																										
Shut-off PSI:			29	20	11	3																						
40S15-5	1 1/2	0			3495	3145	2340	1540																				
		20	3360	2995	2080	1160	580																					
		30	2740	2130	1065																							
		40	1790	765	385																							
		50	905																									
		60	185																									
Shut-off PSI:			54	45	36	28	19	10																				
40S20-7	2	0				3530	3255	2980	2400	1820	930																	
		20		3460	3160	2855	2210	1565	780																			
		30	3410	3160	2700	2230	1375	515	260																			
		40	3050	2710	2000	1295	650																					
		50	2530	1995	1115	235																						
		60	1780	1015	510																							
Shut-off PSI:			78	70	61	52	44	35	26	18	9																	
40S30-9	3	0						3385	3150	2910	2465	2020	1345	675														
		20				3330	3065	2805	2320	1835	1145	450	225															
		30		3480	3275	3065	2690	2310	1685	1060	530																	
		40	3450	3265	2980	2690	2165	1640	940	235																		
		50	3205	2980	2565	2150	1495	840	420																			
		60	2880	2560	2000	1435	735																					
Shut-off PSI:			103	95	86	77	69	60	52	43	34	26	17	8														
40S50-12	5	0								3435	3275	3115	2870	2620	2230	1845	1335											
		20							3400	3225	3060	2785	2520	2110	1700	1180	665	330										
		30						3360	3215	2995	2780	2430	2080	1600	1115	590												
		40					3350	3170	2990	2700	2410	1980	1550	1025	500	250												
		50				3315	3160	2925	2690	2320	1950	1450	955	480														
		60		3300	3110	2915	2605	2295	1845	1395	870	340																
Shut-off PSI:				133	124	116	107	98	90	81	72	64	55	46	38	29	20											
40S50-15	5	0									3390	3260	3135	2955	2775	2510	1885	680										
		20									3355	3220	3090	2895	2705	2425	2145	1770	975									
		30								3330	3210	3050	2885	2650	2405	2070	1735	1325	490									
		40							3320	3180	3040	2835	2630	2335	2040	1655	1275	845	210									
		50				3415	3290	3170	2995	2825	2570	2315	1965	1615	1200	780	390											
		60			3390	3280	3135	2985	2770	2550	2245	1935	1540	1145	715	285												
Shut-off PSI:					161	153	144	135	127	118	110	101	92	84	75	66	58	40	14									
40S75-21	7 1/2	0													3400	3315	3125	2720	2130	1320	110							
		20													3375	3290	3200	3095	2835	2280	1520	615						
		30													3360	3275	3180	3075	2950	2650	2015	1180	265					
		40													3350	3260	3165	3060	2930	2790	2430	1715	830					
		50													3335	3250	3150	3040	2910	2760	2590	2180	1390	475				
		60													3320	3235	3135	3020	2890	2740	2565	2365	1900	1040	130			
Shut-off PSI:										193	184	176	167	158	150	141	132	115	89	63	37	3						
40S75-25	7 1/2	0														3340	3110	2780	2315	1460	180							
		20														3320	3170	2865	2435	1850	870							
		30														3310	3235	3065	2720	2230	1585	600						
		40														3370	3300	3225	3140	2945	2550	2000	1305	275				
		50														3360	3285	3210	3130	3035	2810	2355	1745	1010				
		60														3345	3275	3200	3115	3020	2910	2650	2140	1475	710			
Shut-off PSI:										226	217	208	200	191	182	165	139	113	87	52	9							
40S100-30	10	0															3385	3205	2970	2530	1715	670						
		20																3250	3030	2735	2190	1250	180					
		30																	3170	2925	2595	1995	1005					
		40																		3290	3085	2810	2440	1785	755			
		50																			3220	2990	2680	2270	1560	505		
		60																				3140	2880	2535	2085	1330	260	
Shut-off PSI:																					227	201	175	149	115	71	28	



**GRUNDOS****40 GPM****MODEL  
40S****SELECTION CHARTS**

(Ratings are in GALLONS PER HOUR - GPH)

FLOW RANGE  
**24 to 55 GPM**PUMP OUTLET  
**2" NPT**

PUMP MODEL	HP	PSI	DEPTH TO PUMPING WATER LEVEL (LIFT) IN FEET																									
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	400	460	520	600	700	800	900	1000	1100	
40S10-3	1	0		3385	2030	675																						
		20	1615																									
		30	895																									
		40																										
		50																										
		60																										
Shut-off PSI:			29	20	11	3																						
40S15-5	1½	0			3495	3145	2340	1540																				
		20	3360	2995	2080	1160	580																					
		30	2740	2130	1065																							
		40	1790	765	385																							
		50	905																									
		60	185																									
Shut-off PSI:			54	45	36	28	19	10																				
40S20-7	2	0				3530	3255	2980	2400	1820	930																	
		20		3460	3160	2855	2210	1565	780																			
		30	3410	3160	2700	2230	1375	515	260																			
		40	3050	2710	2000	1295	650																					
		50	2530	1995	1115	235																						
		60	1780	1015	510																							
Shut-off PSI:			78	70	61	52	44	35	26	18	9																	
40S30-9	3	0						3385	3150	2910	2465	2020	1345	675														
		20					3330	3065	2805	2320	1835	1145	450	225														
		30		3480	3275	3065	2690	2310	1685	1060	530																	
		40	3450	3265	2980	2690	2165	1640	940	235																		
		50	3205	2980	2565	2150	1495	840	420																			
		60	2880	2560	2000	1435	735																					
Shut-off PSI:			103	95	86	77	69	60	52	43	34	26	17	8														
40S50-12	5	0								3435	3275	3115	2870	2620	2230	1845	1335											
		20							3400	3225	3060	2785	2520	2110	1700	1180	665	330										
		30						3360	3215	2995	2780	2430	2080	1600	1115	590												
		40					3350	3170	2990	2700	2410	1980	1550	1025	500	250												
		50				3315	3160	2925	2690	2320	1950	1450	955	480														
		60		3300	3110	2915	2605	2295	1845	1395	870	340																
Shut-off PSI:			133	124	116	107	98	90	81	72	64	55	46	38	29	20												
40S50-15	5	0									3390	3260	3135	2955	2775	2510	1885	680										
		20									3355	3220	3090	2895	2705	2425	2145	1770	975									
		30									3330	3210	3050	2885	2650	2405	2070	1735	1325	490								
		40									3320	3180	3040	2835	2630	2335	2040	1655	1275	845	210							
		50					3415	3290	3170	2995	2825	2570	2315	1965	1615	1200	780	390										
		60			3390	3280	3135	2985	2770	2550	2245	1935	1540	1145	715	285												
Shut-off PSI:				161	153	144	135	127	118	110	101	92	84	75	66	58	40	14										
40S75-21	7½	0													3400	3315	3125	2720	2130	1320	110							
		20													3375	3290	3200	3095	2835	2280	1520	615						
		30													3360	3275	3180	3075	2950	2650	2015	1180	265					
		40													3350	3260	3165	3060	2930	2790	2430	1715	830					
		50													3335	3250	3150	3040	2910	2760	2590	2180	1390	475				
		60													3320	3235	3135	3020	2890	2740	2565	2365	1900	1040	130			
Shut-off PSI:										193	184	176	167	158	150	141	132	115	89	63	37	3						
40S75-25	7½	0														3340	3110	2780	2315	1460	180							
		20														3320	3170	2865	2435	1850	870							
		30															3310	3235	3065	2720	2230	1585	600					
		40															3370	3300	3225	3140	2945	2550	2000	1305	275			
		50															3360	3285	3210	3130	3035	2810	2355	1745	1010			
		60															3345	3275	3200	3115	3020	2910	2650	2140	1475	710		
Shut-off PSI:										226	217	208	200	191	182	165	139	113	87	52	9							
40S100-30	10	0															3385	3205	2970	2530	1715	670						
		20																3250	3030	2735	2190	1250	180					
		30																	3170	2925	2595	1995	1005					
		40																		3290	3085	2810	2440	1785	755			
		50																			3220	2990	2680	2270	1560	505		
		60																				3140	2880	2535	2085	1330	260	
Shut-off PSI:																					227	201	175	149	115	71	28	



GEARMOTOR ASSEMBLY  
COMPLETE

BASE MOUNTING  
BRACKET

FEED RATE CONTROL  
COMPLETE

MOTOR  
BASE

TUBE HOUSING

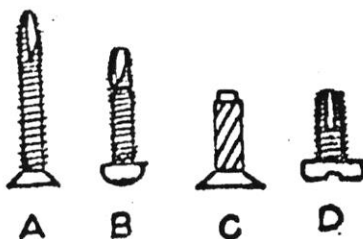
ROLLER ASSEMBLY  
COMPLETE NO. 76

FEEDER TUBE  
TYPE HPB-2-7

TUBE HOUSING  
COVER

\* PARTS NO. 1 - 4  
TUBE HOUSING  
COMPLETE

NOTE: HIGH PRESSURE  
TUBE HOUSING PARTS (#2  
AND #3) ARE NOT INTER-  
CHANGEABLE WITH STAND-  
DARD 45M PARTS.



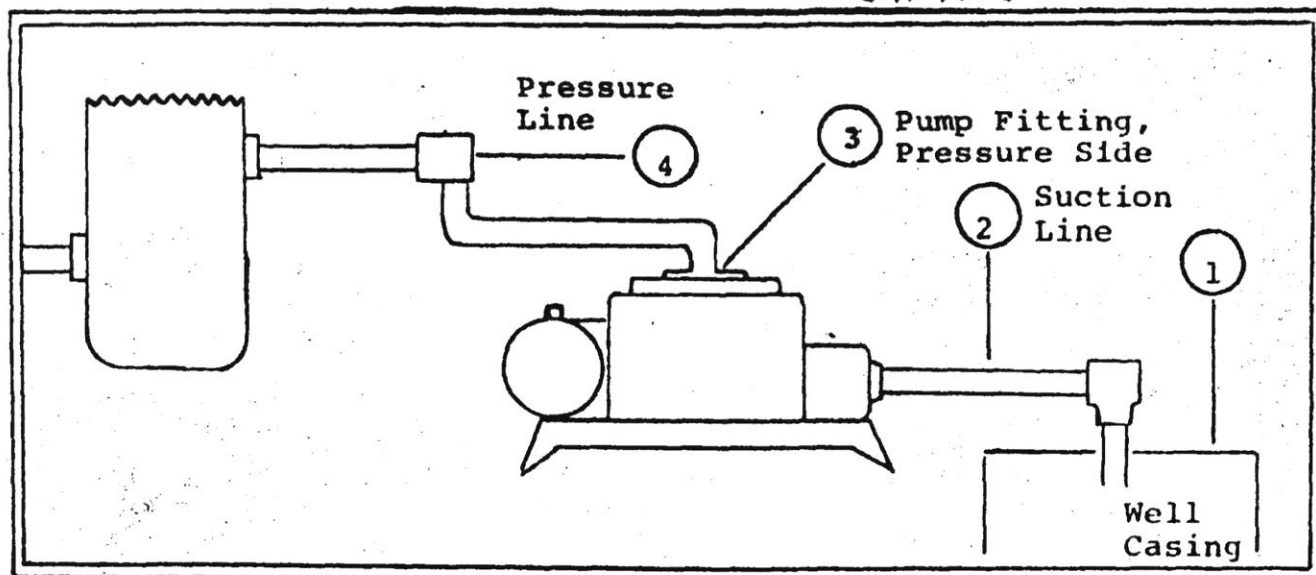
G. H. STENNER & CO., INC.		
SCL: N.T.S.	REV'D:	DRWN By: ALEX BOCH
APPD: Wjm	DATE: 12-12-83	DWG. NO. 5-84
TITLE		
EXPLODED PARTS DIAGRAM		
FOR MODEL 45M-HP 6		



ADDITIONAL INSTRUCTIONS FOR  
STENNER CHEMICAL METERING  
PUMPS - MODEL 45M-HP6  
"D" SHAFT

G. H. STENNER & CO., INC.  
P. O. Box 17065  
Jacksonville, FL 32245-7065  
May 8, 1984

641-1666



#### INSTALLATION

#### FEEDER MODEL

#### REMARKS

1. Directly into well casing.
2. Suction line before pump.
3. Pump fitting, pressure side.
4. Pressure line before holding tank.

45M Standard  
45M-HP6

45M Standard  
45M-HP6

45M-HP6

Discharge tubing should extend as deep as pump suction line. Longest contact time.

Use of an injection check valve will allow maintenance without water spills.

Use of an injection check valve will allow maintenance without water spills.

#### APPROXIMATE OUTPUT AT 100 PSI

Model 45M-HP6  
#HPB-2-7 Tube Assy.

<u>Dial Position</u>	<u>Gallons Per Day</u>	<u>Liters Per Day</u>
L	.3	1.1
1	.6	2.3
2	1.2	4.5
3	1.8	6.8
4	2.4	9.1
5	3.0	11.4
6	3.6	13.6
7	4.2	15.9
8	4.8	18.2
9	5.4	20.4
10	6.0	22.7

U.S. Pat. Nos. 2,975,719 & 3,756,752  
U.S. Pat. Pending

Can. Pat. No. 673,571



State of Florida  
 Department of Health and Rehabilitative Services  
 Office of Laboratory Services  
 P.O. Box 210  
 Jacksonville, Florida 32231

## DRINKING WATER BACTERIOLOGICAL ANALYSIS

NORTHEAST DISTRICT  
 RECEIVED  
 DEC 20 1989  
 DER-JACKSONVILLE

FEB 9 3 01 AM '88

I.D. NO. 12001  
 REC'D JAX

SYSTEM NAME: 242 - Village SYSTEM I.D. NO.: \_\_\_\_\_ DER DISTRICT: 02

ADDRESS: C-24 COUNTY: Columbia COLLECTOR: Chap

SAMPLE SITE (Locality or Subdivision): \_\_\_\_\_

RAW OR TREATED: Raw DATE AND TIME COLLECTED: 2/8/88

TYPE OF SUPPLY (Circle one): ☒ Community public water system ☐ Non-community public water system ☐ Other public water system  
☐ Private well ☐ Swimming pool ☐ Bottled water

TYPE OF SAMPLE (Circle one): ☐ Compliance ☐ Recheck ☐ Main Clearance ☒ Well Survey ☐ Other (specify) 40

REMARKS: New system 1 & 2 of 20

## TO BE COMPLETED BY COLLECTOR OF SAMPLE

COLL. NO.	SAMPLE POINT	CI RES'D	pH
5	well		
6	well		

## TO BE COMPLETED BY LAB

SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		MPN 100 ML (305)
		MF/100 ML (303)		
		TOTAL	FECAL	
3		1		
4		1		

## INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CP&U  
 ENV. HEALTH SECTION  
 ROOM 5, COURT HOUSE ANNEX  
 LAKE CITY FLA 32055

Blanca R. Rodriguez, Engineer  
 Dept. of Env. Regulation

REVIEWING OFFICIAL: \_\_\_\_\_

TITLE: \_\_\_\_\_

FEB 15 1988



State of Florida  
Department of Health and Rehabilitative Services  
Office of Laboratory Services  
P.O. Box 210  
Jacksonville, Florida 32231

NORTHEAST DISTRICT  
**RECEIVED**  
DEC 20 1989  
**RECEIVED**  
DER-JACKSONVILLE

FOR LAB USE ONLY

FEB 10 10 05 AM '90

I.D. NO. 12001  
REC'D IAX

DRINKING WATER BACTERIOLOGICAL ANALYSIS

SYSTEM NAME: 242-Village SYSTEM I.D. NO.: \_\_\_\_\_ DER DISTRICT: 02

ADDRESS: C-242 COUNTY: Columbia COLLECTOR: Lloyd

SAMPLE SITE (Locality or Subdivision): \_\_\_\_\_

RAW OR TREATED: RAW DATE AND TIME COLLECTED: 2/9/88 11:30 AM

TYPE OF SUPPLY (Circle one): ☒ Community public water system ☐ Non-community public water system ☐ Other public water system  
☐ Private well ☐ Swimming pool ☐ Bottled water

TYPE OF SAMPLE (Circle one): ☐ Compliance ☐ Recheck ☐ Main Clearance ☒ Well Survey ☐ Other (specify) \_\_\_\_\_

REMARKS:

Well Survey 354 of 20 40

TO BE COMPLETED BY COLLECTOR OF SAMPLE

COLL. NO.	SAMPLE POINT	CI RES'D	pH
<u>6</u>	<u>well</u>		
<u>7</u>	<u>well</u>		

TO BE COMPLETED BY LAB

SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		MPN 100 ML (305)
		MF/100 ML (303)		
		TOTAL	FECAL	
5441		<1		
5442		<1		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CPNU  
ENVIR. HEALTH SECTION  
200M S. COURT HOUSE ANNEX  
LAKE CITY FLA 32055

Blanca R. Rodriguez, Esq.  
Dept. of Env. Regulation  
SATISFACTORY  
( ) UNSATISFACTORY  
( ) RE-SUBMIT

FEB 11 1988

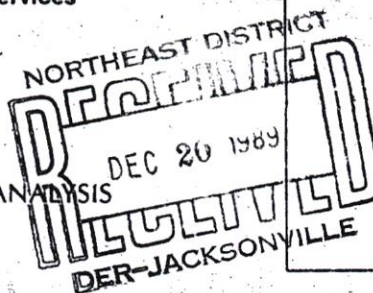
REVIEWING OFFICIAL: \_\_\_\_\_

TITLE: \_\_\_\_\_



State of Florida  
Department of Health and Rehabilitative Services  
Office of Laboratory Services  
P.O. Box 210  
Jacksonville, Florida 32231

DRINKING WATER BACTERIOLOGICAL ANALYSIS



FEB 11 10 42 AM '88

I.D. NO. 12001  
REC'D FLA

SYSTEM NAME: 242 Village SYSTEM I.D. NO.: — DER DISTRICT: 02

ADDRESS: — COUNTY: Columbia COLLECTOR: P Melgard / D Cannon

SAMPLE SITE (Locality or Subdivision): 242

RAW OR TREATED: T DATE AND TIME COLLECTED: 2/10/88 10:10

TYPE OF SUPPLY (Circle one): Community public water system Non-community public water system Other public water system  
Private well Swimming pool Bottled water

TYPE OF SAMPLE (Circle one): Compliance Recheck Main Clearance Well Survey Other (specify) —

REMARKS:

5 of 20

40

TO BE COMPLETED BY COLLECTOR OF SAMPLE

COLL. NO.	SAMPLE POINT	CI RES'D	PH
2	well	/	
3	well sml	/	

TO BE COMPLETED BY LAB

SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		MPN 100 ML (305)
		MF/100 ML (303)	FECAL	
5707	M	<1		
5708	M	<1		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CPHU  
ENV. HEALTH SECTION  
ROOM 3, COURT HOUSE ANNEX  
LAKE CITY FLA 32055

Blanca R. Rodriguez  
Dept. of Env. Regulation  
FEB 17 1988  
SATISFACTORY  
UNSATISFACTORY  
RE-SUBMIT

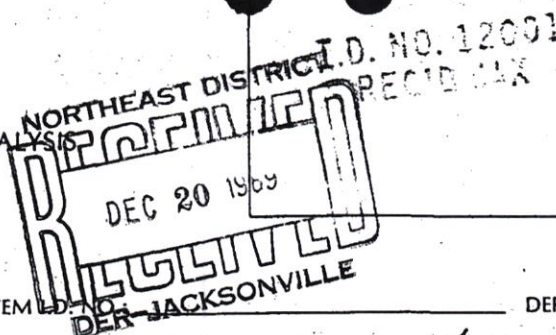
REVIEWING OFFICIAL: —

TITLE: —



Department of Health and Rehabilitative Services  
Office of Laboratory Services  
Box 2  
Jacksonville, Florida 32231

DRINKING WATER BACTERIOLOGICAL ANALYSIS



SYSTEM NAME: 242 V. 11/90 SYSTEM ID: NO DER DISTRICT: 02  
ADDRESS: C-242 COUNTY: Columbia COLLECTOR: Lloyd

SAMPLE SITE (Locality or Subdivision): \_\_\_\_\_

RAW OR TREATED: RAW DATE AND TIME COLLECTED: 2/11/88 3:35

TYPE OF SUPPLY (Circle one): ☒ Community public water system ☐ Non-community public water system ☐ Other public water system  
☐ Private well ☐ Swimming pool ☐ Bottled water

TYPE OF SAMPLE (Circle one): ☐ Compliance ☐ Recheck ☐ Main Clearance ☒ Well Survey ☐ Other (specify) \_\_\_\_\_

REMARKS: Well Survey 7:8 of 240

TO BE COMPLETED BY COLLECTOR OF SAMPLE

COLL. NO.	SAMPLE POINT	CI RES'D	pH
18	well		
19	well		

TO BE COMPLETED BY LAB

SAMPLE NUMBER	TOTAL COLIFORM (303)	COLIFORM		MPN 100 ML (305)
		MF/100 ML (303)	FECAL	
5873		<1		
5877		<1		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CPHU  
ENVIR. HEALTH SECTION  
ROOM 6, COURT HOUSE ANNEX  
LAKE CITY FLA 32055

Blanca R. Rodriguez, Esq.  
Dept. of Env. Regulation  
FEB 17 1988  
( ) SATISFACTORY  
( ) UNSATISFACTORY  
( ) RE-SUBMIT

REVIEWING OFFICIAL: \_\_\_\_\_

TITLE: \_\_\_\_\_



State of Florida  
Department of Health and Rehabilitative Services  
Office of Laboratory Services  
P.O. Box 210  
Jacksonville, Florida 32231

FEB 15 9 20 AM '89

I.D. NO. 12001  
REC'D 46

DRINKING WATER BACTERIOLOGICAL ANALYSIS

NORTHEAST DISTRICT  
RECEIVED  
DEC 20 1989  
REGISTERED  
DER-JACKSONVILLE

SYSTEM NAME: 242- Village SYSTEM I.D. NO.: \_\_\_\_\_ DER DISTRICT: 02

ADDRESS: C-242 COUNTY: Columbia COLLECTOR: Lloyd

SAMPLE SITE (Locality or Subdivision): \_\_\_\_\_

AW OR TREATED: RAW DATE AND TIME COLLECTED: 2/15/88 10 00 AM

TYPE OF SUPPLY (Circle one): ☒ Community public water system ☐ Non-community public water system ☐ Other public water system  
☐ Private well ☐ Swimming pool ☐ Bottled water

TYPE OF SAMPLE (Circle one): ☐ Compliance ☐ Recheck ☐ Main Clearance ☒ Well Survey ☐ Other (specify) \_\_\_\_\_

REMARKS:

9 of 20

40

TO BE COMPLETED BY COLLECTOR OF SAMPLE			
COLL. NO.	SAMPLE POINT	CI RES'D	pH
20	9 of 20 well	/	
21	10 of 20 well	/	

TO BE COMPLETED BY LAB				
SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		
		MF/100 ML (303)		MPN 100 ML (305)
		TOTAL	FECAL	
15	M	<1		
16	M	<1		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CP&H  
ENVIR. HEALTH SECTION  
ROOM 6, COURT HOUSE ANNEX  
LAKE CITY FLA 32055

Blanca R. Rodriguez, Engineer  
Dept. of Env. Regulation

(4) SATISFACTORY  
( ) UNSATISFACTORY  
( ) RE-SUBMIT

REVIEWING OFFICIAL: \_\_\_\_\_

TITLE: \_\_\_\_\_

FEB 23 1988



State of Florida  
Department of Health and Rehabilitative Services  
Office of Laboratory Services  
P.O. Box 210  
Jacksonville, Florida 32231

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DRINKING WATER BACTERIOLOGICAL ANALYSIS

RECEIVED  
NORTHEAST DISTRICT  
DEC 20 1988  
REC'D JAX  
DER-JACKSONVILLE

SYSTEM NAME: 242-UMge SYSTEM I.D. NO.: \_\_\_\_\_ DER DISTRICT: 02

ADDRESS: C-242 COUNTY: Collier COLLECTOR: L. J. P.

SAMPLE SITE (Locality or Subdivision): \_\_\_\_\_

RAW OR TREATED: Raw DATE AND TIME COLLECTED: 11/16/88 2 PM

TYPE OF SUPPLY (Circle one): ☒ Community public water system ☐ Non-community public water system ☐ Other public water system  
☐ Private well ☐ Swimming pool ☐ Bottled water

TYPE OF SAMPLE (Circle one): ☐ Compliance ☐ Recheck ☐ Main Clearance ☒ Well Survey ☐ Other (specify) \_\_\_\_\_

REMARKS:

Well Survey 11-12-88 40

TO BE COMPLETED BY COLLECTOR OF SAMPLE

COLL. NO.	SAMPLE POINT	CI RES'D	pH
13	11 of 20 wells		
14	12 of 20 wells		

TO BE COMPLETED BY LAB

SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		MPN 100 ML (305)
		MF/100 ML (303)		
		TOTAL	FECAL	
335		TNTC to Resubmit		
337		<1		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CPNU  
ENVR. HEALTH SECTION  
ROOM 6, COURT HOUSE ANNEX  
LAKE CITY FLA 32055

REVIEWING OFFICIAL: \_\_\_\_\_

TITLE: \_\_\_\_\_

2.5 1988  
Blanca R. Rodriguez  
Dept. of Env. Regulation  
RE-SUBMIT  
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UNSATISFACTORY

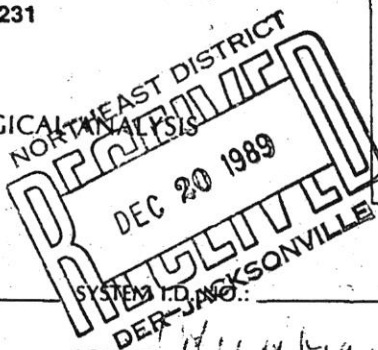


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Department of Health and Rehabilitative Services  
Office of Laboratory Services  
P.O. Box 210  
Jacksonville, Florida 32231

FEB 10 9 22 AM '89

I.D. NO. 12001  
REC'D JAX

DRINKING WATER BACTERIOLOGICAL



SYSTEM NAME: 242 Village DER DISTRICT: 02

ADDRESS: \_\_\_\_\_ COUNTY: Duval COLLECTOR: J. Helgand

SAMPLE SITE (Locality or Subdivision): C-240

RAW OR TREATED: 12 DATE AND TIME COLLECTED: 2/17/88 10:25

TYPE OF SUPPLY (Circle one): Community public water system Non-community public water system Other public water system  
Private well Swimming pool Bottled water

TYPE OF SAMPLE (Circle one): Compliance Recheck Main Clearance Well Survey Other (specify) \_\_\_\_\_

REMARKS: 13 + 14 of 20 40

TO BE COMPLETED BY COLLECTOR OF SAMPLE

COLL. NO.	SAMPLE POINT	CI RES'D	pH
<u>5</u>	<u>well</u>	<u>/</u>	
<u>6</u>	<u>well</u>	<u>/</u>	

TO BE COMPLETED BY LAB

SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		MPN 100 ML (305)
		MF/100 ML (303)		
<u>6523</u>	<u>M</u>	<u>&lt;1</u>		
<u>6524</u>	<u>M</u>	<u>&lt;1</u>		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CPHD  
ENVIR. HEALTH SECTION  
ROOM 3, COURT HOUSE ANNEX  
LAKE CITY FLA 32055

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Dept. of Env. Regulation  
SATISFACTORY  
UNSATISFACTORY  
RE-SUBMIT

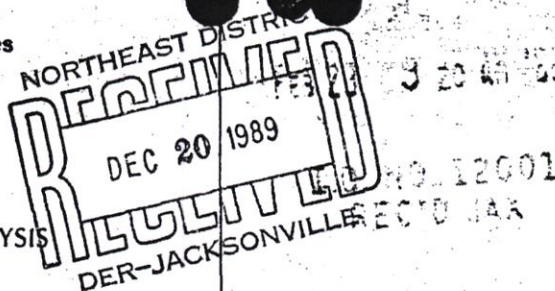
REVIEWING OFFICIAL: \_\_\_\_\_

TITLE: \_\_\_\_\_



State of Florida  
Department of Health and Rehabilitative Services  
Office of Laboratory Services  
P.O. Box 210  
Jacksonville, Florida 32231

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DRINKING WATER BACTERIOLOGICAL ANALYSIS

SYSTEM NAME: 24-V11A50 SYSTEM I.D. NO.: \_\_\_\_\_ DER DISTRICT: C-1

ADDRESS: C-212 COUNTY: Columbia COLLECTOR: 61-1

SAMPLE SITE (Locality or Subdivision): \_\_\_\_\_

RAW OR TREATED: RAW DATE AND TIME COLLECTED: 2/25/88

TYPE OF SUPPLY (Circle one): ☒ Community public water system ☐ Non-community public water system ☐ Other public water system  
☐ Private well ☐ Swimming pool ☐ Bottled water

TYPE OF SAMPLE (Circle one): ☐ Compliance ☐ Recheck ☐ Main Clearance ☒ Well Survey ☐ Other (specify) \_\_\_\_\_

REMARKS:

15 & 16 of 20

40

TO BE COMPLETED BY COLLECTOR OF SAMPLE

COLL. NO.	SAMPLE POINT	CI RES'D	pH
1	15 of 20		
2	16 of 20		

TO BE COMPLETED BY LAB

SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		MPN 100 ML (305)
		MF/100 ML (303)		
136	M	<1		
137	M	<1		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA SPIRO  
ENVIR. HEALTH SECTION  
ROOM 6, COURT HOUSE ANNEX  
LAKE CITY FLA 32055

Blanca R. Rodriguez, Engineer  
Dept. of Env. Regulation  
FEB 26 1988  
SATISFACTORY  
UNSATISFACTORY  
RE-SUBMIT

REVIEWING OFFICIAL: \_\_\_\_\_

TITLE: \_\_\_\_\_



State of Florida  
Department of Health and Rehabilitative Services  
Office of Laboratory Services  
P.O. Box 210  
Jacksonville, Florida 32231

NORTHEAST DISTRICT  
RECEIVED  
DEC 20 1989  
DER-JACKSONVILLE

FEB 24 11 07 AM '88  
I.D. NO. 12001  
REC'D JAX

DRINKING WATER BACTERIOLOGICAL ANALYSIS

SYSTEM NAME: 6212-Village SYSTEM I.D. NO.: \_\_\_\_\_ DER DISTRICT: 02

ADDRESS: 6247 COUNTY: Columbia COLLECTOR: L. J. J.

SAMPLE SITE (Locality or Subdivision): \_\_\_\_\_

RAW OR TREATED: Raw DATE AND TIME COLLECTED: 4/22/88 4:00 pm

TYPE OF SUPPLY (Circle one): Community public water system Non-community public water system Other public water system  
Private well Swimming pool Bottled water

TYPE OF SAMPLE (Circle one): Compliance Recheck Main Clearance Well Survey Other (specify) \_\_\_\_\_

REMARKS:

40

TO BE COMPLETED BY COLLECTOR OF SAMPLE

COLL. NO.	SAMPLE POINT	CI RES'D	pH
15	17 of 20		
16	18 of 20		

TO BE COMPLETED BY LAB

SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		MPN 100 ML (305)
		MF/100 ML (303)	FECAL	
7196	M	<1		
67197	M	<1		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CPHU  
ENVIR. HEALTH SECTION  
ROOM 6, COURT HOUSE ANNEX  
LAKE CITY FLA 32055

Elanca R. Rodriguez  
Dept. of Environmental Regulation  
APR 01 1988  
( ) SATISFACTORY  
( ) UNSATISFACTORY  
( ) RE-SUBMIT

REVIEWING OFFICIAL: \_\_\_\_\_

TITLE: \_\_\_\_\_



State of Florida  
Department of Health and Rehabilitative Services  
Office of Laboratory Services  
P.O. Box 210  
Jacksonville, Florida 32231

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NORTHEAST DISTRICT  
RECEIVED  
DEC 20 1989  
DER-JACKSONVILLE

FEB 25 10 33 AM '90  
I.D. NO 12001  
REC'D JAX

DRINKING WATER BACTERIOLOGICAL ANALYSIS

SYSTEM NAME: 242-0111 SYSTEM I.D. NO.: \_\_\_\_\_ DER DISTRICT: 02

ADDRESS: 6-24 COUNTY: CL COLLECTOR: 41/1

SAMPLE SITE (Locality or Subdivision): \_\_\_\_\_

RAW OR TREATED: Raw DATE AND TIME COLLECTED: 2/24/88 / 3:30

TYPE OF SUPPLY (Circle one): ☒ Community public water system ☐ Non-community public water system ☐ Other public water system  
☐ Private well ☐ Swimming pool ☐ Bottled water

TYPE OF SAMPLE (Circle one): ☐ Compliance ☐ Recheck ☐ Main Clearance ☒ Well Survey ☐ Other (specify) \_\_\_\_\_

REMARKS: 19 & 20 of 20 40

TO BE COMPLETED BY COLLECTOR OF SAMPLE

TO BE COMPLETED BY LAB

COLL. NO.	SAMPLE POINT	CI RES'D	pH	SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		
						MF/100 ML (303)		MPN 100 ML (305)
						TOTAL	FECAL	
6	19 of 20 well			125	4	1		
7	20 of 20 well			16	1	1		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CPHU  
ENVIR. HEALTH SECTION  
ROOM 5, COURT HOUSE ANNEX  
LAKE CITY FLA 32055

Blanca R. Rodriguez, Engineer  
Dept. of Env. Regulation  
( ) SATISFACTORY  
( ) UNSATISFACTORY  
( )  
( ) RE-SUBMIT

MAR 01 1989

REVIEWING OFFICIAL: \_\_\_\_\_

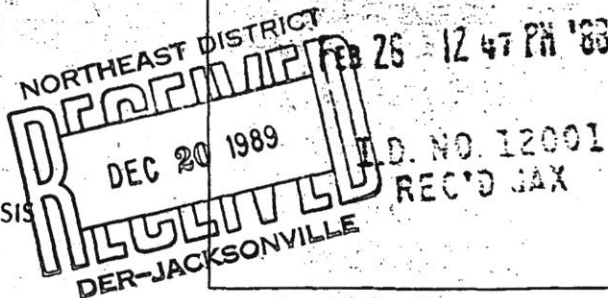
TITLE: \_\_\_\_\_



State of Florida  
Department of Health and Rehabilitative Services  
Office of Laboratory Services  
P.O. Box 210  
Jacksonville, Florida 32231

FOR LAB USE ONLY

DRINKING WATER BACTERIOLOGICAL ANALYSIS



SYSTEM NAME: 242 Village SYSTEM I.D. NO.: \_\_\_\_\_ DER DISTRICT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ COUNTY: Columbia COLLECTOR: P. Hays

SAMPLE SITE (Locality or Subdivision): C-242

RAW OR TREATED: R DATE AND TIME COLLECTED: 2/25/88 3:45

TYPE OF SUPPLY (Circle one): Community public water system Non-community public water system Other public water system  
Private well Swimming pool Bottled water

TYPE OF SAMPLE (Circle one): Compliance Recheck Main Clearance Well Survey Other (specify) \_\_\_\_\_

REMARKS: 21-122 40

TO BE COMPLETED BY COLLECTOR OF SAMPLE

COLL. NO.	SAMPLE POINT	CI RES'D	pH
9	Well		
10	Well		

TO BE COMPLETED BY LAB

SAMPLE NUMBER	NON COLIFORM (303)	COLIFORM		MPN 100 ML (305)
		MF/100 ML (303)	FECAL	
7030		<1		
7031		<1		

INTERPRETATIONS-RECOMMENDATIONS BY DER OR HRS REVIEWER

NAME AND MAILING ADDRESS OF PERSON/FIRM TO RECEIVE REPORT

COLUMBIA CPHU  
ENVIR. HEALTH SECTION  
ROOM 6, COURT HOUSE ANNEX  
LAKE CITY FLA 32055

Blanca R. Rodriguez, Engineer  
Dept. of Env. Regulation  
MAY 04 1988  
SATISFACTORY  
( ) UNSATISFACTORY  
( ) RE-SUBMIT

REVIEWING OFFICIAL: \_\_\_\_\_

TITLE: \_\_\_\_\_



SUMMARY LOG  
FOR  
BACTERIOLOGICAL EXAMINATION OF WATER

*Well Survey*

County: \_\_\_\_\_ Locality and Address: 242 Village

Source Name: \_\_\_\_\_

Type of Supply: 87/88 Owner and Address: \_\_\_\_\_

Date Col.	Date Tested	Lab No's	Other Information	Cl <sub>2</sub> Resd.	MPN or MF	Date Col.	Date Tested	Lab No's	Other Information	Cl <sub>2</sub> Resd.	MPN or MF
2-8	2-9	4143	well		<1	2-25	2-26	7696	well 3:45 PM	-	<1
		44	"		4			97	"	-	<1
2-9	2-10	5441	"		<1						
		42	"		<1						
2-10	2-11	5707	"	-	MC1						
		08	3 ml	-	MC1						
2-11	2-12	5870	"	-	<1						
		99	"	-	<1						
2-15	2-15	6115	9720 well		MC1						
		16	10720 "		MC1						
2-16	2-17	6336	11720 "		TNTC						
		37	12720 "		4						
2-17	2-18	6523	1300 well		MC1						
		24	14 "		MC1						
2-22	2-22	6806	15 "		MC1						
		07	16 "		MC1						
2-23	2-24	7196	17 "		MC1						
		97	18 "		MC1						
2-24	2-25	7445	19 "		MC1						
		46	20 "		<1						





# ABO Research

*Blanca*

p. o. box 1557 • gainesville, florida 32602 • phone 904-372-0436 • telex • 4930 335

Columbia Co

Report No. 014497

Subject: 242 VILLAGE WELL #1 3/23/88

Received: Thu Mar 24, 1988

Date Wed Mar 30, 1988

DHRS/DER #82135, E82031

HALL'S PUMP & WELL SERVICE  
1724 NORTH 1ST ST  
LAKE CITY, FL  
32055

SUPERCEEDS MAR 28, 1988 REPORT

## RESULTS OF ANALYSIS

88:14497-01 242 VILLAGE WELL #1 3/23/88  
Lead (AAS) 0.011 PPM  
Iron (AAS) <0.10 PPM

Respectfully submitted for A.B.C. Research

By

Karen Hatfield

Karen Hatfield

Page #1

Report ends.





Report No. 013541  
Subject: 242 VILLAGE SUB-DIVISION 2/8/88  
Received: Mon Feb 08, 1988

Date Mon Mar 28, 1988  
DHRS/DER #82135, E82031

HALL'S PUMP & WELL SERVICE  
1724 NORTH 1ST ST  
LAKE CITY, FL  
32055

## RESULTS OF ANALYSIS

88:13541-01 242 VILLAGE SUB-DIVISION WELL #1

SOC/VOC Testing	See Report
Methoxychlor	<1.0 PPb
Endrin	<.20 PPb
Lindane	<1.0 PPb
Toxaphene	<1.0 PPb
2,4-D	<1.0 PPb
2,4,5-TP	<1.0 PPb
Gross Alpha	1.6 +/- 1.4 pCi/l
Arsenic	3.2 PPb
Barium	<0.10 PPM
Cadmium (AAS)	<0.003 PPM
Chromium	<0.020 PPM
Lead (AAS)	0.11 PPM - SEE NEW ANALYSIS DATED MAR 3, 1988
Mercury	<0.5 PPb
Selenium	<2.0 PPb
Silver (AAS)	<0.010 PPM
Sodium	9.9 PPM
Nitrate nitrogen	0.59 mg/l as N
Flouride in water	0.28 PPM
Turbidity	0.51 NTU's
Chloride	4.3 mg/l
Color - water	<5 Color units
Copper (AAS)	0.40 PPM
Corrosivity	-0.23 LSI #
Total alkalinity	100 CaCO3 mg/l
PH	7.8 PH units
Dissolved solids	240 mg/l
Calcium (AAS)	35 PPM
Surfactants	0.036 mg/l as MBAS
Iron (AAS)	0.37 PPM - SEE NEW ANALYSIS DATED MAR 1988
Manganese (AAS)	0.013 PPM
Odor	<1 T.O.N.
Sulfate	5.5 mg/l
Zinc	1.5 PPM

Respectfully submitted for A.B.C. Research

By

Karen Hatfield





CUSTOMER  
SAMPLE/LOCATION

Halls Pump & Well Service  
242 Village Subdivision  
C. Rd. 242 Well # 1

ABC #1354-01  
DATE 2/10/88

RESULTS OF ANALYSIS

SOC/VOC

PAGE 1 OF 3

VOLATILE ORGANICS

DETECTION LIMIT  
ug/L (DL)

RESULT  
ug/L

1. Trichloroethylene	1	<DL
2. Tetrachloroethylene	1	<DL
3. Carbon Tetrachloride	1	<DL
4. Vinyl Chloride	1	<DL
5. 1,1,1-Trichloroethane	1	<DL
6. 1,2-Dichloroethane	1	<DL
7. Benzene	1	<DL
8. Ethylene dibromide	0.02	<DL

PURGEABLES

1. Acrolein	50	<DL
2. Acrylonitrile	50	<DL
3. Bromodichloromethane	1	<DL
4. Bromoform	1	<DL
5. Bromomethane	1	<DL
6. Chlorobenzene	1	<DL
7. Chloroethane	1	<DL
8. 2-Chloroethylvinyl ether	1	<DL
9. Chloroform	1	<DL
10. Chloromethane	1	<DL
11. Dibromochloromethane	1	<DL
12. Dichlorodifluoromethane	1	<DL
13. 1,1-Dichloroethane	1	<DL
14. 1,1-Dichloroethene	1	<DL
15. trans-1,3-Dichloropropene	1	<DL
16. 1,2-Dichloroethene	1	<DL
17. 1,2-Dichloropropane	1	<DL
18. cis-1,3-Dichloropropene	1	<DL
19. Ethyl benzene	1	<DL
20. Methylene chloride	10	<DL
21. 1,1,2-Trichloroethane	1	<DL
22. Trichlorofluoromethane	1	<DL
23. Toluene	2	<DL
24. Xylene	1	<DL
25. Styrene	1	<DL
26. Dichlorobenzene	1	<DL
27. 1,2-Dibromo-3-chloropropane	1	<DL
28. 1,1,2,2-Tetrachloroethane	1	<DL

Respectfully submitted for A.B.C. Research by

*Karen Hattfield*  
\_\_\_\_\_  
Karen Hattfield





CUSTOMER Halls Pump & Well Service  
 SAMPLE/LOCATION 242 Village Subdivision County Rd. 242 Well 1  
 ABC # 13541-01  
 DATE 3/25/88

PAGE 2 of 3

BASE NEUTRALS	DETECTION LIMIT (DL) ug/L	RESULT ug/L
1. Acenaphthene	5	<DL
2. Acenaphthylene	5	<DL
3. Anthracene	5	<DL
4. Benzo (a) anthracene	5	<DL
5. Benzo (b) fluoranthene	5	<DL
6. Benzo (k) fluoranthene	5	<DL
7. Benzo (a) pyrene	5	<DL
8. Benzo (g,h,i)perylene	5	<DL
9. Benzidene	50	<DL
10. Bis (2-chloroethyl) ether	5	<DL
11. Bis (2-chloroethoxy) methane	5	<DL
12. Bis (2-ethylhexyl) phthalate	10	<DL
13. Bis (2-chloroisopropyl) ether	5	<DL
14. 4-Bromophenyl phenyl ether	5	<DL
15. Butyl benzyl phthalate	10	<DL
16. 2-Chloronaphthalene	5	<DL
17. 4-Chlorophenyl phenyl ether	5	<DL
18. Chrysene	5	<DL
19. Dibenzo (a,h) anthracene	5	<DL
20. Di-n-butylphthalate	10	<DL
21. 1,3 Dichlorobenzene	5	<DL
22. 1,4 Dichlorobenzene	5	<DL
23. 1,2 Dichlorobenzene	5	<DL
24. 3,3 Dichlorobenzidene	20	<DL
25. Diethylphthalate	10	<DL
26. Dimethylphthalate	10	<DL
27. 2,4 Dinitrotoluene	5	<DL
28. 2,6 Dinitrotoluene	5	<DL
29. Dioctylphthalate	10	<DL
30. 1,2 Diphenylhydrazine	5	<DL
31. Fluoranthene	5	<DL
32. Flourene	5	<DL
33. Hexachlorobenzene	5	<DL
34. Hexachlorobutadiene	5	<DL
35. Hexachloroethane	5	<DL
36. Hexachlorocyclopentadiene	5	<DL
37. Indeno (1,2,3-cd) pyrene	5	<DL
38. Isophorone	5	<DL
39. Naphthalene	5	<DL
40. Nitrobenzene	5	<DL
41. N-Nitrosodimethylamine	50	<DL
42. N-Nitrosodi-n-propylamine	50	<DL
43. N-Nitrosodiphenylamine	5	<DL
44. Phenanthrene	5	<DL
45. Pyrene	5	<DL
46. 1,2,4-Trichlorobenzene	5	<DL
47. 2,3,7,8-Tetrachlorodibenzo- p-dioxin (Dioxin)	ND	ND





ACID EXTRACTABLES	DETECTION LIMIT (DL) ug/L	RESULT ug/L
1. 2-Chlorophenol	10	<DL
2. 2,4-Dichlorophenol	10	<DL
3. 2,4-Dimethylphenol	10	<DL
4. 2,4-Dinitrophenol	100	<DL
5. 2-Methyl-4,6-dinitrophenol	100	<DL
6. 4-Nitrophenol	10	<DL
7. Pentachlorophenol	10	<DL
8. Phenol	10	<DL
9. 2,4,6-Trichlorophenol	10	<DL
10. 4-Chloro-3-methylphenol	10	<DL
11. 2-Nitrophenol	10	<DL
PESTICIDES	DETECTION LIMIT (DL) ug/L	RESULT ug/L
1. Aldrin	5	<DL
2. a-BHC	5	<DL
3. b-BHC	5	<DL
4. g-BHC	5	<DL
5. d-BHC	5	<DL
6. Chlordane	5	<DL
7. 4,4'-DDD	5	<DL
8. 4,4'-DDE	5	<DL
9. 4,4'-DDT	5	<DL
10. Dieldrin	5	<DL
11. Endosulfan I	5	<DL
12. Endosulfan II	5	<DL
13. Endosulfan Sulfate	5	<DL
14. Endrin	5	<DL
15. Endrin aldehyde	5	<DL
16. Heptachlor	5	<DL
17. Heptachlor epoxide	5	<DL
18. Toxaphene	5	<DL
19. PCB-1016	5	<DL
20. PCB-1221	5	<DL
21. PCB-1232	5	<DL
22. PCB-1242	5	<DL
23. PCB-1248	5	<DL
24. PCB-1254	5	<DL
25. PCB-1260	5	<DL
26. Ethion	5	<DL
27. Trithion	5	<DL
28. o,p-DDT, DDE and DDD	5	<DL
29. Tedion	5	<DL
30. Aldicarb	10	<DL
31. Diazinon	5	<DL
32. Malathion	5	<DL
33. Parathion	5	<DL
34. Guthion	10	<DL
35. Dicofof	5	<DL





# Florida Department of Environmental Protection

Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, Florida 32256-7590  
Phone: 904/807-3300 ♦ Fax: 904/448-4366

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

June 21, 2010

SENT BY E-MAIL: [odie@targetleadership.com](mailto:odie@targetleadership.com)

Mr. Jeff Espenship,  
Consolidated Water Works  
4916 Shallow Creek Trail  
Kennesaw, Georgia 30144

Columbia County - Potable Water  
Iron and Manganese Sequestration  
Final Clearance  
Shady Oaks Subdivision WTP // PWS 2121023

Dear Mr. Espenship:

This acknowledges receipt of certification that the subject water system has been completed in accordance with the plans and related materials permitted by this agency under Permit Number **0299973-001-WCGP** issued **April 23, 2010**.

Because of the change in treatment, the public water system must collect lead and copper tap samples during two, consecutive 6-month periods immediately following the addition of a new source of water or any water treatment changes in accordance with 40 CFR 141, subpart I as referenced by Rule 62-550.800, F.A.C. The two six-month periods will be July - December of this year and January - June of 2011.

Based on this certification, we are clearing this facility for service. Your continued cooperation in our water supply program is appreciated.

Sincerely,

Blanche Waller, P.E.  
Potable Water Engineer

Permitting File  
cc: Mr. Daniel Houston, Operator, [[hughestowne@msn.com](mailto:hughestowne@msn.com)]





# Florida Department of Environmental Protection

Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, Florida 32256-7590  
Phone: 904/807-3300 ♦ Fax: 904/448-4366

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

**SENT BY E-MAIL**  
odie@targetleadership.com

Mr. Jeff Espenship  
Consolidated Water Works  
4916 Shallow Creek Trail  
Kennesaw, Georgia 30144

**Date:** April 23, 2010  
**County:** Columbia  
**Project:** Aqua Mag Addition  
**Water Plant (s):** Shady Oaks Subdivision  
**PWS ID:** 2121023

Re: General Permit Notice - File No. **0299973-001-WCGP**

Dear Mr. Espenship:

On **April 8, 2010**, the Florida Department of Environmental Protection received your "Notice of Intent to Use the General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium PWSs" {DEP Form No. 62-555.900(18)}, under the provisions of Florida Administrative Code (F.A.C.) Rule 62-4.530 and Chapter 62-555.

After reviewing the notice, it appears that your project will have minimal adverse environmental effect and apparently can be constructed pursuant to a general permit as described in Chapter 62-555, F.A.C.

Any activities performed under this general permit are subject to the general conditions required in Rules 62-4.540, F.A.C. (attached), and are also subject to the following specific conditions as required by Rule 62-555.405, F.A.C.

- (a) The water treatment plant to which this distribution system shall be connected shall have the capacity to provide the potable water demand required by this project which is in compliance with the standards and water quality set forth in Chapters 62-550, 62-555, and 62-560, F.A.C., for public water systems.
- (b) Prior to placing this project into service, Permittee shall submit a "Certification of Construction Completion and Request for a Letter of Clearance to Place a Public Drinking Water Facility into Service" {DEP Form 62-555.900(9)} along with a copy of two consecutive days of satisfactory bacteriological analytical results to the Department for evaluation and approval for operation, as provided in Rules 62-555.340 and 62-555.345, F.A.C. In order to facilitate the issuance of a letter of clearance, the Department requests that all of the above information be submitted as one package.



Assuming you have properly qualified for this general permit, please note that the permit expires on August 9, 2015. If you wish to continue this general permit beyond the expiration date, you shall notify the Department at least 30 days before its expiration.

Your construction activity must conform to the description contained in your notice. Any substantial deviation may subject the Permittee to enforcement action and possible penalties.

If you have any questions concerning the use of the general permit, please contact this office.

Sincerely,



Jeffrey S. Martin, P.E.  
Water Facilities

Electronic copies furnished to:  
Mr. Ronnie Hughes, Hughes well drilling

---

#### **General Conditions for All General Drinking Water Permits**

- (1) The terms, conditions, requirements, limitations, and restrictions set forth in this Part are "general permit conditions" and are binding upon the permittee. The conditions are enforceable under Chapter 403, F.S.
- (2) The general permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity shall constitute a violation of the permit. The permittee is placed on notice that violation of the permit may result in suspension or revocation of the permittee's use of the general permit and may cause the Department to begin legal proceedings.
- (3) The general permit does not convey any vested rights or any exclusive privileges. It does not authorize any injury to public or private property nor any invasion of personal rights. It does not authorize any infringement of federal, state or local laws or regulations. It does not eliminate the necessity for obtaining any other federal, state or local permits that may be required, or allow the permittee to violate any more stringent standards established by federal or local law.
- (4) The general permit does not relieve the permittee from liability and penalties when the construction or operation of the permitted activity causes harm or injury to human health or welfare; causes harm or injury to animal, plant or aquatic life; or causes harm or injury to



property. It does not allow the permittee to cause pollution in contravention of Florida Statutes and Department rules.

(5) The general permit conveys no title to land or water, nor does it constitute State recognition or acknowledgment of title. It does not constitute authority for reclamation of submerged lands. Only the Board of Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

(6) No general permit shall authorize the use of state owned land without the prior consent of the Board of Trustees of the Internal Improvement Trust Fund pursuant to Section 253.77, F.S.

(7) The general permit may be modified, suspended or revoked in accordance with Chapter 120, Florida Statutes, if the Secretary determines that there has been a violation of any of the terms or conditions of the permit, there has been a violation of state water quality standards or state air quality standards, or the permittee has submitted false, incomplete or inaccurate data or information.

(8) The general permit shall not be transferred to a third party except pursuant to Rule 62-4.120, F.A.C.

(9) The general permit authorizes construction and, where applicable, operation of the permitted facility.

(10) The permittee agrees in using the general permit to make every reasonable effort to conduct the specific activity or construction authorized by the general permit in a manner that will minimize any adverse effects on the adjacent property or on public use of the adjacent property, where applicable, and on the environment, including fish, wildlife, natural resources of the area, water quality or air quality.

(11) The permittee agrees in using the general permit to allow a duly authorized representative of the Department access to the permitted facility or activity at reasonable times to inspect and test upon presentation of credentials or other documents as may be required by law to determine compliance with the permit and the department rules.

(12) The permittee agrees to maintain any permitted facility, or activity in good condition and in accordance with the plans submitted to the department under Rule 62-4.530(1), F.A.C.

(13) A permittee's use of a general permit is limited to five years. However, the permittee may request continued use of the general permit by notifying the department pursuant to Rule 62-4.530(1), F.A.C. However, the permittee shall give notice of continued use of a general permit thirty days before it expires.





# NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF LEAD OR COPPER CORROSION CONTROL, OR IRON OR MANGANESE SEQUESTRATION, TREATMENT FACILITIES FOR SMALL OR MEDIUM PWSs

INSTRUCTIONS: This notice shall be completed and submitted by small or medium public water systems (i.e., public water systems serving less than or equal to 50,000 people) proposing to construct projects permitted under the "General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium Public Water Systems" in Rule 62-555.401, F.A.C. AT LEAST 30 DAYS BEFORE BEGINNING CONSTRUCTION OF A LEAD OR COPPER CORROSION CONTROL, OR IRON OR MANGANESE SEQUESTRATION, TREATMENT FACILITY PROJECT, complete and submit one copy of this notice to the appropriate Department of Environmental Protection (DEP) District Office or Approved County Health Department (ACHD) along with payment of the proper permit processing fee. (When completed, Part II of this notice serves as a preliminary design report for a lead or copper corrosion control, or iron or manganese sequestration, treatment facility project, and thus, it is unnecessary to submit a separate preliminary design report or drawings, specifications, and design data with this notice.) All information provided on this notice shall be typed or printed in ink. The DEP permit processing fee for projects requiring the services of a professional engineer during design is \$250, and the DEP permit processing fee for projects not requiring the services of a professional engineer during design is \$100.\* Some ACHDs charge a county permit processing fee in addition to the DEP permit processing fee. Checks for permit processing fees shall be made payable to the Department of Environmental Protection or the appropriate ACHD. NOTE THAT A SEPARATE NOTIFICATION AND A SEPARATE PERMIT PROCESSING FEE ARE REQUIRED FOR EACH NON-CONTIGUOUS PROJECT.†

\* Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers licensed in Florida.

† Non-contiguous projects are projects that are neither interconnected nor located nearby one another (i.e., on the same site, on adjacent streets, or in the same neighborhood).

## I. General Project Information

A. Name of Project: Shady Oaks

B. Description of Project and Its Purpose: The addition of Aqua Mag to sequester Iron.

## C. Location of Project

1. County Where Project Located: Columbia.

2. Description of Project Location: West of Hwy 247 and just North of Hwy 242 on Stevens Rd. East of Birley

D. Estimate of Cost to Construct Project: \$1200

E. Estimate of Dates for Starting and Completing Construction of Project: April 1, 2010

## F. Permittee (and Public Water System [PWS] that Will Own Project After It Is Placed into Permanent Operation)

PWS Name: <u>Consolidated Water</u>		PWS Identification No.: <u>2121023</u>	
PWS Size: <input type="checkbox"/> Small (serving < 3,300 people) <input type="checkbox"/> Medium (serving > 3,300 and < 50,000 people)			
PWS Type: <input checked="" type="checkbox"/> Community <input type="checkbox"/> Non-Transient Non-Community <input type="checkbox"/> Transient Non-Community <input type="checkbox"/> Consecutive			
PWS Owner: <u>Jack Espenship</u>			
Contact Person: <u>Daniel Houston</u>		Contact Person's Title: <u>operator</u>	
Contact Person's Mailing Address: <u>P.O. Box 3695</u>			
City: <u>Lake City</u>		State: <u>FL</u>	Zip Code: <u>32056</u>
Contact Person's Telephone Number: <u>(886) 984-0752</u>		Contact Person's Fax Number:	
Contact Person's E-Mail Address: <u>hughestowne @ msn. com</u>			

Received

APR 07 2010

FDEP

DEP  
NORTHEAST DISTRICT  
RECEIVED  
APR 22 2010 PM 3:41



**NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF LEAD OR COPPER CORROSION CONTROL, OR IRON OR MANGANESE SEQUESTRATION, TREATMENT FACILITIES FOR SMALL OR MEDIUM PWSs**

Project Name: Shady Oaks Permittee: shady oaks

**G. Professional Engineer(s) or Other Person(s) in Responsible Charge of Designing Project\***

Company Name: <u>Hughes Well Drilling</u>	
Designer(s): <u>Ronnie Hughes</u>	Title(s) of Designer(s): <u>owner</u>
Qualifications of Designer(s):	
<input type="checkbox"/> Professional Engineer(s) Licensed in Florida – License Number(s): _____	
<input type="checkbox"/> Public Officer Employed by State, County, Municipal, or Other Governmental Unit of State†	
<input checked="" type="checkbox"/> Plumbing Contractor(s) Licensed in Florida – License Number(s): <u>2622</u>	
Mailing Address of Designer(s): <u>12367 N US Hwy 441</u>	
City: <u>Lake City</u>	State: <u>FL</u> Zip Code: <u>32055</u>
Telephone Number of Designer(s): <u>(386) 252-1840</u>	Fax Number of Designer(s): _____
E-Mail Address(es) of Designer(s): <u>lwgwell1840@aol.com</u>	

\* Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers licensed in Florida.

† Attach a detailed construction cost estimate showing that the cost to construct this project is \$10,000 or less.

^ Attach documentation showing that this project will be installed by the plumbing contractor(s) designing this project, documentation showing that this project involves a public water system serving a single property and fewer than 250 fixture units, and a detailed construction cost estimate showing that the cost to construct this project is \$50,000 or less.

**II. Preliminary Design Report for Project**

**A. Existing Facilities**

1. Water Treatment Plant Where New or Altered Lead or Copper Corrosion Control Treatment Facilities or Iron or Manganese Sequestration Treatment Facilities Will Be Constructed: shady oaks

- Design Maximum Day Capacity of Plant, gpd: \_\_\_\_\_  
Design Peak Capacity of Plant (if Applicable), gpd: \_\_\_\_\_  
Permitted Maximum Day Operating Capacity of Plant, gpd: \_\_\_\_\_  
Permitted Peak Operating Capacity of Plant (if Applicable), gpd: \_\_\_\_\_
- Water Source(s) for Plant: #1 well 10 hp #2 well 5 hp.
- Type of Treatment Provided, Including Type of Chemicals Fed, at Plant: chlorine-liquid stenner pump.
- Number and Capacity of Finished Water Pumps (if Applicable): same as b.

**2. Other Interconnected Water Treatment Plants Providing Lead or Copper Corrosion Control Treatment:**

Plant Name	Type of Lead or Copper Corrosion Control Treatment Provided

**B. Water Quality Data and Selected Treatment**

**1. Water Quality Data**



**NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF LEAD OR  
COPPER CORROSION CONTROL, OR IRON OR MANGANESE SEQUESTRATION, TREATMENT  
FACILITIES FOR SMALL OR MEDIUM PWSs**

Project Name: Shady Oaks Permittee: consolidated water

a. Water Quality Data for Lead or Copper Corrosion Control Treatment: N/A

Water Quality at Entry to Distribution System			Water Quality at Taps			
Parameter	Minimum Value	Maximum Value	Parameter	90th Percentile	Minimum Value	Maximum Value
Lead, mg/L			Lead, mg/L			
Copper, mg/L			Copper, mg/L			
Alkalinity, mg/L as CaCO <sub>3</sub>			Alkalinity, mg/L as CaCO <sub>3</sub>			
Calcium, mg/L as Ca			Calcium, mg/L as Ca			
Conductivity, µmho/cm @ 25° C			Conductivity, µmho/cm @ 25° C			
Orthophosphate <sup>†</sup> , mg/L as P			Orthophosphate <sup>†</sup> , mg/L as P			
pH			pH			
Silicate <sup>^</sup> , mg/L as SiO <sub>2</sub>			Silicate <sup>^</sup> , mg/L as SiO <sub>2</sub>			
Temperature, °C			Temperature, °C			

<sup>†</sup> Measure orthophosphate when a phosphate-based corrosion inhibitor is used.

<sup>^</sup> Measure silicate when a silicate-based corrosion inhibitor is used.

b. Water Quality Data for Iron or Manganese Sequestration Treatment:

Water Quality at Entry to Distribution System		
Parameter	Minimum Value	Maximum Value
Iron, mg/L		
Manganese, mg/L		
Silicate <sup>†</sup> , mg/L as SiO <sub>2</sub>		

<sup>†</sup> Measure silicate if sodium silicates will be used to sequester iron or manganese.

2. Selected Treatment Based Upon the Above Water Quality Data

a. Selected Treatment for Lead or Copper Corrosion Control Treatment:

☐ Alkalinity and pH Adjustment

Target pH: \_\_\_\_\_ Target Alkalinity, mg/L as CaCO<sub>3</sub>: \_\_\_\_\_

Chemical to Be Added: \_\_\_\_\_ Chemical Dose, mg/L: \_\_\_\_\_

☐ Calcium Hardness Adjustment

Target Calcium Concentration, mg/L Ca: \_\_\_\_\_

Chemical to Be Added: \_\_\_\_\_ Chemical Dose, mg/L: \_\_\_\_\_

☐ Phosphate-Based Corrosion Inhibitor

Chemical to Be Added: \_\_\_\_\_ Chemical Dose, mg/L: \_\_\_\_\_

Target Residual, mg/L Orthophosphate as P: \_\_\_\_\_

☐ Silicate-Based Corrosion Inhibitor

Chemical to Be Added: \_\_\_\_\_ Chemical Dose, mg/L: \_\_\_\_\_

Target Residual, mg/L as SiO<sub>2</sub>: \_\_\_\_\_

b. If There Are Other Interconnected Water Treatment Plants Providing Lead or Copper Corrosion Control Treatment Different from the Selected Lead or Copper Corrosion Control Treatment, Explanation of How the Different Treatments Are Compatible:

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c. Selected Treatment for Iron or Manganese Sequestration Treatment:

☒ Sequestration by Polyphosphates

Chemical to Be Added: Aqua mag Attached A: 1, 2 and 3

Chemical Dose, mg/L of phosphate as PO<sub>4</sub>: \_\_\_\_\_

☐ Sequestration by Sodium Silicates

Chemical to Be Added: \_\_\_\_\_

Chemical Dose, mg/L of silicate as SiO<sub>2</sub>: \_\_\_\_\_

Added Plus Naturally Occurring Silicate, mg/L as SiO<sub>2</sub>: \_\_\_\_\_

C. Project Site Information

- ATTACH A SITE PLAN OR SKETCH SHOWING THE APPROXIMATE LOCATION OF NEW OR ALTERED CHEMICAL TANKS, FEEDERS, PIPING, AND APPLICATION POINTS IN RELATIONSHIP TO EXISTING STRUCTURES, EQUIPMENT, AND CHEMICAL APPLICATION POINTS AND SHOWING THE CAPACITY OR SIZE OF NEW OR ALTERED CHEMICAL TANKS, FEEDERS, AND PIPING.



**NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF LEAD OR COPPER CORROSION CONTROL, OR IRON OR MANGANESE SEQUESTRATION, TREATMENT FACILITIES FOR SMALL OR MEDIUM PWSs**

Project Name: Shady Oaks Permittee: Consolidated Water

2. Description of How Existing and New Structures and Mechanical and Electrical Equipment at Altered Water Treatment Plant Will Be Protected from Physical Damage by the 100-Year Flood and Wave Action and Will Remain Fully Operational and Accessible During the 10- to 25-Year Flood and Wave Action (Applicable Only for Community Water Systems):

Not in Flood Area. Equipment will be in Building.

3. Description of Security Features for Altered Water Treatment Plant:

Fenced and Locked.

4. Description of Provisions for Standby Power at Altered Water Treatment Plant (Applicable Only for Community Water Systems Serving, or Designed to Serve, 150 or More Persons or 350 or More Service Connections):

portable generator

**D. Operation and Control Strategies and Instrumentation and Control Systems**

1. Description of Operation and Control Strategies and Instrumentation and Control Systems, Including Monitoring or Alarm Systems, for New or Altered Lead or Copper Corrosion Control Treatment Facilities or Iron or Manganese Sequestration Treatment Facilities:

plant is monitored by licensed operator 3 times per week. Maintenance is available 7 days a week phones are monitored 7 days-24hrs additional personnel on standby

**E. Information About Compliance with Design and Construction Requirements**

1. If this project is being designed to comply with the following requirements, initial in ink before the requirements. If any of the following requirements do not apply to this project or if this project includes exceptions to any of the following requirements as allowed by rule, mark "X" before the requirements and complete Part II.E.2 below. *RSWW* = *Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C.

N/A

- a. If this project includes lead or copper corrosion control treatment facilities, the selected treatment is consistent with the guidance and recommendations in the *Lead and Copper Guidance Manual, Volume II: Corrosion Control Treatment* as adopted in Rule 62-555.335. [FAC 62-555.401(1)(b)]

DP

- b. If this project includes iron or manganese sequestration by polyphosphate, the maximum concentration of iron plus manganese to be sequestered does not exceed 1.0 mg/L, and the total phosphate applied will not exceed 10 mg/L as PO<sub>4</sub>. [FAC 62-550.325(1)]

DA

- c. If this project includes iron or manganese sequestration by polyphosphate, polyphosphate will not be applied ahead of iron or manganese removal treatment, and the point of polyphosphate application will be prior to any aeration, oxidation, or disinfection treatment if no iron or manganese removal treatment is provided. [RSWW 4.6.5.c; exceptions allowed under FAC 62-555.330]

N/A

- d. If this project includes iron or manganese sequestration by sodium silicate, the water to be treated is ground water, the maximum concentration of iron plus manganese to be sequestered does not exceed 2 mg/L, the amount of silicate added will be limited to 20 mg/L as SiO<sub>2</sub>, and the amount of added plus naturally occurring silicate will not exceed 60 mg/L as SiO<sub>2</sub>. [FAC 62-550.325(2)]

N/A

- e. If this project includes iron or manganese sequestration by sodium silicate, the point of sodium silicate application will be prior to any air contact; rapid oxidation of the metal ions, such as by chlorine or chlorine dioxide, will accompany or closely precede sodium silicate addition; and sodium silicate will not be applied ahead of iron or manganese removal treatment. [RSWW 4.6.6; exceptions allowed under FAC 62-555.330]

DP

- f. This project is being designed to keep existing public water system components in operation during construction or to minimize interruption of water service during construction. [RSWW 1.3.a; exceptions allowed under FAC 62-555.330]

DP

- g. All drinking water treatment chemicals obtained under this project will conform to NSF Standard 60 as adopted in Rule 62-555.335, F.A.C., or other applicable standards referenced in paragraph 62-555.320(3)(a), F.A.C. [FAC 62-555.320(3)(a)]



## FACILITIES FOR SMALL OR MEDIUM PWSs

Project Name: Shady Oaks

Permittee: Consolidated water.

- Page 5



**NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF LEAD OR  
COPPER CORROSION CONTROL, OR IRON OR MANGANESE SEQUESTRATION, TREATMENT  
FACILITIES FOR SMALL OR MEDIUM PWSs**

Project Name: Shady Oaks Permittee: Consolidated Water

- DN y. New or altered chemical-feed equipment included in this project will be readily accessible for servicing, repair, and observation of operation. [RSWW 5.1.7.a; exceptions allowed under FAC 62-555.330]
- NA z. Water service lines discharging to new or altered solution tanks included in this project will be provided with means for measuring water when preparing specific solution concentrations by dilution. [RSWW 5.1.8.b; exceptions allowed under FAC 62-555.330]
- DN aa. New or altered, liquid-chemical storage tanks included in this project will be for use with just one chemical and not different chemicals. [RSWW 5.1.9.b; exceptions allowed under FAC 62-555.330]
- DN bb. Chemicals addressed under this project will be stored in covered or unopened shipping containers unless they will be transferred into appropriate storage tanks. [RSWW 5.1.9.c; exceptions allowed under FAC 62-555.330]
- DN cc. New or altered, liquid-chemical storage tanks included in this project will have a liquid-level indicator and will have an overflow and receiving basin capable of receiving accidental spills or overflows without uncontrolled discharge. [RSWW 5.1.9.d; exceptions allowed under FAC 62-555.330]
- NA dd. Day tanks will be provided where bulk storage of liquid chemical is provided under this project. [RSWW 5.1.11.a; exceptions allowed under FAC 62-555.330]
- NA ee. A means that is consistent with the nature of the chemical solution will be provided to maintain a uniform strength of solution in new or altered solution or day tanks included in this project. (Continuous agitation will be provided to maintain slurries in suspension.) [RSWW 5.1.10.a & 5.1.11.f; exceptions allowed under FAC 62-555.330]
- DN ff. New or altered solution or day tanks included in this project will be kept covered. (Large tanks with access openings will have the openings curbed and fitted with overhanging covers.) [RSWW 5.1.10.d & 5.1.11.b; exceptions allowed under FAC 62-555.330]
- NA gg. Subsurface locations for new or altered solution or day tanks included in this project will be free from sources of possible contamination and will be provided with positive drainage for ground water, accumulated water, and chemical spills and overflows. [RSWW 5.1.10.e & 5.1.11.b; exceptions allowed under FAC 62-555.330]
- NA hh. New or altered, acid-containing solution or day tanks included in this project will be vented individually to the outside atmosphere and not through common vents. [RSWW 5.1.10.g & 5.1.11.b; exceptions allowed under FAC 62-555.330]
- NA ii. New or altered solution or day tanks included in this project will be provided with a valved drain. [RSWW 5.1.10.h & 5.1.11.b; exceptions allowed under FAC 62-555.330]
- DN jj. New or altered solution or day tanks included in this project will be located, and protective curbing will be provided, so that chemicals from equipment failure, spillage, or accidental drainage will not enter the water in conduits or treatment or storage basins. [RSWW 5.1.10.i & 5.1.11.b; exceptions allowed under FAC 62-555.330]
- DN kk. A means will be provided to measure the liquid level in new or altered solution tanks included in this project. [RSWW 5.1.10.c; exceptions allowed under FAC 62-555.330]
- NA ll. New or altered day tanks included in this project will be scale-mounted, will have a calibrated gauge painted or mounted on the side if liquid level can be observed through a translucent sidewall or in a gauge tube, or will have a gauge rod attached to a float and extending above a reference point. (The ratio of the area of day tanks to their height will be such that unit readings are meaningful in relation to the total amount of chemical fed during a day.) [RSWW 5.1.11.d; exceptions allowed under FAC 62-555.330]
- NA mm. If this project includes new or altered, motor-driven transfer pumps for transfer of chemicals to day tanks, a liquid-level limit switch will be provided for the transfer pumps, and an overflow will be provided for the day tanks. [RSWW 5.1.11.e; exceptions allowed under FAC 62-555.330]
- DN nn. New or altered day tanks included in this project, and refilling line entry points for such tanks, will be clearly labeled with the name of the chemical contained. [RSWW 5.1.11.g; exceptions allowed under FAC 62-555.330]
- DN oo. New or altered chemical-feed lines included in this project are being designed consistent with scale-forming or solids-depositing properties of the chemical or solution conveyed. [RSWW 5.1.12.g; exceptions allowed under FAC 62-555.330]
- DN pp. For chemicals addressed under this project, carts, elevators, and other appropriate means will be provided for lifting chemical containers to minimize excessive lifting by operators. [RSWW 5.1.13.a; exceptions allowed under FAC 62-555.330]
- NA qq. For dry chemicals addressed under this project, provisions will be made for proper transfer of the chemicals from shipping containers to storage bins or hoppers in such a way as to minimize the quantity of dust that will enter the room in which the storage bins or hoppers are installed. [RSWW 5.1.13.c; exceptions allowed under FAC 62-555.330]
- DN rr. For chemicals addressed under this project, provisions will be made for measuring quantities of chemicals used to prepare feed solutions. [RSWW 5.1.13.d; exceptions allowed under FAC 62-555.330]
- DN ss. Floor surfaces in rooms housing new or altered chemical application facilities included in this project will be smooth, impervious, slip-proof, and well drained with a minimum slope of three inches per ten feet. [RSWW 5.1.14.a; exceptions allowed under FAC 62-555.330]



**NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF LEAD OR  
COPPER CORROSION CONTROL, OR IRON OR MANGANESE SEQUESTRATION, TREATMENT  
FACILITIES FOR SMALL OR MEDIUM PWSs**

Project Name: Shady Oaks Permittee: Consolidated Water

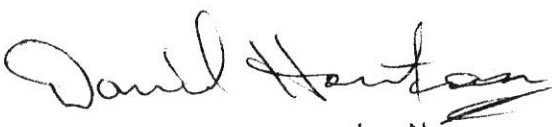
- NA tt. Vents from new or altered chemical feeders, storage facilities, or exhaust equipment included in this project will discharge to the outside atmosphere above grade and remote from air intakes. [RSWW 5.1.14.b; exceptions allowed under FAC 62-555.330]
- DD uu. Acid or caustic chemicals addressed under this project will be kept in closed corrosion-resistant shipping containers or storage units. [RSWW 5.4.2.a; exceptions allowed under FAC 62-555.330]
- DD vv. Acid or caustic chemicals addressed under this project will not be handled in open vessels. [RSWW 5.4.2.b; exceptions allowed under FAC 62-555.330]
- DD ww. Appropriate safety or protective equipment will be provided in accordance with Table 15.5 in *Water Treatment Plant Design* as incorporated into Rule 62-555.330, F.A.C.. [FAC 62-555.330]
- DD xx. New or altered water treatment facilities, including chemical application facilities, and new or altered treatment plant process piping conveying either raw, partially treated, or finished drinking water will be disinfected and bacteriologically evaluated in accordance with Rule 62-555.340, F.A.C. (Disinfection is not required for treatment facilities and treatment plant process piping that normally are treating or conveying surface water, or ground water under the direct influence of surface water, and that are located upstream of all filtration and disinfection treatment facilities.) [FAC 62-555.340]
- DD yy. New or altered chemical storage tank systems that are included in this project and that are subject to regulation under Chapter 62-761, F.A.C., will meet applicable performance standards in Chapter 62-761, F.A.C. [FAC 62-761]

2. Explanation for Requirements Marked "X" in Part II.E.1 Above, Including Justification, Documentation, Assurances, and/or Alternatives as Required by Rule for Exceptions to Requirements in Part II.E.1: Items marked

NA: do not apply.

see Attached C

I completed Part II of this notice, and the information provided in Part II and on the attachment(s) to Part II is true and accurate to the best of my knowledge and belief.

Signature, Seal, and Date of Professional Engineer (PE) <u>or</u> Signature and Date of Other Person in Responsible Charge of Designing Project:*   Printed/Typed Name: <u>Daniel Houston</u> License Number of PE <u>or</u> License Number or Title of Other Person in Responsible Charge of Designing Project:* <u>C-006223 operator.</u> Portion of Preliminary Design Report for Which Responsible:	Signature, Seal, and Date of Professional Engineer (PE) <u>or</u> Signature and Date of Other Person in Responsible Charge of Designing Project:*   Printed/Typed Name: License Number of PE <u>or</u> License Number or Title of Other Person in Responsible Charge of Designing Project:* Portion of Preliminary Design Report for Which Responsible:
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**NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF LEAD OR  
COPPER CORROSION CONTROL, OR IRON OR MANGANESE SEQUESTRATION, TREATMENT  
FACILITIES FOR SMALL OR MEDIUM PWSs**

Project Name: Shady oaks Permittee: Consolidated water

\* Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more PEs licensed in Florida. If this project is being designed under the responsible charge of one or more PEs licensed in Florida, Part II of this notice shall be completed, signed, sealed, and dated by the PE(s) in responsible charge. If this project is not being designed under the responsible charge of one or more PEs licensed in Florida, Part II shall be completed, signed, and dated by the person(s) in responsible charge of designing this project.

**III. Certifications**

**A. Certification by Permittee (and PWS that Will Own Project After It Is Placed into Permanent Operation)**

I am duly authorized to sign this notice on behalf of the permittee identified in Part I.F of this notice. I certify that, to the best of my knowledge and belief, this project complies with Chapter 62-555, F.A.C., and provides assurance of compliance with Chapter 62-550, F.A.C. I also certify that construction of this project has not begun yet.

I understand that, if this project is designed under the responsible charge of one or more professional engineers licensed in Florida, the permittee must retain a Florida-licensed professional engineer to take responsible charge of inspecting construction of this project for the purpose of determining in general if the construction proceeds in compliance with the Department of Environmental Protection construction permit, including the approved preliminary design report, for this project. I understand that the permittee must have complete record drawings prepared for this project and must provide an operation and maintenance manual for the lead or copper corrosion control, or iron or manganese sequestration, treatment facilities constructed under this project. I also understand that the permittee must submit a certification of construction completion to the Department and obtain written approval, or clearance, from the Department before the permittee places this project into operation for any purpose other than disinfection, testing for leaks, or testing equipment operation.

Daniel Houston Daniel Houston operator  
Signature and Date 3-22-10 Printed or Typed Name Title

**B. Certification by Professional Engineer(s) in Responsible Charge of Designing Project\***

I, the undersigned professional engineer licensed in Florida, am in responsible charge of designing this project. I certify that, to the best of my knowledge and belief, the design of this project complies with Chapter 62-555, F.A.C., and provides assurance of compliance with Chapter 62-550, F.A.C.

Signature, Seal, and Date:	Signature, Seal, and Date:
Printed/Typed Name:	Printed/Typed Name:
License Number:	License Number:
Portion of Preliminary Design Report for Which Responsible:	Portion of Preliminary Design Report for Which Responsible:

\* Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers (PEs) licensed in Florida. If this project is being designed under the responsible charge of one or more PEs licensed in Florida, Part III.D of this notice shall be completed by the PE(s) in responsible charge. If this project is not being designed under the responsible charge of one or more PEs licensed in Florida, Part III.D does not have to be completed.



## Potable Water Permit Routing Slip

Columbia County – Potable Water

Facility Name: **Shady Oaks Subdivision**

PWS No: **2121023**

File Location: N:/PW/2010/Columbia/2121023 Shady Oaks


Subdivision/Permitting/P0299973-001-WCGP (Aqua Mag Addition)

**Summary:** The purpose of the project is to inject Aqua Mag" poly-phosphate feed system for iron control. The Aqua Mag will be injected at the East and West well. The capacity for each of the wells is 216,000 gpd. The permitted maximum day operating capacity of the water treatment plant (WTP) will be 74,000 gpd.

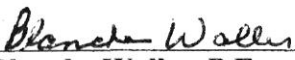
☒ Permit  
N/A ☐ PW P.E. Certification  
*Plumber submitted*

☐ ERCs (current/proposed): /  
☐ Other: 74,000 gpd

Please sign and date after your review

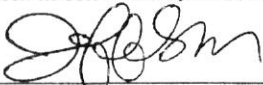
  
Arturo Aranda  
Engineering Reviewer

04 / 22 / 10  
Date

  
Blanche Waller, P.E.  
PW Permitting Coordinator  
*Check in box authorizes electronic signature*



4 / 22 / 10  
Date

  
Jeffrey S. Martin, P.E.  
Water Facilities  
*Check in box authorizes electronic signature*



4 / 22 / 2010  
Date

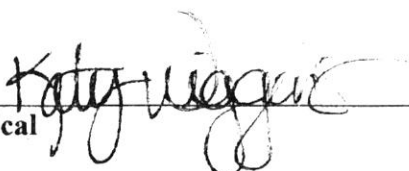
N/A ☐  
Melissa M. Long, P.E.  
WF Administrator  
*Check in box authorizes electronic signature*



/ /  
Date

☐

/ /  
Date

  
Clerical

4 / 23 / 2010  
Date



A-1

**DAVE SYMONDS & ASSOCIATES, INC.**

March 12, 2010

**Received**

36730 EMERALDA ISLAND RD.  
 LEESBURG, FLORIDA 34788  
 (352) 787-0340 or 1-800-226-0340  
 FAX (352) 787-0823

Suwannee River Utilities  
 P.O. Box 3695  
 Lake City, FL 32056

APR 07 2010

**FDEP**

Att: Dan Houston

Ref: Aqua Mag water treatment recommendations per Carus Laboratory analysis of  
 2/23/10 for corrosion control, iron control, lead & copper leaching and for pH stabilization.

West Well	Hardness	99.8 mg/L
	Iron as Fe	0.03 mg/L
	Manganese	0.01 mg/L

Hardness Treatment Requirement:  
 (.75 mg/L as PO4 to 171 mg/L hardness)

<u>Hardness X .75 =</u>	0.438	0.438 mg/L as PO4
171		

Mineral Treatment Requirement:  
 (.5 mg/L as PO4 to each part Fe + MN)

<u>Iron + Manganese =</u>	0.02	<u>0.020 mg/L as PO4</u>
2		0.46 total mg/L as PO4

**In one million gallons of water treated, 4.61 gallons of Aqua Mag will test at 1.0 mg/L as P**

Total mg/L as PO4 X 4.61 = gallons of Aqua Mag  
 per million gallons of water treated. = 2.11

Stenner 45MHP2 3 (GPD Max)  
 feed pump calculations as follows:

Well pump rating GPM 150 (GPM)

<u>Aqua Mag X GPM X 1440 =</u>	0.46 gallons per day.	(1440 min in a day)
1 MG		

<u>GPday =</u>	0.152	15.19% (setting)
pump size		



Sincerely,

Fred Symonds



A-2

# DAVE SYMONDS & ASSOCIATES, INC.

March 12, 2010

36730 EMERALDA ISLAND RD.  
LEESBURG, FLORIDA 34788  
(352) 787-0340 or 1-800-226-0340  
FAX (352) 787-0823

Suwannee River Utilities  
P.O. Box 3695  
Lake City, FL 32056

Att: Dan Houston

Ref: Aqua Mag water treatment recommendations per Carus Laboratory analysis of 2/23/10 for corrosion control, iron control, lead & copper leaching and for pH stabilization.

East Well	Hardness	100.1 mg/L
	Iron as Fe	0.02 mg/L
	Manganese	0.01 mg/L

Hardness Treatment Requirement:  
(.75 mg/L as PO4 to 171 mg/L hardness)

$\frac{\text{Hardness} \times .75}{171} =$	0.439	0.439 mg/L as PO4
--	-------	-------------------

Mineral Treatment Requirement:  
(.5 mg/L as PO4 to each part Fe + MN)

$\frac{\text{Iron} + \text{Manganese}}{2} =$	0.015	$\frac{0.015 \text{ mg/L as PO4}}{0.45 \text{ total mg/L as PO4}}$
--	-------	--

**In one million gallons of water treated, 4.61 gallons of Aqua Mag will test at 1.0 mg/L as P**

Total mg/L as PO4 X 4.61 = gallons of Aqua Mag  
per million gallons of water treated. = 2.09

Stenner 45MHP2 3 (GPD Max)  
feed pump calculations as follows:

Well pump rating GPM 150 (GPM)

$\frac{\text{Aqua Mag X GPM X 1440}}{1 \text{ MG}} =$	0.45 gallons per day.	(1440 min in a day)
---	-----------------------	---------------------

$\frac{\text{GPday}}{\text{pump size}} =$	0.151	15.07% (setting)
---	-------	------------------



Sincerely,

Fred Symonds



A-3

Carus Corporation  
1500 8th Street  
LaSalle, IL 61301

CARUS®

Suwannee River Utilities  
P.O. Box 3695  
Lake City, FL 32056  
Dan Houston

Date Received: 2/22/2010  
Date Analyzed: 2/23/2010  
Lab Number: 0222-04741  
Number of Samples: 2  
Tests per Sample: 6

cc: Dave Symonds  
Symonds & Associates/Aqua Products Inc.  
36730 Emerald Island Road  
Leesburg, FL 34788

**SAMPLE INFORMATION**

	Sample Site	Date	Time	Sampler
A	West Well - 10HP	2/17/2010		Fred Symonds
B	East Well - 5HP	2/17/2010		Fred Symonds
C				
D				
E				
F				
G				

**RESULTS**

Parameter	A	B	C	D	E	F	G	Units
Hardness	99.8	100.1						mg/L as CaCO3
Orthophosphate	0.19	0.29						mg/L as PO4
Iron	0.03	<0.02						mg/L
Manganese	<0.01	<0.01						mg/L
Copper								mg/L
Lead								mg/L
Initial Temp.								Celsius
Initial pH								
Final Temp.								Celsius
Final pH	8.0	7.8						
Alkalinity								mg/L as CaCO3
Calcium	37.9	37.1						mg/L
Zinc								mg/L
Conductivity								umhos/cm
Chloride								mg/L
Sulfate								mg/L
TDS								mg/L
Total Phosphate								mg/L as PO4

Comments:

Note: These results are for monitoring purposes only. They cannot be used for compliance reporting.  
Tina Garcia, Water Treatment Technician  
Tel (815) 224-6880



## Attaced C:

Part 2. b: No Lead & Copper control needed.

E; 1. a: No Lead & Copper control needed.

d: No Sodium Silicate will be used.

e: No Sodium Silicate will be used.

k: No Stock Phosphate will be used

p: No automatic controls will be used

u: No dry-chemical feeders will be used

z: No mixing of chemicals are needed

dd: No bulk storage is needed

ee: Solution won't need mixing (no long storage time)

gg: No sub storage

hh: No acid containing solutions

ii: No day tanks being used

ll: No day tanks being used

mm: No day tanks being used

qq: No dry chemicals needed

tt: None needed





# AQUA MAG<sup>®</sup> BLENDED PHOSPHATE

EC- SAFETY DATA SHEET according to EC directive 2001/58/EC  
MATERIAL SAFETY DATA SHEET

Page 1 of 5

MSDS # CP-343

Revision Date: January 2009

Supersedes: October 2007

## Section 1 Chemical Product and Company Identification

<b>Product Name:</b>	AQUA MAG <sup>®</sup> Blended Phosphate
<b>Trade Name:</b>	AQUA MAG <sup>®</sup> Blended Phosphate
<b>Synonyms:</b>	Blended Phosphate solution
<b>Manufacturer's Name:</b> Carus Phosphates, Inc.	<b>Information:</b> (815) 223-1500 (815) 224-6816 (FAX) www.caruschem.com (Web) salesmkt@caruschem.com (Email)
<b>Manufacturer's Address:</b> Carus Phosphates, Inc. 315 Fifth Street Peru, IL 61354, USA	<b>Emergency Telephone:</b> (800) 435-6856 (USA) (815) 223-1500 (Other countries) CHEMTREC <sup>®</sup> (800) 424-9300 (USA) (703) 527-3887 (Other countries)

## Section 2 Ingredients Information

Material	PEL	TLV	CAS.NO.	EC. NO.	%
Diphosphoric acid, disodium salt	No Data	No Data	7758-16-9	<u>231-835-0</u>	1-15
Other non-hazardous ingredients	No Data	No Data	N/A	N/A	50-99

This product contains no toxic chemicals subject to the reporting requirements of Section 313 – Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

All the components in this product are generally considered to be safe and none could be classified as hazardous according to the WHMIS system. None are listed on the Canadian Ingredient Disclosure List.

**Carcinogenicity:** Not listed by NTP

**Hazard Symbols:** None

**Risk Phrases:** 22 Harmful if swallowed. 38 Irritating to skin

**Safety Phrases:** 2 Keep out of reach of children 61 Avoid releases to the environment.

## Section 3 Hazards Identification

### Hazardous Materials Identification System (HMIS) Ratings:

Health: 1 - Slight

Flammability: 0 - None

Reactivity: 0 - None

Personnel Protective Equipment: goggles, face shield, apron, respirator and proper gloves.

### Inhalation:

May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

### Ingestion:

Phosphates are slowly and incompletely absorbed when ingested, and seldom result in systemic effects. Such effects, however, have occurred. Symptoms may include vomiting, lethargy, diarrhea, blood chemistry effects, heart disturbances and central nervous system effects. The toxicity of phosphates is due to their ability to sequester calcium.

### Skin Contact:

May cause irritation. May cause inflammation and pain on prolonged contact, especially with moist skin.

### Eye Contact:

May cause irritation, redness and pain.

### Chronic Exposure:

May sequester calcium and cause calcium phosphate deposits in the kidneys.

### Aggravation of Pre-existing Conditions:

No information found.





# AQUA MAG<sup>®</sup> BLENDED PHOSPHATE

EC- SAFETY DATA SHEET according to EC directive 2001/58/EC  
MATERIAL SAFETY DATA SHEET

Page 2 of 5

## Section 4 First Aid Measures

### Eyes:

Immediately flush eyes with large amounts of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface.

### Skin:

Immediately wash contaminated areas with water. Remove contaminated clothing and footwear. Wash clothing and decontaminate footwear before reuse.

### Inhalation:

Remove person from contaminated area to fresh air.

### Ingestion:

Never give anything by mouth to an unconscious or convulsing person. If person is conscious, give large quantities of water or milk. Seek medical attention immediately.

## Section 5 Fire Fighting Measures

### NFPA\* Hazard Ratings:

Health: 1 = Materials which under fire conditions would give off irritating combustion products (less than 1 hour exposure). Materials which on the skin could cause irritation.

Flammability: 0 = Materials that will not burn.

Reactivity: 0 = Materials which in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.

Special Hazard: None

\*National Fire Protection Association 704

### First Responders:

Wear protective gloves, boots, goggles, and respirator. In case of fire, wear positive pressure breathing apparatus. Approach incident with caution.

### Flash Point

None

### Flammable or Explosive Limits

Lower: Nonflammable Upper: Nonflammable

### Extinguishing Media

Use large quantities of water. Dike to contain.

## Section 6 Accidental Release Measures

### Steps To Be Taken If Material Is Released Or Spilled:

Contain spill by collecting the liquid in a pit or holding behind a dam (sand or soil). Absorb with inert media and dispose of properly. Disposal of all materials shall be in full and strict compliance with all federal, state, and local regulations pertaining to phosphates. Flush area with large amounts of water.

### Personnel Precautions:

Personnel should wear protective clothing suitable for the task.

## Section 7 Handling and Storage

### Work/Hygiene Practices:

Wash hands thoroughly with soap and water after handling phosphate solution, and before eating or smoking. Wear proper protective equipment. Remove clothing, if it becomes contaminated.

### Ventilation Requirements:

Provide sufficient mechanical and/or local exhaust.

### Conditions For Safe Storage:

Protect containers from physical damage. Store in a cool, dry area in closed containers.





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EC- SAFETY DATA SHEET according to EC directive 2001/58/EC  
MATERIAL SAFETY DATA SHEET

Page 3 of 5

## Section 8 Exposure Controls and Personal Protection

### Respiratory Protection:

In cases where overexposure to mist may occur, use an approved NIOSH-MSHA mist respirator (N-95 or better). Engineering or administrative controls should be implemented to control mist.

### Eye:

Face shield, goggles, or safety glasses with side shields should be worn. Provide eyewash in working area.

### Gloves:

Rubber or plastic gloves should be worn.

### Other Protective Equipment:

Normal work clothing covering arms and legs, and rubber, or plastic apron should be worn. Caution: If clothing becomes contaminated, wash off immediately.

## Section 9 Physical and Chemical Properties

<b>Appearance And Odor:</b>	Colorless solution, odorless
<b>Boiling Point, 760 mm Hg:</b>	>101 °C
<b>Freezing Point:</b>	< 0 °C
<b>Vapor Pressure (mm Hg):</b>	N/A
<b>Solubility In Water % By Solution:</b>	Miscible in all proportions
<b>Percentage Volatile By Volume:</b>	55% (as water)
<b>Evaporation Rate:</b>	Same as water
<b>Specific Gravity:</b>	1.37 ± 0.03
<b>pH:</b>	4.7 ± 0.5

## Section 10 Stability and Reactivity

<b>Stability:</b>	Under normal conditions, the material is stable.
<b>Conditions To Avoid:</b>	Do not expose to extreme temperatures.
<b>Incompatible Materials</b>	Soluble calcium salt solutions and hydrofluoric or hydrofluosilicic acid could cause precipitations.
<b>Hazardous Decomposition:</b>	When involved in a fire, the material may form toxic fumes of phosphorous oxides.
<b>Condition Contributing To Hazardous Polymerization:</b>	Material is not known to polymerize.

## Section 11 Toxicological Information

### Acute Overexposure:

Irritating to body tissue with which it comes into contact.

### Chronic Overexposure:

No known cases of chronic poisoning due to phosphate solutions have been reported. May sequester calcium and cause calcium phosphate deposits in the kidneys.

### Carcinogenicity:

None of the components have been classified as a carcinogen by OSHA, NTP, and IARC.

### Medical Conditions Generally Aggravated by Exposure:

Phosphate solution will cause further irritation of tissue, open wounds, burns or mucous membranes.





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EC- SAFETY DATA SHEET according to EC directive 2001/58/EC  
MATERIAL SAFETY DATA SHEET

Page 4 of 5

## Section 12 Ecological Information

None

## Section 13 Disposal Considerations

### Waste Disposal:

Disposal of all materials shall be in full and strict compliance with all federal, state, and local regulations pertaining to phosphates. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

## Section 14 Transport Information

Not regulated by US DOT, Canada TDG, UN, IMDG, IATA regulations

## Section 15 Regulatory Information

### US Federal Regulations

#### TSCA:

All components in this product are listed on the TSCA inventory.

#### Health & Safety Reporting List:

None of the chemicals in this product are on the Health & Safety Reporting List.

#### Chemical Test Rules:

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b:

None of the chemicals in this product are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule:

None of the chemicals in this product have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs:

None of the chemicals in this product have an RQ.

#### SARA Section 302 Extremely Hazardous Substances:

None of the chemicals in this product have a TPQ.

#### SARA Codes:

Acute

#### Section 313:

None of chemicals in this product are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 or Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### State:

None of the chemicals in this product are present on state lists from CA, PA, WI, MA, or NJ.

#### California Prop 65:

California No Significant Risk Level: None of the chemicals in this product are listed.





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EC- SAFETY DATA SHEET according to EC directive 2001/58/EC  
MATERIAL SAFETY DATA SHEET

Page 5 of 5

## European/International Regulations

### European Labeling in Accordance with EC Directives:

**Hazard Symbols:** None  
**Risk Phrases:** 22 Harmful if swallowed. 38 Irritating to skin  
**Safety Phrases:** 2 Keep out of reach of children 61 Avoid releases to the environment.  
**WGK (Water Danger/Protection):** None

### Canada - DSL/NDSL:

All components are listed on Canada's DSL List

### Canada - WHMIS:

None of the components in this product could be classified as hazardous in accordance with the hazard criteria of the Controlled Products Regulations.

### Canadian Ingredient Disclosure List:

None of the components in this product are listed on the Canadian Ingredient Disclosure List.

## Section 16 Other Information

NIOSH: National Institute for Occupational Safety and Health  
MSHA: Mine Safety and Health Administration  
OSHA: Occupational Safety and Health Administration  
NTP: National Toxicology Program  
IARC: International Agency for Research on Cancer  
PEL: Permissible Exposure Limit  
DSL/NDSL: The Domestic Substances and the Non-Domestic Substances List (Canada)  
TLV-TWA: Threshold Limit Value-Time Weighted Average  
CAS: Chemical Abstract Service  
EINECS: Inventory of Existing Chemical Substances (European) (EC. No.)


The information contained herein is accurate to the best of our knowledge. However, data, safety standards and government regulations are subject to change and, therefore, holders and users should satisfy themselves that they are aware of all current data and regulations relevant to their particular use of product. CARUS PHOSPHATES, INC. DISCLAIMS ALL LIABILITY FOR RELIANCE ON THE COMPLETENESS OR ACCURACY OR THE INFORMATION INCLUDED HEREIN. CARUS PHOSPHATES, INC. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR USE OR PURPOSE OF THE PRODUCT DESCRIBED HEREIN. All conditions relating to storage, handling, and use of the product are beyond the control of Carus Phosphates, Inc., and shall be the sole responsibility of the holder or user of the product.

CARUS PHOSPHATES, INC. IS A SUBSIDIARY OF CARUS CORPORATION, 315 FIFTH STREET, PERU, IL



Chithambarathanu Pillai

January 2009

 is a registered service mark of Carus Corporation. AQUA MAG<sup>®</sup> is a registered trademark of Carus Corporation. Responsible Care<sup>®</sup> is a registered service mark of the American Chemistry Council.





CARUS

# AQUA MAG<sup>®</sup>

Carus Chemical Company  
Municipal Division  
315 Fifth Street  
P.O. Box 599  
Peru, IL 61354-0599  
Tel (815) 223 1500  
Fax (815) 224 6697

## SEQUESTERANT, SCALE, CORROSION INHIBITOR

AQUA MAG is a water treatment additive for potable and industrial water treatment. It is produced by thermal reaction of food-grade phosphates into a liquid concentrate of exceptional purity, clarity and stability. AQUA MAG contains all available species of phosphate compounds for better sequestration and corrosion control.

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### SEQUESTRATION

#### Reduction of:

- \*Iron and Manganese Stains
- \*Calcium deposits
- \*Chlorine demand

---

### CORROSION CONTROL

#### Reduction of:

- \*Lead and Copper leaching
- \*Iron tuberculation in distribution pipes
- \*Microbial Influenced Corrosion (MIC)

---

### CERTIFICATIONS

USEPA, USDA, NSF International, UL,  
ANSI/NSF Std. 60 and Kosher approved

---

### PROPERTIES

- \*Clear homogeneous liquid
- \*Viscosity 1.008 cps at 70° F
- \*Ratio ortho/complex polyphosphate 30/70
- \*No heavy metals available
- \*Freezing point <38° F
- \*Shelf life (neat) >2 years
- \*Spec. Gravity 1.367 +/- 0.01
- \*% Total Phosphate 34.5 +/- 1.0
- \*pH neat 5.2 +/- 0.5
- \*Totally soluble and freeze/thaw stable
- \*11.4 lbs. Per gallon

---

### SHIPPING & HANDLING

AQUA MAG is packaged in 1, 5, 15, 30 & 55 gallon containers and bulk quantities from the manufacturing facility, local warehouses and bulk terminals. The product is shipped in safety-sealed, food-grade labeled containers or food-grade certified tankers. Each container is identified by lot number.

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### APPLICATION RATE

AQUA MAG is applied using a chemical metering pump. In most applications, AQUA MAG is fed as a concentrate without the necessity of dilution. For AQUA MAG dosage rates or answers to technical questions, contact Dave Symonds & Associates, Inc., or any local dealer.

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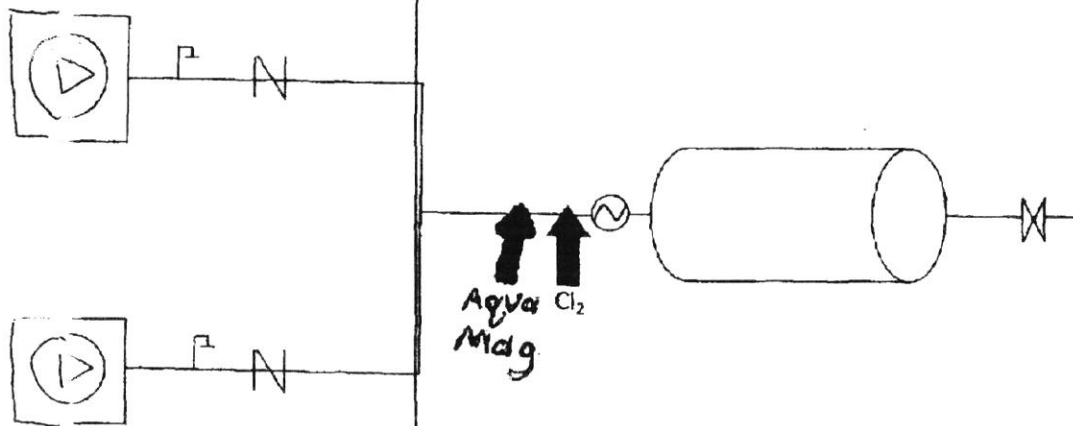
**DAVE SYMONDS & ASSOCIATES, INC.**  
DISTRIBUTORS FOR FLORIDA & ALABAMA SINCE 1974  
LEESBURG, FLORIDA  
Toll Free: 1-800-226-0340  
PH: 352-787-0340  
Fax: 352-787-0823

Local Dealer:



Attn: Arturo Aranda

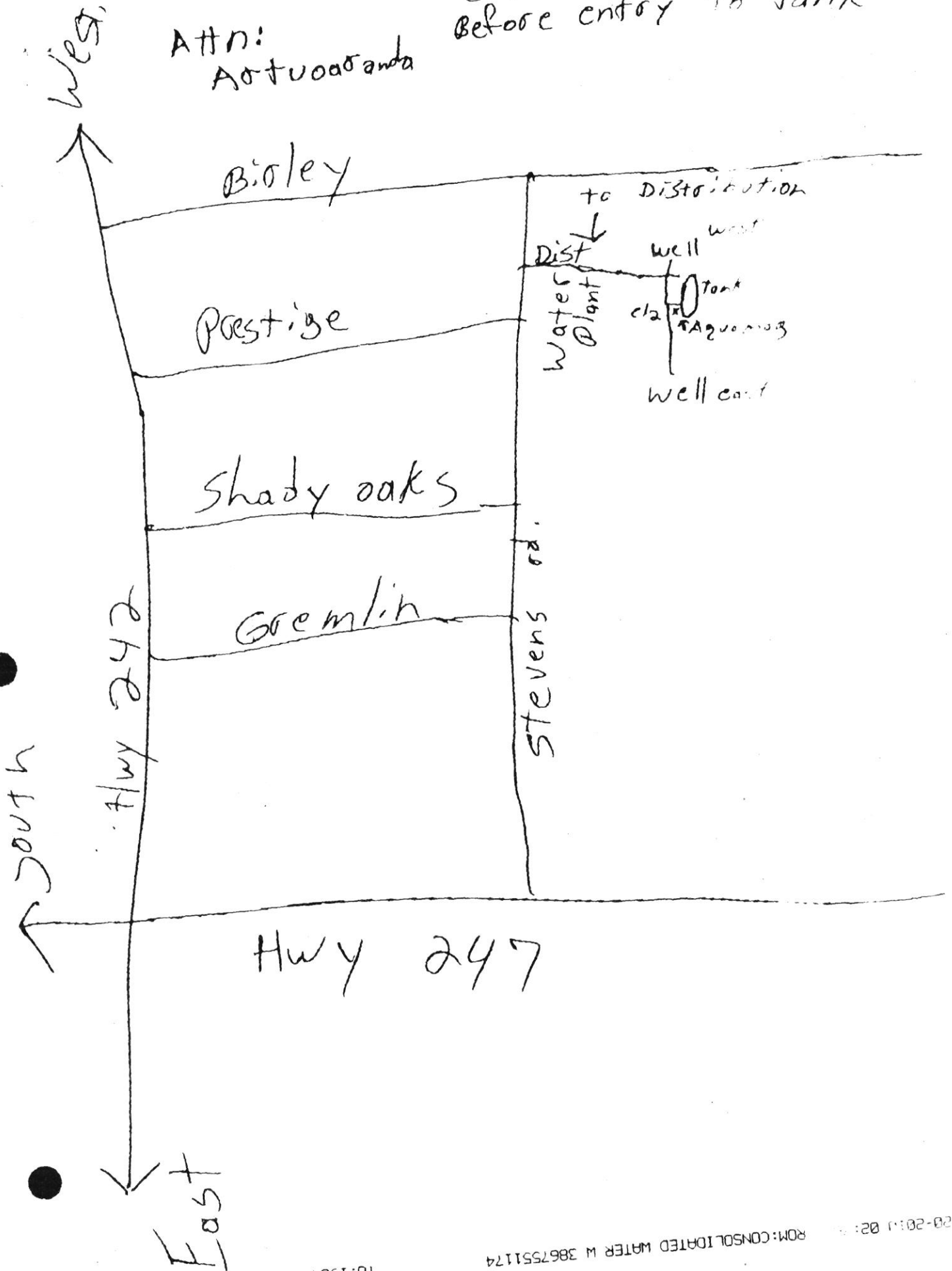
Shady Oaks pws: 2121023





cla and aquanog INSECT  
Before entry to Tank

Attn:  
Aotuoaranda



TO: 190444484366

PR-20-2011 02: 5  
ROM: CONSOLIDATED WATER W 3867551174



Permitting Application - Permit Detail and Log Permit

**SITE Permit**

Site Name: SHADY OAKS SUBDIVISION / PWS#2121023 Site #: 0299973

County: COLUMBIA Comments: ☒ RPAs: ☒ # Cases: 0

**Project**

Permit #: [ ] [ ] [ ] Project #: 001 Received: 04/07/2010 CRA #: [ ]

Permit Office: MED (DISTRICT) Agency Action: Pending

Project Name: AQUA MAG ADDITION Desc: [ ]

Type/Sub/Des: WCGP / 02 COR CONTROL NOH - PE WACS/ME ID: [ ] OGC: ☐

Logged: 04/08/2010 Issued: [ ] Expires: [ ] Application Action: NEW

Fee: 500.00 Fee Recd: [ ] Date: [ ] COE #: [ ] Override: NONE

**Related Party**

Role: APPLICANT Begin: 04/08/2010 End: [ ]

Name: ESPENSHIP, JACK Company: SHADY OAKS SUBDIVISION

Address: P O BOX 3695

City: LAKE CITY State: FL Zip: 32056 Country: U.S.A.

Phone: 386-752-6729 Fax: [ ] Email: [ ]

**Processors**

Processor: WALLER, B ☒ Active: 04/08/2010 Inactive: [ ] Events: [ ]

Arturo

05/07/10



Comments

Comments Site # 0299973 Project # 001

04/07/10 - RECEIPT # 700465, CHECK # 4080 - \$500.00



Cash Receiving Application - Collection Point Log Remittance

CL AREA **NED**

CRF006A

Logged Total \$40,891.56

Collection Point Log Remittance

Remittance ID **874103** Type **CP** Received Date **04/07/2010** Status **RECEIVED**

System Receipt **700465** PNR  Check # **4080** Amount **500.00**

SSN/FEID  Name **CONSOLIDATED WATER WORKS INC**

First  Middle  Title  Suffix

Address1 **PO BOX 191**

Address2

City **LAKE CITY** ST **FL** Zip **32056**

County  Short Comments **MR/OHAWCGP0299973-001**

Distribution Object

PAYMENT(S)

Payment ID	CL Area	Code/Description	Payment Amount	Reference#	Appl	Fund*	Grant*	Status
1003272	NED	002230 DRINK WATER-CON	\$500.00	WCGP02993	PA	PETF		COMPLETE ▲

COMMIT FREQUENTLY

\$500.00 Payment Total





# CERTIFICATION OF CONSTRUCTION COMPLETION AND REQUEST FOR CLEARANCE TO PLACE PERMITTED PWS COMPONENTS INTO OPERATION

See page 5 for instructions.

## I. General Project Information

A. Name of Project: Shady Oaks

B. Department of Environmental Protection (DEP) Construction Permit

Permit Number:

Date Permit Was Issued: 4-23, 2010

C. Portion of Project for Which Construction Is Substantially Complete and for Which Clearance Is Requested

☒ Entire Project

☐ Following Portion of Project: P0299973-001 WCGP

D. Permittee

PWS/Company Name: Jack Espenship PWS Identification Number: 2121023

PWS Type: ☒ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive

Contact Person: Daniel Houston

Contact Person's Title: operator

Contact Person's Mailing Address: P.O. Box 3695

City: Lake City

State: FL

Zip Code: 32056

Contact Person's Telephone Number: (386) 984-0752

Contact Person's Fax Number:

Contact Person's E-Mail Address: hughstowne @ msn . com

\* This information is required only if the permittee is a public water system (PWS).

E. Public Water System (PWS) Supplying Water to Project

PWS Name: Consolidated Water PWS Identification Number: 2121023

PWS Type: ☒ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive

PWS Owner: Jack Espenship

Contact Person: Daniel Houston

Contact Person's Title: operator

Contact Person's Mailing Address: P.O. Box 3695

City: Lake City

State: FL

Zip Code: 32056

Contact Person's Telephone Number: (386) 984-0752

Contact Person's Fax Number:

Contact Person's E-Mail Address:

F. Public Water System (PWS) that Will Own Project After It Is Placed into Permanent Operation

PWS Name: Consolidated Water PWS Identification Number: 2121023

PWS Type: ☒ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive

PWS Owner: Jack Espenship

Contact Person: Daniel Houston

Contact Person's Title: operator

Contact Person's Mailing Address: P.O. Box 3695

City: Lake City

State: FL

Zip Code: 32056

Contact Person's Telephone Number:

Contact Person's Fax Number:

Contact Person's E-Mail Address:

\* This information is required only if the owner/operator is an existing PWS.

G. Professional Engineer in Responsible Charge of Inspecting Construction of Project\*

Company Name:

Engineer:

Engineer's Florida License Number:

Engineer's Title:

Engineer's Mailing Address:

City:

State:

Zip Code:

Engineer's Telephone Number:

Engineer's Fax Number:

Engineer's E-Mail Address:

\* This information is required if construction of this project is inspected under the responsible charge of a professional engineer licensed in Florida. Whenever a project is designed under the responsible charge of a professional engineer licensed in Florida and is permitted by the Department, construction of the project shall be inspected under the responsible charge of a professional engineer licensed in Florida.



# CERTIFICATION OF CONSTRUCTION COMPLETION AND REQUEST FOR CLEARANCE TO PLACE PERMITTED PWS COMPONENTS INTO OPERATION

DEP Construction Permit Number: 0029973-001 WCCP  
Substantially Complete Portion of Project if Other than Entire Project:

- to the best of my knowledge and belief, all new or altered public water system components that are included in the substantially complete portion of this project and that must be disinfected and bacteriologically surveyed or evaluated per subsection 62-555.315(6), F.A.C., or Rule 62-555.340, F.A.C., have been disinfected and bacteriologically surveyed or evaluated in accordance with said subsection or said rule;
- the permittee has had complete record drawings produced for the substantially complete portion of this project; to the best of my knowledge and belief, said record drawings adequately depict the substantially complete portion of this project as constructed and identify the deviations described and explained in Part II of this form; and said record drawings are available for review at the following location: Consolidated water 1188 SW Main Blvd. Lake City FL 32025
- if the substantially complete portion of this project includes any new or altered drinking water treatment facilities, an operation and maintenance manual for said treatment facilities is available for reference at the site of said treatment facilities or at a convenient location near the site of said treatment facilities.

I also certify that, if the permittee will not own this project after it is placed into permanent operation, the permittee has provided a copy of the above mentioned record drawings and a copy of the above mentioned operation and maintenance manual, if applicable, to the PWS that will own this project after it is placed into permanent operation.

Jack Espensh 6-16-2010 Jack Espensh owner  
Signature and Date Printed or Typed Name Title

## B. Certification by PWS Supplying Water to Project

I am duly authorized to sign this form on behalf of the PWS identified in Part I.E of this form. I certify that said PWS will supply the water necessary to meet the water demands for the substantially complete portion of this project, and I certify the following:

- to the best of my knowledge and belief, said PWS's connection to the substantially complete portion of this project will not cause said PWS to be, or contribute to said PWS being, in noncompliance with Chapter 62-550 or 62-555, F.A.C.;
- said PWS considers the connection(s) between the substantially complete portion of this project and said PWS acceptable as constructed.

Jack Espensh 6-16-2010 Jack Espensh owner  
Signature and Date Printed or Typed Name Title

## C. Certification by PWS that Will Own Project After It Is Placed into Permanent Operation

I am duly authorized to sign this form on behalf of the PWS identified in Part I.F of this form. I certify that said PWS will own the substantially complete portion of this project after it is placed into permanent operation, and I certify the following:

- said PWS considers the substantially complete portion of this project acceptable as constructed;
- said PWS has received complete record drawings for the substantially complete portion of this project and the record drawings are available for review at the following location: Consolidated water works 1188 SW Main Blvd. Lake City, FL 32025
- if the substantially complete portion of this project includes any new or altered drinking water treatment facilities, said PWS has received an operation and maintenance manual for the new or altered treatment facilities, and the operation and maintenance manual is available for reference at the site of the new or altered treatment facilities or at a convenient location near the site of the new or altered treatment facilities.

I understand that said PWS must operate and maintain this project in a such a manner as to comply with Chapters 62-550, 62-555, 62-560, and 62-699, F.A.C.


Jack Espensh 6-16-2010 Jack Espensh owner  
Signature and Date Printed or Typed Name Title

DEP  
NORTHEAST DISTRICT  
RECEIVED  
2010 JUN 18 PM 1:55



DEP Construction Permit Number: P0299973-601 WEGP  
Substantially Complete Portion of Project if Other than Entire Project:

Description and explanation of all deviations from the DEP construction permit, including the approved preliminary design report or drawings and specifications, for the substantially complete portion of this project: None

 Signature, Seal, and Date of Professional Engineer or Signature and Date of Authorized Representative of Permittee*	Daniel Houston Printed or Typed Name	operator License Number of Professional Engineer or Title of Authorized Representative of Permittee*
--	---	---

- to the best of my knowledge and belief, the substantially complete portion of this project is sufficiently complete to be utilized for the purposes for which it is intended;
- to the best of my knowledge and belief, the substantially complete portion of this project has been completed in accordance with the Department of Environmental Protection construction permit, including the approved preliminary design report or drawings and specifications, for this project; or to the best of my knowledge and belief, the deviations described and explained in Part II of this form will not prevent the substantially complete portion of this project from functioning in compliance with Chapters 62-550 and 62-555, F.A.C.;



**CERTIFICATION OF CONSTRUCTION COMPLETION AND REQUEST FOR CLEARANCE TO  
PLACE PERMITTED PWS COMPONENTS INTO OPERATION**

DEP Construction Permit Number:

Substantially Complete Portion of Project if Other than Entire Project:

- to the best of my knowledge and belief, all new or altered public water system components that are included in the substantially complete portion of this project and that must be disinfected and bacteriologically surveyed or evaluated per subsection 62-555.315(6), F.A.C., or Rule 62-555.340, F.A.C., have been disinfected and bacteriologically surveyed or evaluated in accordance with said subsection or said rule;
- the permittee has had complete record drawings produced for the substantially complete portion of this project; to the best of my knowledge and belief, said record drawings adequately depict the substantially complete portion of this project as constructed and identify the deviations described and explained in Part II of this form; and said record drawings are available for review at the following location: Shady Oaks PWS # 2121023

- if the substantially complete portion of this project includes any new or altered drinking water treatment facilities, an operation and maintenance manual for said treatment facilities is available for reference at the site of said treatment facilities or at a convenient location near the site of said treatment facilities.

I also certify that, if the permittee will not own this project after it is placed into permanent operation, the permittee has provided a copy of the above mentioned record drawings and a copy of the above mentioned operation and maintenance manual, if applicable, to the PWS that will own this project after it is placed into permanent operation.

Jack Espenship 6-4-2010 Jack Espenship Owner  
Signature and Date Printed or Typed Name Title

**B. Certification by PWS Supplying Water to Project**

I am duly authorized to sign this form on behalf of the PWS identified in Part I.E of this form. I certify that said PWS will supply the water necessary to meet the water demands for the substantially complete portion of this project, and I certify the following:

- to the best of my knowledge and belief, said PWS's connection to the substantially complete portion of this project will not cause said PWS to be, or contribute to said PWS being, in noncompliance with Chapter 62-550 or 62-555, F.A.C.;
- said PWS considers the connection(s) between the substantially complete portion of this project and said PWS acceptable as constructed.

Daniel Houston 6-4-10 Daniel Houston operator  
Signature and Date Printed or Typed Name Title

**C. Certification by PWS that Will Own Project After It Is Placed into Permanent Operation**

I am duly authorized to sign this form on behalf of the PWS identified in Part I.F of this form. I certify that said PWS will own the substantially complete portion of this project after it is placed into permanent operation, and I certify the following:

- said PWS considers the substantially complete portion of this project acceptable as constructed;
- said PWS has received complete record drawings for the substantially complete portion of this project and the record drawings are available for review at the following location: Gator Utilities

- if the substantially complete portion of this project includes any new or altered drinking water treatment facilities, said PWS has received an operation and maintenance manual for the new or altered treatment facilities, and the operation and maintenance manual is available for reference at the site of the new or altered treatment facilities or at a convenient location near the site of the new or altered treatment facilities.

I understand that said PWS must operate and maintain this project in a such a manner as to comply with Chapters 62-550, 62-555, 62-560, and 62-699, F.A.C.

Daniel Houston 6-4-10 Daniel Houston operator  
Signature and Date Printed or Typed Name Title



# DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND LABORATORY REPORTING FORMAT

62-550.730 Reporting Format - Effective 01/95, Revised 02/2010



Columbia County Health Department  
217 NE Franklin Street  
Lake City, Florida 32055  
386-758-1058

Lab ID #22787

Report Number: \_\_\_\_\_ Sub-Contract Lab ID: \_\_\_\_\_

**Analysis Requested:** (please check all that apply)

- ☒ Total Coliform/E. coli  
☐ Other: \_\_\_\_\_

Lab Receipt Date & Time: 5/17/10 1:00  
Analysis Date & Time: 5/17/10 2:30

**Sample Acceptance Criteria:**

Sample Preservation ☐ On Ice ☒ Not On Ice 17.4 °C  
Disinfectant Check ☒ Not Detected ☐ \_\_\_\_\_ mg/L  
This sample does not meet the following NELAC requirements:

**System Name:** Slady Oaks

**PWS I.D.** 2121023

**System Address:** P.O. Box 3695

**City:** Lake City 32056

**System or Owner's Phone #:** \_\_\_\_\_

**Fax #:** \_\_\_\_\_

**Collector:** D. Houston

**Collector's Phone #:** (386) 984-0752

**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:** 5-16-2010

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type	Disinfect Res'd (mg/L)	pH
8	Entry to Dist.	6:30 pm	D	0.6	

Total Coliform / E. coli Analysis Method: Colilert, SM9223B				
Incubator # <u>3</u>				
Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier <sup>2</sup>	Lab Sample Number
	A	A		102186

**Average of disinfectant residuals for routine and repeat samples:**

- ☒ Free Chlorine ☐ Total Chlorine

**Disinfectant Residual Analysis Method:**

- ☒ DPD Colorimetric ☐ Other: \_\_\_\_\_

**Person performing analysis is (Please see instructions on reverse):**

- ☒ A certified operator (# C-0006223)  
☐ Supervised by a cert operator (# \_\_\_\_\_)  
☐ Employed by a certified lab  
☐ Authorized representative of supplier of water  
☐ Employed by DEP/DOH

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

**Results:** A = coliforms are absent  
P = coliforms are present

Date/time PWS notified by lab of positive results: \_\_\_\_\_

Date/time State notified by lab of positive results: \_\_\_\_\_

**Lab Signature:** [Signature]

**Title:** URS MGR

**Date report issued:** 5/18/10

**Name and Mailing Address of Person to Receive Report**

- ☐ Mail to above address ☐ Fax ☐ Customer Pickup

DEP/DOH USE ONLY

- ☒ Satisfactory  
☐ Incomplete Collection Information  
☐ Repeat Samples Required  
☐ Replacement Samples Required

Date Reviewed by DEP/DOH: 5/18/10

DEP/DOH Reviewing Official: [Signature]

1. D = Distribution (routine compliance), C = Repeat/Check, R = Raw, N = Entry Point to Distribution, P = Plant Tap, S = Special (clearance, etc.).  
2. Defined in Florida Administrative Code Rule 62-160, Table 1.  
3. 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.

See back for instructions



# DRINKING WATER BACTERIOLOGICAL SAMPLE COLLECTION AND LABORATORY REPORTING FORMAT

62-550.730 Reporting Format - Effective 01/95, Revised 02/2010



Columbia County Health Department  
217 NE Franklin Street  
Lake City, Florida 32055  
386-758-1058

Lab ID #22787

Report Number: \_\_\_\_\_

Analysis Requested: (please check all that apply)

- ☒ Total Coliform/E. coli  
☐ Other: \_\_\_\_\_

Lab Receipt Date & Time: 5/17/10 1:00

Analysis Date & Time: 5/17/10 3:00p AK

## Sample Acceptance Criteria:

- Sample Preservation ☒ On Ice ☐ Not On Ice ☐ 17.4 °C  
Disinfectant Check ☒ Not Detected ☐ \_\_\_\_\_ mg/L  
This sample does not meet the following NELAC requirements: \_\_\_\_\_

System Name: \*Shady Oaks

PWS I.D. 2121023

System Address: P.O. Box 369573 - 001 WECP

System or Owner's Phone #: \_\_\_\_\_

Fax #: \_\_\_\_\_

Collector: D. Houston

Collector's Phone #: (386) 981-1075

## 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: 5-17-2010

Sample Number	Sample Point (Location or Specific Address)	Collection Time	Sample Type <sup>1</sup>	Disinfect Res'd (mg/L)	pH
7	Entry to Dist	11:30a	D	0.6	

Total Coliform / E. coli Analysis Method: Colilert, SM9223B				
Incubator # <u>3</u>				
Non Coliform	Total Coliform	Fecal or E. coli	Data Qualifier <sup>2</sup>	Lab Sample Number
	A	A		102185

## Average of disinfectant residuals for routine and repeat samples:

- ☒ Free Chlorine ☐ Total Chlorine  
Disinfectant Residual Analysis Method:  
☒ DPD Colorimetric ☐ Other: \_\_\_\_\_

## Person performing analysis is (Please see instructions on reverse):

- ☒ A certified operator (# C-0006223)  
☐ Supervised by a cert operator (# \_\_\_\_\_)  
☐ Employed by a certified lab  
☐ Authorized representative of supplier of water  
☐ Employed by DEP/DOH

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

Results: A = coliforms are absent  
P = coliforms are present

Date/time PWS notified by lab of positive results: \_\_\_\_\_

Date/time State notified by lab of positive results: \_\_\_\_\_

Lab Signature: [Signature]

Title: Donna [Signature]

Date report issued: 5/18/10

Name and Mailing Address of Person to Receive Report

- ☐ Mail to above address ☐ Fax ☐ Customer Pickup

DEP/DOH USE ONLY

- ☒ Satisfactory  
☐ Incomplete Collection Information  
☐ Repeat Samples Required  
☐ Replacement Samples Required

Date Reviewed by DEP/DOH: 5/18/10

DEP/DOH Reviewing Official: [Signature]

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