2008

Franklin County Water Utility Report

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Foreword

Meridian Planning, Inc. has developed this document to assist Franklin County, Florida in identifying water and wastewater utility needs, now and in the future. Meridian Planning has conducted a comprehensive utility survey and has identified various utility needs. We have laid out several strategies and recommendations with an estimated cost to implement each recommendation. Also included is a time line of specific major tasks necessary to implement the recommendations presented.

This utility report looks at the grand scale, "the big picture" as well as the "long range plan," and evaluates current activities and programs of the County and the various purveyors within the County, and then proposes future actions that will *best benefit the community as a whole*. Franklin County can influence the quality of life of its citizens by adopting sound utility planning for a positive future outcome. This strategies for sound future growth of utility infrastructure within the unincorporated areas of the County fall into the flowing categories:

- Financial strategies
- Governance options
- Proposed infrastructure improvements

It is the responsibility of the state and county leadership to make decisions now that will have lasting positive effect. Fortunately, Franklin County receives strong support from its State legislative delegation. Also, Franklin County is ably led by a Commission and Staff dedicated to the needs of their community now and in the future.

Thomas A. Bryant

Acknowledgements

Thanks to all Commissioners for having the vision to ensure that citizens have water and wastewater service upon request, at a fair price, and that growth needs are reasonably met while protecting the environment.

Thanks to Mr. Alan Pierce, County Administrator, who understands the need to manage growth and plan for it. Mr. Pierce is an excellent facilitator and has a good understanding of the Community's needs. Mr. Pierce was instrumental in the development of this Utility Report.

The Franklin County Staff has demonstrated an ongoing proactive effort to provide water and wastewater service to meet ongoing needs within reason, in an effort to protect the environment, and to meet the demands of future growth within the community. Thanks to the governing boards, management, and staff of the Cities of Franklin County who assisted in making this report a comprehensive analysis of the County's infrastructure needs.

Thanks to the Florida Rural Water Association for their technical support on this report. Special Thanks to Mr. Gary Williams and Mr. Sterling Carroll for their ongoing efforts to support Franklin County and the utility purveyors within the County as they work together to develop a utility plan that will benefit all.

Thanks to Mr. Cliff McKeown with the Florida Department of Environmental Protection, for his support of Franklin County and this Report. Thanks also to Angela Chelette at the Northwest Florida Water Management District (NWFWMD) who provided valuable data and insight regarding the water quality and water quantity within the County. Ms. Chelette afforded her time to explain the programs in place by the NWFWMD to evaluate various water production options explored by the District.

Thomas A. Bryant

1.0 Executive Summary and Recommendations

Franklin County Water/Wastewater Report

The Franklin County Board of County Commission is charged with the responsibility to ensure the public interest and welfare is met with regard to:

(1) the impact of growth in Franklin County;
(2) the need to provide and plan for water, wastewater, and reuse utility service as necessary to accommodate existing development and anticipated future growth in a responsible manner;
(3) the requirements of state and federal mandates for water quality; and
(4) the demands of new development and each local government's statutory responsibility to implement financially feasible comprehensive plans.

Centralizing a currently unwieldy and inefficient system of discreet utilities would provide a more responsive water and wastewater system that would better serve the public and the environment. The County may choose to pursue grant and low-interest funding for these goals to design and construct this improved infrastructure for all of Franklin County.

A coordinated, well-planned approach to the delivery of potable water and collection of wastewater services and facilities within Franklin County will provide the opportunity for the County, Cities and Purveyors to:

(1) Develop an efficient and environmentally responsible approach to the comprehensive production, treatment, and distribution of water and the collection, treatment, and disposal of wastewater;
(2) Seek economies of scale resulting from the unified and coordinated provision of regional utility services through either wholesale service arrangements or jointly owned facilities;

(3) Ensure that current and future users of water and wastewater facilities and services within Franklin County are provided with cost efficient services at reasonable rates;

(4) Ensure that the operation and maintenance of potable water and wastewater facilities is conducted in a pro-active, accountable, and environmentally responsible manner;

(5) Stabilize potable water and wastewater utility rates over the long term;

(6) Assure the appropriate expansion and interconnection of existing facilities and the construction of future facilities in a coordinated, uniform, and non-discriminatory manner which avoids special or disproportionate benefit to individual utility operations or special interests at the expense of either current or future users;

(7) Promote the identification and development of additional water resources inland while protecting the environment (surface water and ground water resources in Franklin County);

(8) Foster a greater public use and increase public benefit from the ownership, operation, and control of central water and wastewater systems and facilities by local governments;

(9) Establish a stormwater utility to help mitigate the pollutants that enter Apalachicola Bay and threaten the environment, public health, economic development, and to fund necessary capital improvements to manage stormwater.

(10) Actively pursue grant and low interest loan funding to facilitate stormwater improvements including:

(11) County to establish an advisory committee, responsible to the Board of County Commissioners, to create an educational campaign to reduce individual input of water contaminants

(12) Pursue grant funding for additional EPA-approved and funded baffle boxes to filter nitrogen loads from stormwater runoff

(13) Implement Local Mitigation strategies to access federal disaster funds for stormwater management

(14) Implement an improved wastewater management policy on St. George Island with the goal of meeting national standards for septic effluent

(15) County shall secure a three year contract with a testing facility to assure septic systems are meeting these national standards; annual fees shall be collected to cover the cost of these tests

(16) Empower the County Health Department to assess the appropriateness of the size of septic system based on the system's actual use

(17) Introduce a program of stake-holder driven education for the benefits of improved septic management practices on St. George Island

(18) Enact an ordinance outlining the County's goals for better effluent management practices on St. George Island

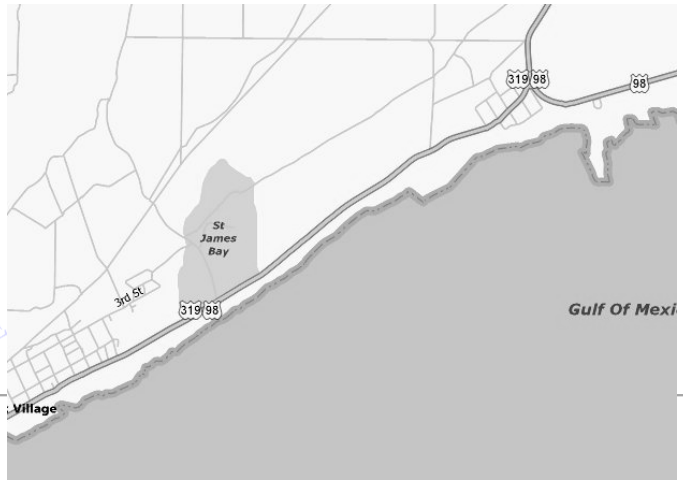
Meridian Planning, Inc. conducted interviews with representatives of the County, Cities, and purveyors to discuss the existing status of their respective centralized, public-owned water and wastewater services and facilities on several occasions. The Evaluation Team has obtained and reviewed substantial data and discussed the status of services countywide with state regulators, including the Department of Environmental Protection and the Northwest Florida Water Management District. The following is a recommended plan of action for meeting the County's goals of developing a comprehensive, coordinated, and cooperative approach to providing cost effective water and wastewater service to existing and future County residents and businesses.

<u>Recommendation 1</u>:

Establish a regional water main extension program to be phased over the next 20 years along the following route:

Extend Water Pipe From	*To*	*Phase*	**Year to Begin**
St. James Bay	St. Joe Property	I	2010
Lanark Village	Carrabelle	II	2011
Hwy 98/319 int.	FSU Marine Lab	III	2014
FSU Marine Lab	Alligator Point	IV	2017
Carrabelle	Inland Resources	V	2025 – 2029

For the period 2008-2010, Phase I, construct an adequate water main to connect the St. James Bay water main to the St. Joe Property (estimated 1.3 miles of needed water main). Concurrent with this project, the City of Carrabelle should ensure the Lanark Village water system and the St. James Bay water systems have the provisions for 20 year growth, and install the equipment necessary to join the three systems (Lanark Village, St. James Bay, and St. Joe) at a sufficient hydraulic grade. A 10" to 12" water main will be required to serve the expected 10 year growth.



(a) File a 2009 Community Budget Issue Request for water distribution improvements as noted above.

(b) Begin discussion with the Northwest Florida Water Management District to lay out a plan of action to serve the existing customer base and new development along the Franklin County coast. Make a request of the NWFWMD for funding assistance to implement the agreed upon plan of action.

(c) Execute an interlocal agreement for water supply between the City of Carrabelle and the Alligator Point water utility. Facilitate a public-private partnership agreement between St. Joe Company and the City of Carrabelle which outlines one or all of the following actions:

- Carrabelle to accept wastewater septage from the two existing lift stations within St. Joe property (Summer Camp).
- Carrabelle to begin operations and maintenance of the infrastructure and customer base within St. Joe property (Summer Camp).
- St. Joe Company to transfer water and wastewater utility assets from the Summer Camp development to the City of Carrabelle for ownership and maintenance, including all necessary easements and rights of way. It is desirable to transfer full ownership and operations of these facilities to the City of Carrabelle once the system has ample connections to fund the total cost of operations and maintenance associated with these facilities.

(d) The City of Carrabelle to immediately execute a request for funds from an existing grant with the Florida Department of Environmental Protection (FDEP) State Revolving Fund (SRF) to implement wastewater improvements at Lanark Village. Previously identified improvements include a master lift station within Lanark Village that would pump all wastewater into an existing 14" force main, back to the regional WWTP, located in Carrabelle.

Recommendation 2:

Facilitate the entry of emergency interconnect agreements to achieve redundancy and back-up water supplies between East Point and St. George Island Utility. Agreement should spell out responsibilities and payment of cost incurred by each purveyor.

Recommendation 3:

(a) Facilitate the entry of a Joint Service Area Agreement between the County, Cities and Special Districts.

(b) Identification of Exclusive Service Areas by map and legal descriptions. Maps of existing water distribution and service lines as well as wastewater collection lines should be prepared by each Purveyor and submitted to the County Planning Department.

(c) Coordination of central service expansions and the use of mandatory connections to central service.

(d) Foster interconnections and wholesale service relationships.

Recommendation 4:

(a) Solicit interest in consolidation of water and wastewater facilities for the purpose of providing regional wastewater treatment and disposal service.

Expected participating purveyors would be The City of Carrabelle and St. Joe Company. St. Joe and the City of Carrabelle have discussed the possibility of the City of Carrabelle owning and operating St. Joe's facilities.

(b) City of Carrabelle to file Request for Inclusion (RFI) for consideration by DEP to fund needed improvement for interconnect.

(c) Assist the City of Carrabelle in securing funds (legislative appropriation, CDBG, FDEP SRF, RD, etc.) for distribution and collection system improvements/replacements within the unincorporated areas of the County.

Recommendation 5:

(a) County acknowledges that purveyors within the County should contact the Florida Rural Water Association to perform rate and connection fee review.

(b) County acknowledges that rates and charges must reflect the cost of service, the value of precious water supplies, and a policy that growth shall pay for itself.

(c) County acknowledges that Cities and Special Districts should communicate with customers regarding the need for water conservation and implementation of appropriate rates and rate structure to encourage conservation.

(d) County acknowledges that wholesale service agreements between and among Cities and Member Utilities in part through coordination of wholesale rate-setting methodology is desirable. It is expected this will apply to the City of Carrabelle and the Alligator Point utility.

(e) County acknowledges that acceptance of changes to rates and fees by encouraging phasing-in of such changes is desirable to the end customer.

(f) County acknowledges that utility providers should implement annual rate indexing to adjust rates upward to collect inflationary impact, i.e., associate charges with the consumer price index (cpi).

Recommendation 6:

(a) County to obtain support from Cities and Special Districts for the concept of identifying additional sources of long-term water supplies by the formation of a committee / task force that will identify resources and make recommendations. This Franklin County Water Resources Committee should be composed of members from the special districts.

(b) County, Cities and Special Districts to engage the Northwest Florida Water Management District (NWFWMD) in a regional evaluation of water resources throughout the County with the associated distribution piping network that is feasible to implement in the short term (10 years) with 20 year phasing in addressed. Emphasis should be placed on water resources and the distribution infrastructure necessary to deliver the raw product to the purveyor.

Recommendation 7:

County to participate in the funding effort of each project that supports regional utility service throughout the County.

Recommendation 8:

The County, Cities, and Special Districts should initiate discussions concerning the long term economic and environmental benefits that would result if a common policy in favor of constructing water and wastewater infrastructure for new developments is adopted county-wide. Manage growth within Franklin County via utility infrastructure expansion policy.

Recommendation 9:

Establish a stormwater utility to help mitigate the pollutants that enter Apalachicola Bay and threaten the environment, public health, economic development, and fund necessary capital improvements to manage stormwater.

Recommendation 10:

Actively pursue grant and low interest loan funding to facilitate stormwater improvements. Federal and state funds have been awarded to local governments seeking to create a comprehensive stormwater mitigation program. Programs which contemplate community involvement and education are especially attractive candidates for grant monies.

Recommendation 11:

County to establish an advisory committee, responsible to the Board of County Commissioners, to create an educational campaign to reduce individual input of water contaminants. The most effective clean water programs actively solicit community participation to design and implement various components of a comprehensive stormwater pollution mitigation program.

Recommendation 12:

Pursue grant funding for additional EPA-approved and funded baffle boxes to filter nitrogen loads from stormwater runoff. The County has baffle boxes currently in place and additional systems are an inexpensive and effective means of cleaning stormwater runoff before contaminants enter the County's water bodies.

Recommendation 13:

Implement Local Mitigation Strategies (LMS) to access federal disaster funds for stormwater management. Local Mitigation Strategies help local communities access funding from the Federal Emergency Management Agency. FEMA funds can be targeted to water management issues in a county that has indicated that flooding and drainage challenges are priorities in their county's LMS.

Recommendation 14:

Implement an improved wastewater management policy on St. George Island with the goal of meeting national standards for septic effluent. Total Nitrogen input to the Gulf and Bay from septic systems on St. George Island can be drastically reduced by applying a uniform national standard to all units on the island; many of the systems on St. George Island have already moved to aerobic units which treat effluent to a higher standard than do standard systems.

Recommendation 15:

County shall secure a three year contract with a testing facility to assure septic systems are meeting these national standards; annual fees shall be collected to cover the cost of these tests. Monitoring the effectiveness of nitrogen reducing septic systems is an essential component of maintaining and enforcing septic safety standards.

Recommendation 16:

Empower the County Health Department to assess the appropriateness of the size of septic system based on the system's actual use. Because of the unique (seasonal, vacation) use patterns for homes on St. George Island, homes rated for septic systems meant to serve single family homes that actually use the systems in a commercial way pose a significant risk of failure. The Health Department, responsible for septic safety, often sees the results of this habitual over-use and should be authorized to determine the appropriate sized system for a property's actual use.

Recommendation 17:

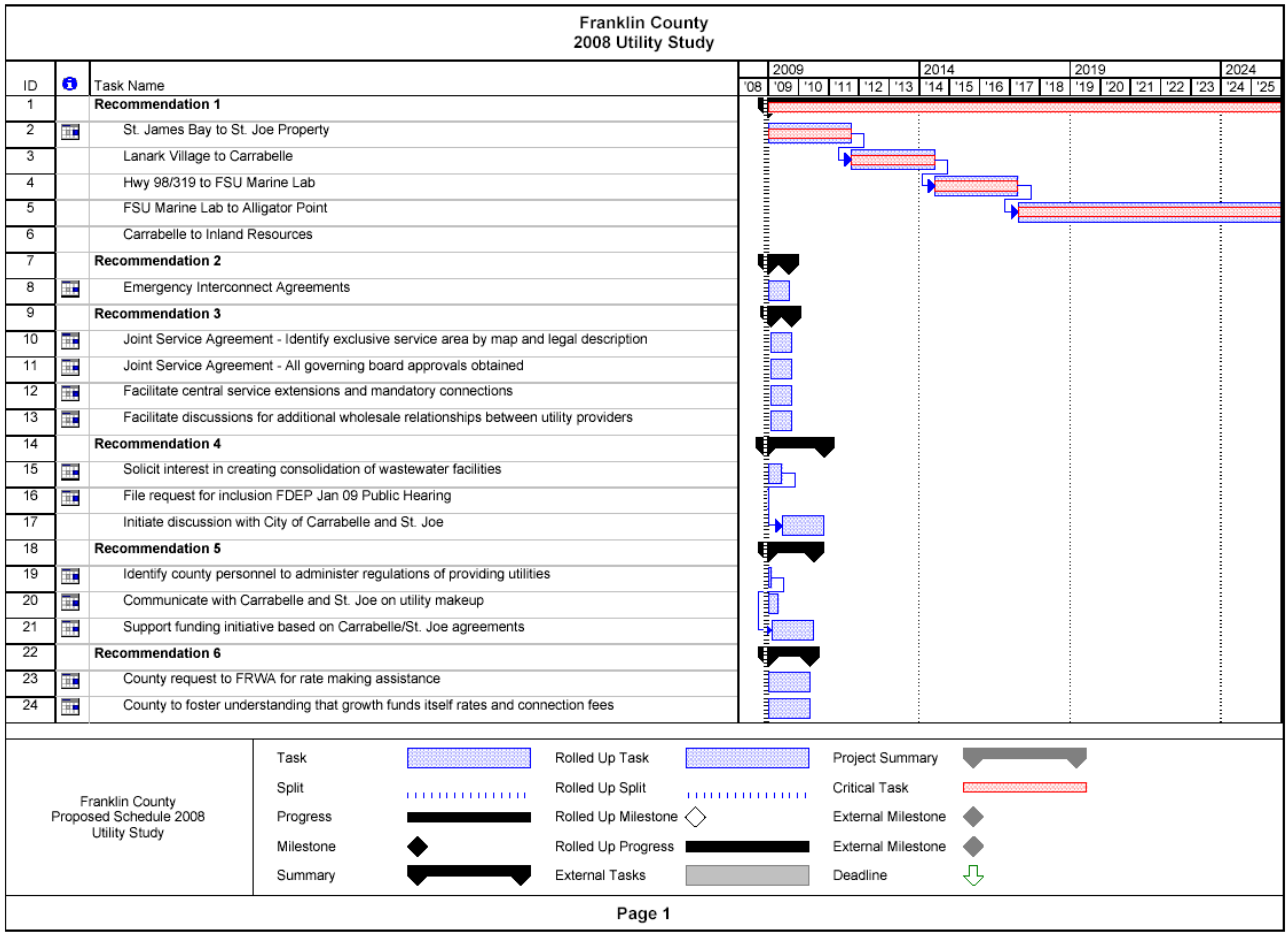
Introduce a program of stake-holder driven education for the benefits of improved septic management practices on St. George Island. Residents and property owners should be made aware of the benefits of safer septic systems in their community. System owners must also be aware of the necessity of system

maintenance and testing to assure compliance with safety standards and to assure community health.

Recommendation 18:

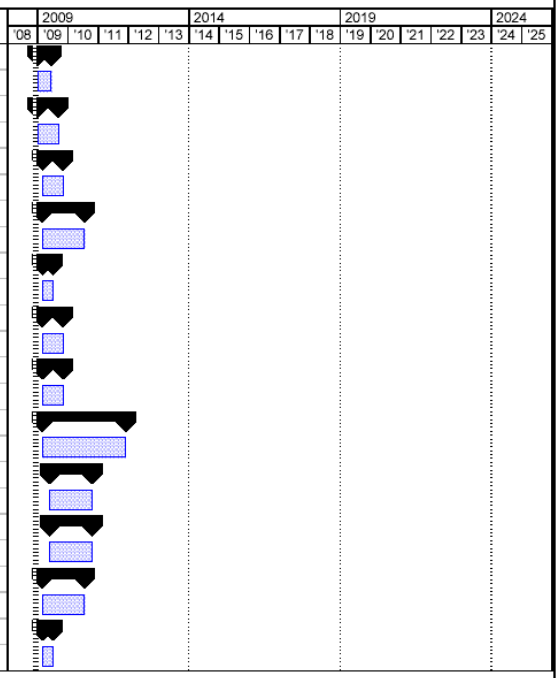
Enact an ordinance outlining the County's goals for better effluent management practices on St. George Island, including the national standards for nitrogen reduction as specified in the NSF 245 guidelines.

The following Grant Chart provides a proposed schedule which Franklin County could follow to implement the recommendations discussed above:



Franklin County
2008 Utility Study

ID	Task Name
25	**Recommendation 7**
26	County to participate in funding effort of each regional utility project
27	**Recommendation 8**
28	County and providers to adopt common policy for utility service to new developments
29	**Recommendation 9**
30	Establish a stormwater utility
31	**Recommendation 10**
32	Pursue grants and low interest loans for stormwater improvements
33	**Recommendation 11**
34	County to establish an advisory committee for education of water contaminants
35	**Recommendation 12**
36	Pursue EPA grant funding for stormwater baffle boxes
37	**Recommendation 13**
38	Implement local mitigation strategy to access Federal Disaster funds for stormwater Mgt.
39	**Recommendation 14**
40	Implement a wastewater Mgt ordinance for StGeorge Island to adopt National eff. standards
41	**Recommendation 15**
42	County to secure a contract with a wastewater testing facility
43	**Recommendation 16**
44	Empower the County Health Dept to assess a wastewater system based on meter usage
45	**Recommendation 17**
46	County to introduce a septic system education program
47	**Recommendation 18**
48	Enact an ordinance outlining the County's goals for better effluent management



Franklin County
Proposed Schedule 2008
Utility Study

Task		Rolled Up Task		Project Summary	
Split		Rolled Up Split		Critical Task	
Progress		Rolled Up Milestone		External Milestone	
Milestone		Rolled Up Progress		External Milestone	
Summary		External Tasks		Deadline	

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Recommendation 1	**60 days**	**Jan. 2009**	**Mar. 2032**
St. James Bay to St. Joe Property	720 days	Jan. 2009	Oct. 2011
Lanark Village to Carrabelle	720 days	Oct. 2011	Jul. 2014
Hwy 98/319 to FSU Marine Lab	720 days	Jul. 2014	Apr. 2017
FSU Marine Lab to Alligator Point	2400 days	Apr. 2017	Jun. 2026
Carrabelle to Inland Resources	1500 days	Jun. 2026	Mar. 2032
Recommendation 2	**180 days**	**Jan. 2009**	**Sep. 2009**
Emergency Interconnect Agreements	180 days	Jan. 2009	Sep. 2009
Recommendation 3	**180 days**	**Feb. 2009**	**Oct. 2009**
Joint Service Agreement - Identify exclusive service area by map and legal description	180 days	Feb. 2009	Oct. 2009
Joint Service Agreement - All governing board approvals obtained	180 days	Feb. 2009	Oct. 2009
Facilitate central service extensions and mandatory connections	180 days	Feb. 2009	Oct. 2009
Facilitate discussions for additional wholesale relationships between utility providers	180 days	Feb. 2009	Oct. 2009
Recommendation 4	**508 days**	**Dec. 2008**	**Nov. 2010**
Solicit interest in creating consolidation of wastewater facilities	120 days	Jan. 2009	Jun. 2009
File request for inclusion FDEP Jan 09 Public Hearing	30 days	Dec. 2008	Jan. 2009
Initiate discussion with City of Carrabelle and St. Joe	365 days	Jun. 2009	Nov. 2010
Recommendation 5	**395 days**	**Jan. 2009**	**Jul. 2010**
Identify county personnel to administer regulations of providing utilities	30 days	Jan. 2009	Feb. 2009
Communicate with Carrabelle and St. Joe on utility makeup	90 days	Jan. 2009	May 2009
Support funding initiative based on Carrabelle/St. Joe agreements	365 days	Feb. 2009	Jul. 2010
Recommendation 6	**360 days**	**Jan. 2009**	**May 2010**
County request to FRWA for rate making assistance	360 days	Jan. 2009	May 2010
County to foster understanding that growth funds itself rates and connection fees	360 days	Jan.2009	May 2010

Recommendation 7	**120 days**	**Jan. 2009**	**Jun. 2009**
County to participate in funding effort of each regional utility project	120 days	Jan. 2009	Jun. 2009
Recommendation 8	**180 days**	**Jan. 2009**	**Sep. 2009**
County and providers to adopt common policy for utility service to new developments	180 days	Jan. 2009	Sep. 2009
Recommendation 9	**180 days**	**Mar. 2009**	**Nov. 2009**
Establish a stormwater utility	180 days	Mar. 2009	Nov. 2009
Recommendation 10	**365 days**	**Mar. 2009**	**July 2010**
Pursue Grants and Low Interest Loans for Stormwater Improvements	365 days	Mar. 2009	July 2010
Recommendation 11	**90 days**	**Mar. 2009**	**July 2009**
Establish an Advisory Committee for education	90 days	Mar. 2009	July 2009
Recommendation 12	**180 days**	**Mar. 2009**	**Nov. 2009**
Pursue EPA grant funding for baffle boxes	180 days	Mar. 2009	Nov. 2009
Recommendation 13	**180 days**	**Mar. 2009**	**Nov. 2009**
Establish Local Mitigation Strategies to Access Federal Funding	180 days	Mar. 2009	Nov. 2009
Recommendation 14	**720 days**	**Mar. 2009**	**Dec. 2011**
Implement a wastewater ordinance for SGI to meet national effluent stds	720 days	Mar. 2009	Dec. 2011
Recommendation 15	**365 days**	**June 2009**	**Oct. 2010**
Contract with a wastewater testing facility	365 days	June 2009	Oct. 2010
Recommendation 16	**365 days**	**June 2009**	**Oct. 2010**
Empower Health Department to Assess Septic Size vs. Actual Use	365 days	June 2009	Oct. 2010
Recommendation 17	**365 days**	**Mar. 2009**	**July 2010**
Establish a program of septic system education for stakeholders on SGI	365 days	Mar. 2009	July 2010

Recommendation 18	**90 days**	**Mar. 2009**	**July 2009**
Enact an ordinance outlining septic standards and mgmt. practices for SGI	90 days	Mar. 2009	July 2009

Effecting Economy of Scale:

Public utilities may achieve greater efficiency through economies of scale. Economies of scale are a reduction in cost per unit resulting from increased production, realized through operational efficiencies.

Economies of scale can be accomplished so that as production increases, the cost of producing each additional unit decreases. Typically, as the customer base of a utility grows, the cost per unit served diminishes since fixed costs are shared over an increased number of units.

Any size utility can enjoy economy of scale by expanding its scale of operation. The common efficiency strategies are purchasing (bulk buying of materials through long-term contracts), managerial (increasing the specialization of managers), and financial (obtaining lower-interest charges when borrowing from banks and having access to a greater range of financial instruments) efficiencies. Each of these factors reduces the long run average costs of production.

The issue confronting the County is how to best cultivate the growth that provides the maximum benefits for both current and future residents. Complying with the increased scrutiny of federal and state regulatory authorities on regional issues such as water and wastewater service will be streamlined with a more efficient system. Central water and wastewater facilities not only achieve the County's water goals, but also are an asset which will attract commercial interests, and thus jobs, to the County.

By implementing the first recommendation, the County will participate with the Cities, Special Districts, and private purveyors to extend water service to citizens along the routes as identified in the table above. The rate of future growth and contributions from developers and commercial interests will determine the timing of construction of the project phases for capital improvements. Each purveyor may be required to participate in the bulk purchase or sale of water (depending on the entity or entities which fund the individual main extensions) to ensure the overall water main infrastructure is completed over time. The end result will be stronger utilities with larger customer bases, multiple water sources, reliability, and improved water quality.

The Cost of Inaction:

By taking no action, Franklin County may bear the following costs:

- The state legislature may not continue to fund community budget issue requests (CBIR) as a result of not acting to address responsibly regional water and wastewater issues.
- Loss of opportunity for the most safe, economical, and environmentally friendly water and wastewater services County wide (absence of synergy, efficiency and redundancy among purveyors).
- Possible conflict, and potential litigation, between the various purveyors as they dispute territories and the ability to serve new developments.
- Possible harm to the public and the environment as purveyors choose profits in growth areas and forego construction of a central wastewater service that may have a higher initial cost.
- More costly replacement of private septic systems and retrofit to implement central wastewater systems.
- Long-term insecurity of water supplies as a result of failure to identify additional water resources and the piping network/interconnects.
- Harm caused by uncoordinated urban development.

2.0 Introduction

2.1 Background:

Meridian Planning, Inc. has performed a Water and Sewer feasibility study. The study team evaluated three (3) primary areas of concern as follows:

1. overview of the current regulatory and utility landscape;
2. detailed analysis of existing facilities and capabilities;
3. guidance for implementation of the options discussed

The County has undergone significant growth in the past 10 years. During this time the County was required to address development pressures. In certain situations, these pressures were exacerbated by utilities willing to provide service to the unincorporated areas of the county. While beneficial with respect to eliminating wells and septic tanks, this situation has removed a measure of control enjoyed by the County to manage the direction of growth. During the past two years these pressures have eased in reaction to the downturn in the real estate market. This lull provides an opportunity for the County to transition from a reactive to a proactive position by engaging in a coherent regional utility plan.

The provision of water and sewer utility service yields two main governmental purposes. Public health is promoted through the development of a well regulated, centralized water and sewer service. Such service provides the highest quality drinking water and protects the natural resources from contamination associated with on-site (septic) type wastewater disposal systems. In addition, it has long been recognized that in areas where centralized water and sewer service are available, there exists a greater attraction for higher density residential and commercial growth. This may occur in either an organized or haphazard fashion. Over the past decade, many counties have recognized

that by staying out of the water and sewer utility business, they have, in effect, taken a back seat in determining the type and direction of growth within their respective boundaries.

A regional water and sewer service plan provides the County with a measure of control over the growth that is inevitable. By developing and implementing a regional utility plan, the County may ensure that development of the entire County is conducted in the most efficient and economic manner, while taking into account concerns about sensitive environmental resources located within the County.

The following table shows growth projections for Franklin County through the year 2030.

Florida, April 1, 2010 County Population Estimates and Projections for 2010–2030 (continued)

County	Projections, April Estimate				
	2000	April 1, 2006	2025	2010	2030
DUVAL		879,235			
938,000	960,100	973,300	906,000	980,100	
1,017,000	1,094,400	1,143,900	944,100	999,900	
1,101,000	1,221,900	1,314,100	981,300	1,070,400	
ESCAMBIA		309,647			
320,000	325,000	328,000	313,900	329,600	
340,000	355,700	369,300	323,800	382,000	
361,000	389,300	417,400	333,100	415,900	
FLAGLER		89,075			
124,000	139,900	150,700	106,100	157,800	
141,000	168,000	192,200	113,100	215,100	
159,000	201,300	245,800	119,700	293,100	
FRANKLIN		11,916			
12,000	12,100	12,100	11,900	12,000	
13,000	13,700	14,200	12,400	14,200	
14,000	15,400	16,600	12,900	17,900	
[illegible]	46,700	49,200	46,800	48,900	
52,000	53,900	55,500	50,300	56,900	
55,000	59,000	62,600	51,800	66,700	
GILCHRIST		16,703			
17,000	17,400	17,000	17,100	16,300	
20,000	22,700	24,600	18,600	26,300	
24,000	28,400	33,000	20,000	37,900	
GLADES		10,796			
11,000	11,100	11,000	11,100	10,800	
12,000	12,600	13,000	11,600	13,400	
13,000	14,700	15,700	12,100	16,200	
GULF		16,509			
16,000	15,600	15,100	16,300	14,500	
18,000	19,000	19,700	17,300	20,400	
20,000	22,500	24,600	18,300	26,900	
HAMILTON		14,517			
14,000	14,100	13,800	14,400	13,600	
15,000	16,000	16,400	15,000	16,800	
16,000	17,900	19,100	15,600	20,300	
HARDEE		27,186			
27,000	28,300	28,500	27,300	28,700	
29,000	30,900	32,100	28,400	33,700	
31,000	33,900	36,300	29,200	38,800	
HENDRY		38,678			
41,000	42,200	42,900	39,700	43,200	
44,000	47,600	50,400	41,400	52,900	
48,000	53,700	59,300	43,000	64,800	
HERNANDO		157,006			
174,000	182,000	186,000	165,100	188,000	
193,000	212,300	228,500	174,000	243,700	
213,000	246,300	279,000	187,300	313,300	
HIGHLANDS		96,672			
103,000	106,000	107,700	99,500	108,600	
112,000	119,700	126,500	103,700	132,800	
121,000	134,500	148,700	107,800	162,900	
HILLSBOROUGH		1,164,425			
1,235,000	1,336,500	1,370,700	1,220,300	1,392,300	
1,394,000	1,507,600	1,607,000	1,272,300	1,498,600	
1,509,000	1,701,000	1,892,900	1,322,000	1,688,500	

Bureau of Economic and Business Research 5

The desire is to provide infrastructure within the county, to enable connections to a public water and/or wastewater system, and thereby reduce the overall number of future private water wells and septic tanks. Population increases require the identification of new water sources to limit these private wells and septic tanks.

Septic tank effluent, which contains significant concentrations of pathogens and nutrients, has traditionally been discharged to soil, sand, or other media absorption fields for further treatment through biological processes, absorption, filtration, and infiltration into underlying soils. Conventional systems work well if they are installed in areas with appropriate soils and hydraulic capacities, and receive proper ongoing maintenance. The goal should be to provide central wastewater service to all citizens within the utility service area, where feasible. Good public policy would require replacing septic systems in areas where failures occur and become predominant.

3.0 Utility Purveyors

3.1 Review of Existing Utility Resources (Purveyors)

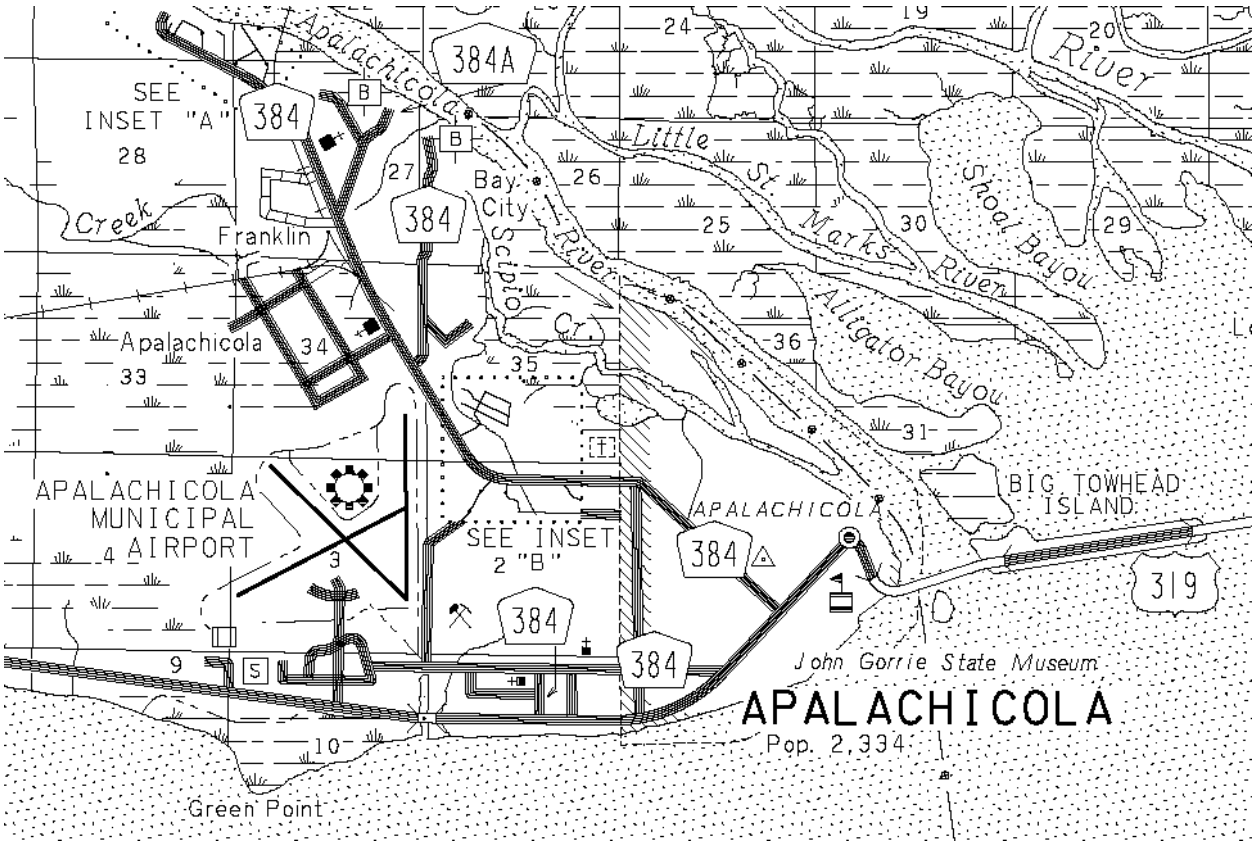
Currently there exist three types of water and sewer utility purveyors in Franklin County:

- Municipalities,
- Special Districts
- Private Providers

The cities of Apalachicola and Carrabelle provide both water and sewer within and outside their respective municipal boundaries. The Lanark Village and Eastpoint special districts provide both water and sewer service while the Alligator Point special district only provides water service. Finally, the investor owned (private) utilities are authorized by the Florida Public Service Commission to provide utility services to County residents within their respective service territories.

3.2 Municipalities

City of Apalachicola - The City of Apalachicola ("Apalachicola") operates a water and sewer system serving residents of Apalachicola and extends west outside the municipal boundary. Apalachicola's system is constrained by its eastern boundary - the Apalachicola River and estuary system. Unlike Carrabelle, Apalachicola does not provide service on the east side of the Apalachicola River and has no plans to do so.

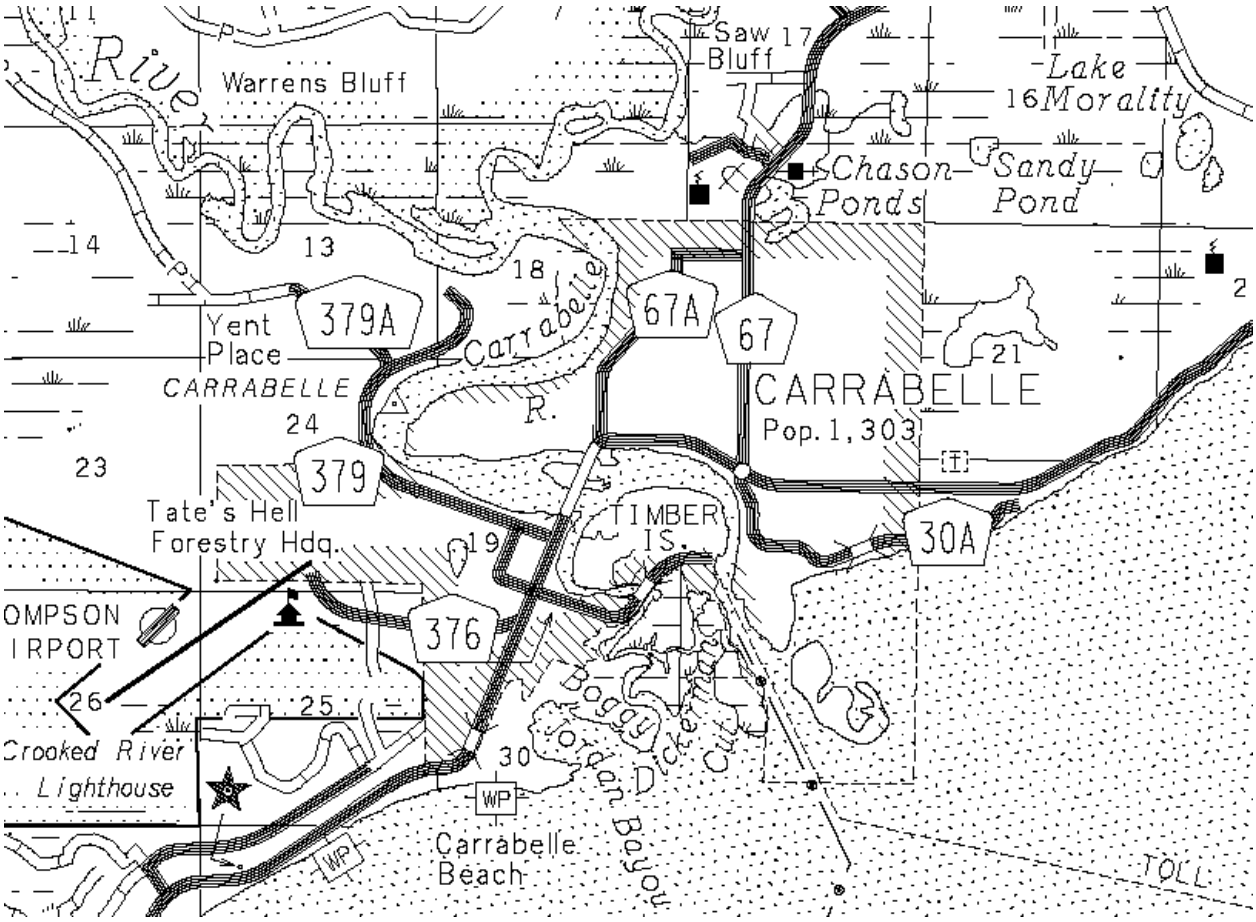


City of Apalachicola

Over the past ten years, the City of Apalachicola has worked diligently with their consulting engineer to upgrade their water and wastewater infrastructure. Many of the major components have undergone renewal and replacement.

<u>*City of Carrabelle*</u> - The City of Carrabelle ("Carrabelle") operates a water and a wastewater treatment plant (1.3 million gallon per day-average daily flow "MGD-ADF"). Carrabelle's facilities have been constructed over the past 10 years from the proceeds of approximately $28 million in State grant and loan monies. Carrabelle has aggressively extended service to areas outside of its jurisdictional limits. In 2004, Carrabelle bypassed Lanark Village in order to extend service to private developments (St. James Bay) located in the unincorporated areas of the County. Development in these areas

consists of commercial and residential uses that are have a higher unit density than development in areas of the County not served by central water and sewer.



City of Carrabelle

The wastewater treatment plant is a state-of-the-art advanced wastewater treatment system (AWT). The current wastewater flow to the treatment plant is approximately 250,000 gallons per day, with minor seasonal fluctuations. The reserve capacity and ability of the Carrabelle wastewater treatment plant to expand its capacity to 2.2 MGD positions Carrabelle as the regional provider of wastewater service. Like Apalachicola's, Carrabelle's service in and around the City is complicated by natural features like the Carrabelle River. Carrabelle has resolved this issue through completion of a directional boring under the River and installation of a force main in 2007.

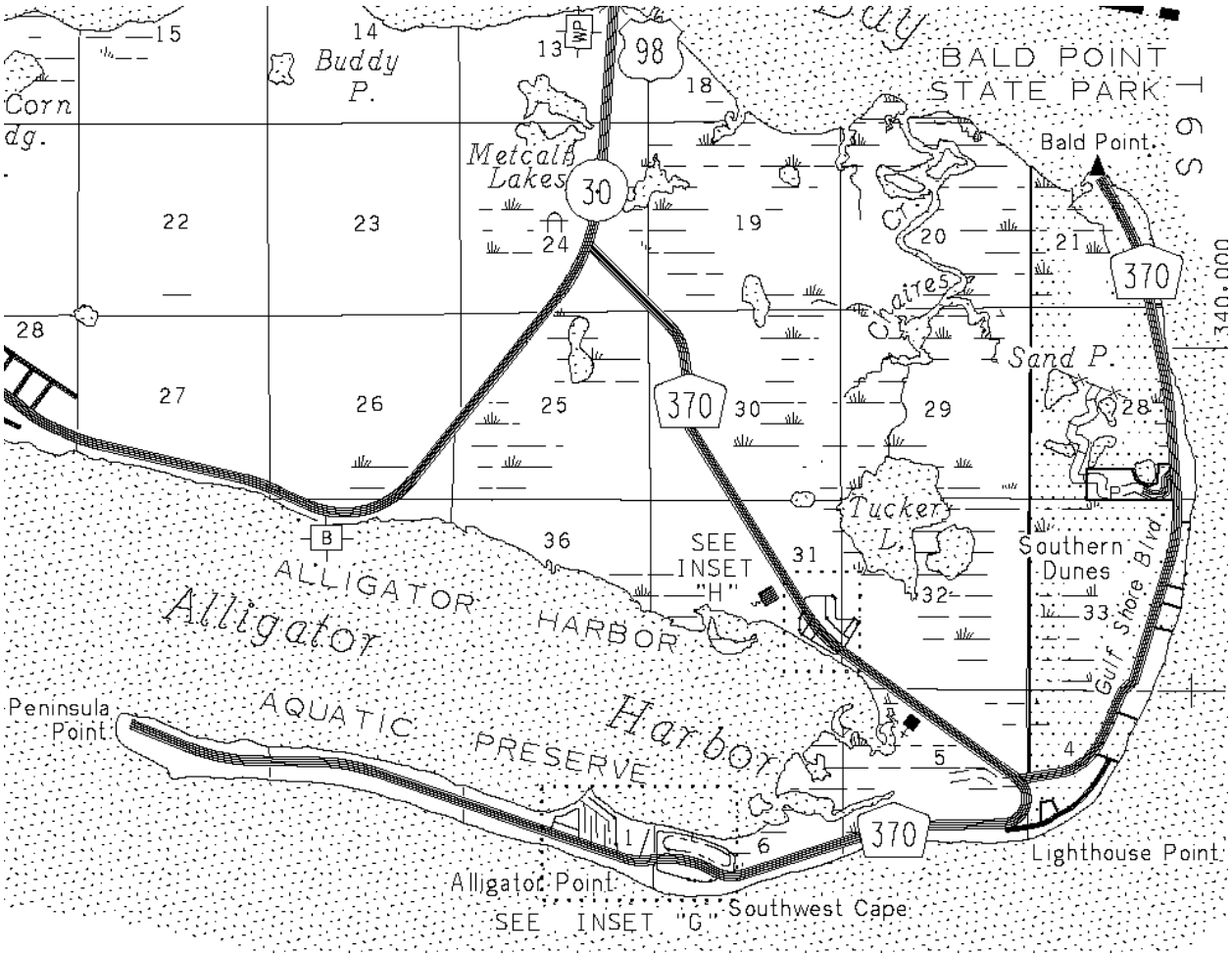
Carrabelle's water system operates both east and west of the Carrabelle River. The City is in the process of expending $4.5 million on a state-of-the-art pre-treatment system for its raw water in order to resolve a trihalomethane issue.

Other Considerations - The municipally owned and operated utilities are outside County or Public Service Commission ("PSC") regulatory jurisdiction. The Cities of Apalachicola and Carrabelle maintain the largest and most sophisticated wastewater treatment facilities in the County. Each provides service to City residents as well as County residents located outside of their respective municipal boundaries. The City of Carrabelle has aggressively expanded the provision of both water and wastewater service outside its municipal boundaries. The City of Carrabelle provides water and sewer service beyond its city limits as far as Carrabelle Beach to the west and within one mile of St. Joe's Summercamp to the east, along State Road 98. This does not take into consideration the large scale voluntary annexation of property to the north and west of Carrabelle. The impetus for these voluntary annexations on the part of both the landowner and the City is assumed to be the provision of centralized water and sewer service. The city anticipates future voluntary annexations.

3.3 The Special Districts

Alligator Point Water District - The Alligator Point Water District ("Alligator Point") was established by the County. Alligator Point is an independent special district located in unincorporated Franklin County and provides only water service to residents within its boundaries.

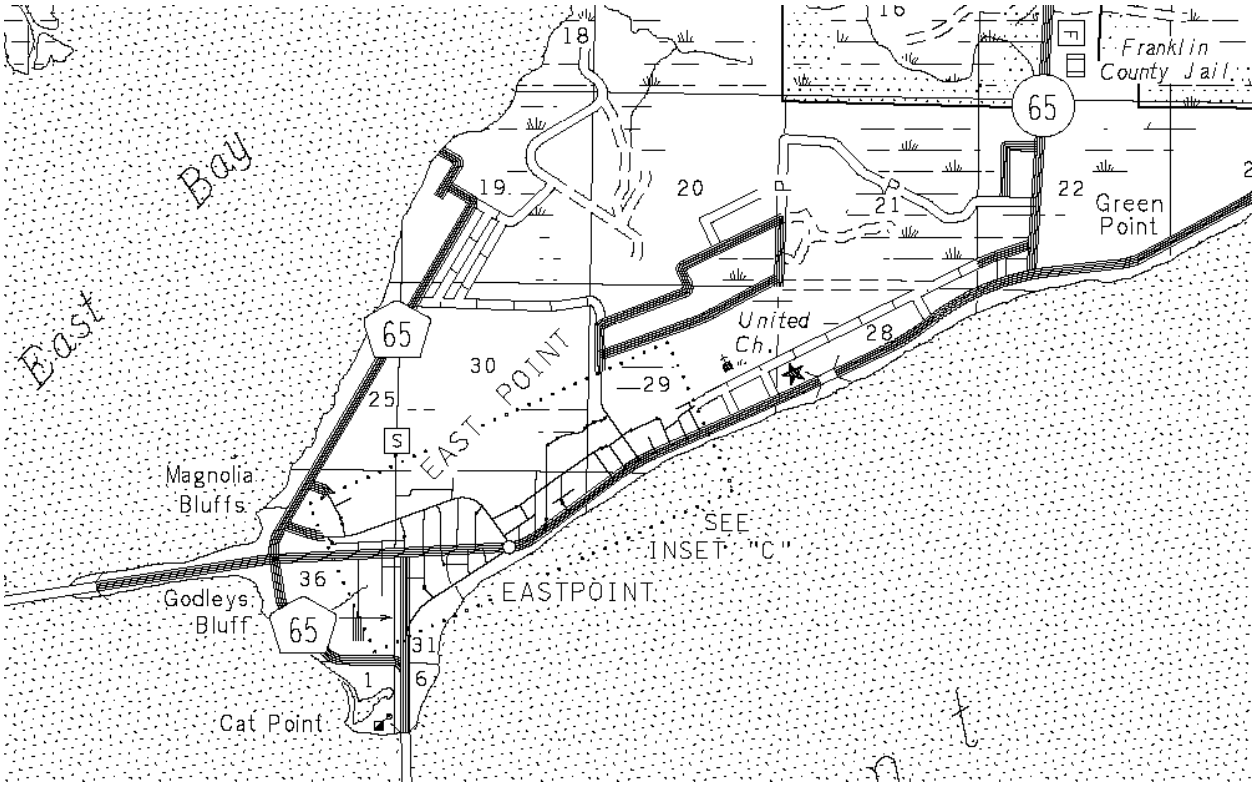
The Alligator Point water supply wells have suffered from salt water intrusion, typified by elevated chloride levels. As a result, the district seeks alternative sources of raw water.



Alligator Point

Eastpoint Water and Sewer District - The Eastpoint Water and Sewer District ("Eastpoint") was also established by the County. Eastpoint is an independent special district located in unincorporated Franklin County and it provides water and wastewater service to the residents within its boundaries. Eastpoint also operates a wastewater

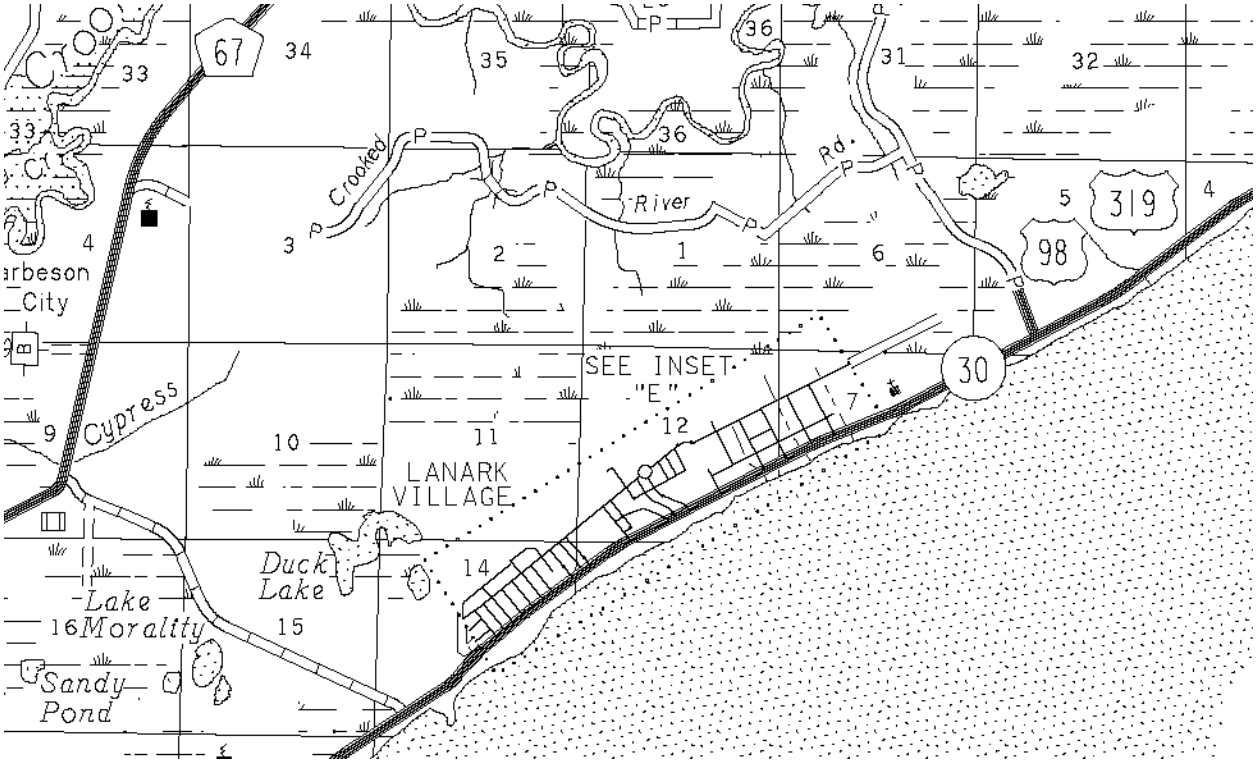
treatment plant.



Eastpoint Water and Sewer District

Lanark Village Water and Sewer District - The Lanark Village Water and Sewer District ("Lanark") was established by the County on November 6, 1973. Lanark is located within the unincorporated area of Franklin County and is an independent special district. Lanark provides both water and sewer service within the district boundaries.

Lanark is currently in the process of being dissolved and the residents currently served by the Lanark system will become customers of the City of Carrabelle water and sewer system. This "merger" of the Carrabelle and Lanark systems is likely to be finalized in 2008. This merger serves as an indicator of the future growth of Carrabelle as a regional provider of water and sewer service.



Lanark Village Water and Sewer District

Regulatory Framework - Chapter 189, Florida Statutes, governs the creation and activities of "special districts", the purpose of which are to assist with the management and financing of capital infrastructure facilities and services, including water and wastewater systems. A special district may be created by local ordinance, general law, special act, or by rule of the Governor and Cabinet, and it operates within a limited geographical area. As of April 29, 2008, there were 1572 special districts in Florida.[1] Special districts are governed by a board of directors that is either elected or appointed. An advantage of a special district is that the governing board may be comprised of individuals with expertise that is relevant to the issue(s) the special district is addressing.[2]

[1] Official List of Special Districts Online, www.floridaspecialdistricts.org.

[2] Another benefit associated with special districts is that only those who stand to benefit from the services provided by the special district pay, which is considered by some to be a more equitable distribution of

A special district that is created by a county is generally referred to as a dependent, as opposed to an independent, special district. Dependent special districts may be created by ordinance, subject to approval of the governing board of any incorporated areas that are located within the boundaries of the proposed special district. When a special district is created, it must submit a copy of the ordinance or other instrument creating it to the Florida Department of Community Affairs ("DCA") within 30 days of the adoption thereof.

Part II of Chapter 153, Florida Statutes, is commonly referred to as the "County Water and Sewer District Law." The Law authorizes the board of county commissioners ("Board") to create one or more water and sewer districts within the County, upon a determination by the board that such district is necessary and in the public interest.[3] Such district must consist of unincorporated, contiguous areas of the County; such district may not, however, encompass the entire County.

After public hearing and upon a determination by the Board that such district is necessary and in the public interest, an election shall be called to submit the question to the qualified electors residing in the proposed district. The Board may also submit to the qualified electors who are freeholders[4] residing in the proposed district the question of whether to issue general obligation bonds to pay for all or part of the proposed improvements. If a majority of the qualified electors vote in support of the creation of such district, then the Board shall, by resolution, declare the district created, and if a majority of the qualified freehold electors residing in the proposed district vote in favor of the issuance of general obligation bonds, then such bonds shall be approved.

costs. §1-1, Florida Special District Handbook (updated Sept. 2005). In addition, special districts may save money for those who use the services provided by the district because special districts enjoy tax-free purchases, participate in state programs and initiatives, and may sell tax-exempt bonds. Special District Basics (Oct. 2007).

[3] The Law also authorizes the establishment of such a district via a petition process. §153.53(2) – (3).

[4] A "freeholder" is one who holds title to land.

The Board of County Commissioners serves as the ex officio governing board of the district, the clerk of the circuit court serves as the ex officio clerk, and treasurer of the district and the county tax collector serve as the ex officio tax collector of the district.[5] Expenses associated with the creation of any such district are paid out of County funds, but constitute reimbursable expenses.

Any combination of two or more counties or municipalities may create regional water supply authorities, as may the Governor and Cabinet. [6]

3.4 The Private Providers

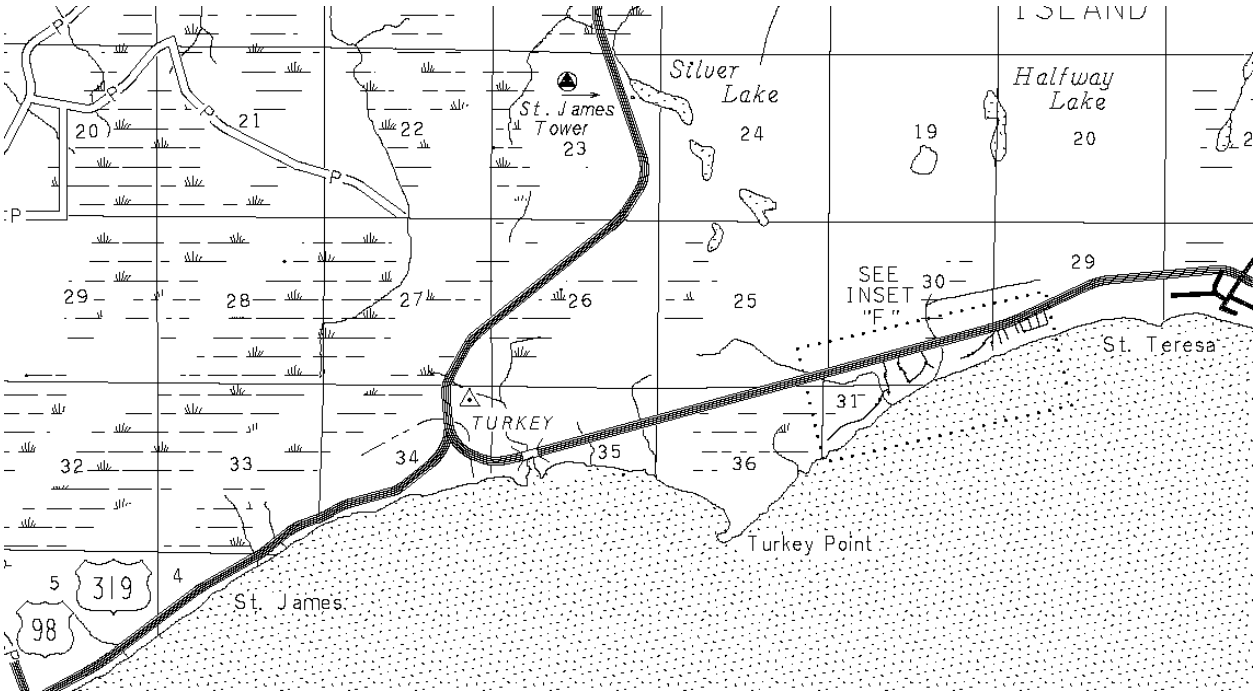
[5] Where the petition method is used, the Board may call an election for three people to serve as commissioners of the proposed district. §153.53(3).

[6] "[R]egional water supply authorities may be created for the purpose of developing, recovering, storing, and supplying water for county or municipal purposes in such a manner as will give priority to reducing adverse environmental effects of excessive or improper withdrawals of water from concentrated areas." §373.1962(1). Such interlocal agreements must be approved by the Secretary of the Florida Department of Environmental Protection. §373.1962(1).

Following the adoption of Chapter 367, Florida Statutes, in 1957, the PSC took over regulation of privately owned water and sewer utilities in Franklin County. The County only has two such utilities, the St. James Island Utility Company ("St. James") and Water Management Services, Inc. ("WMSI"). Both WMSI and St. James are regulated by the PSC.

St. James Island Utility Company - St. James was certificated by the PSC on August 5, 2004. It is authorized to provide water and wastewater service within an area mirroring the area commonly known as Summercamp. St. James is wholly owned by the St. Joe Company.

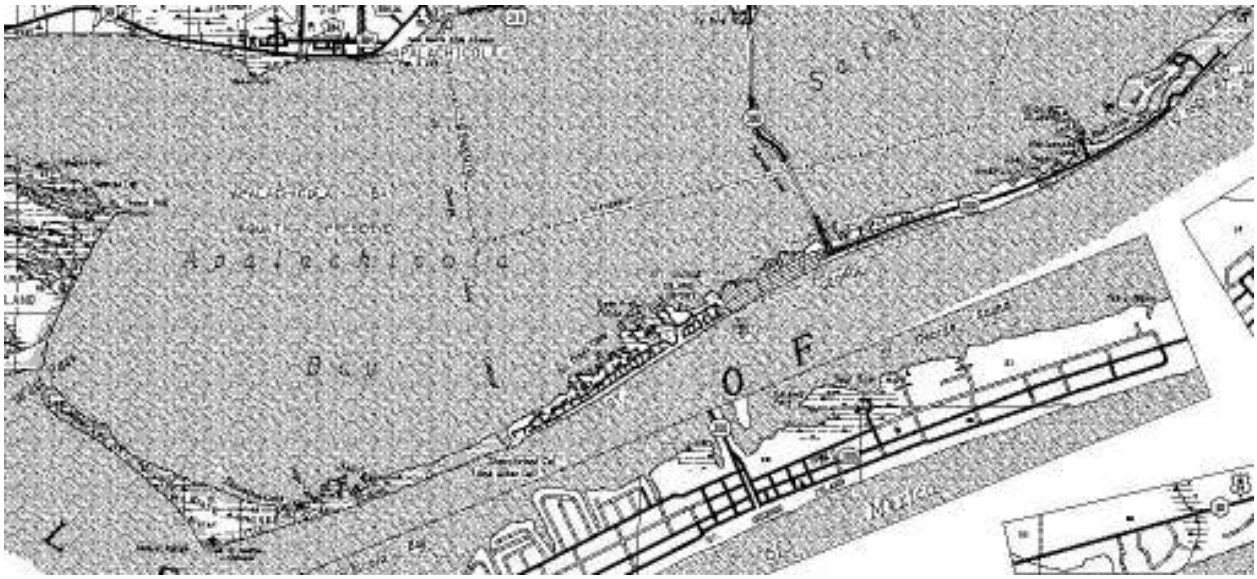
Wastewater treatment will be provided by a 120,000 gallon per day facility with percolation ponds for disposal. Water supplies are provided by a pair of 8 inch wells. As recent as November 20, 2007 the PSC staff recommended approval of an application by St. James to expand its water and wastewater service territory. The expansion is nominal and the stated purpose is the inclusion of additional Summercamp common facilities.



St. James Island Utility Company

Water Management Services, Inc. – WMSI is the successor to St. George Island Utility Co., LLC, which was certificated on March 31, 1978. WMSI provides water service to approximately 1,500 customers located on St. George Island. The supply wells are located on the mainland in Eastpoint and water is pumped to the island through a pipe that is attached to the St. George Island Bridge.

This map shows St. George Island's location relative to Eastpoint.



3.5 The PSC Regulatory Framework

Under PSC regulation private utility companies apply to the PSC for the right to provide utility service to County residents within a delineated geographic territory. This territory is called a service territory and the PSC has the power to grant a utility the exclusive right to provide utility service within this territory. In addition, the PSC regulates the rates and charges a utility may require of customers in connection with the provision of water and/or sewer utility service.

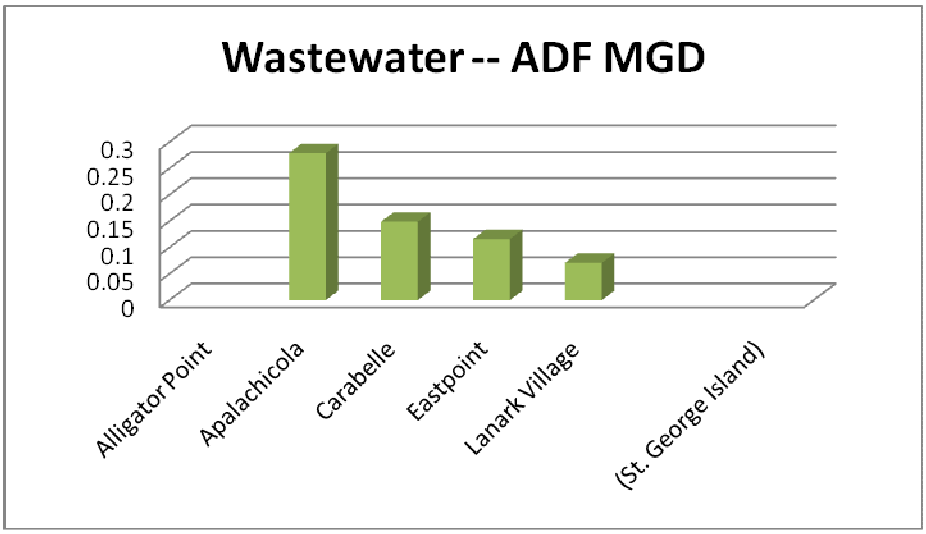
Presently, a developer that wishes to create a utility or a utility owner wishing to expand his or her utility to provide service to a development would apply to the PSC for authorization to do so. The best interest of Franklin County is not the focus of the PSC decision on this matter. The PSC is only required to "consider" the interests of the County when making its decision on the utility/developer's application. The PSC may grant the utility/developer's request even where it is at odds with the County's

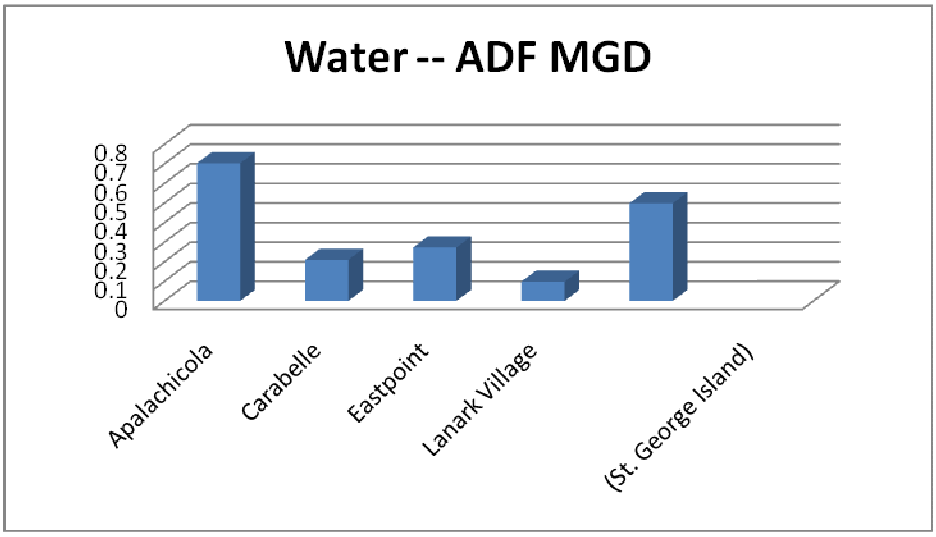
comprehensive plan and desired pattern of growth. Consequently, many counties across the state have taken back regulatory authority from the PSC as provided in Chapter 367, Florida Statutes.

The seven utility purveyors under review in this report are capable of meeting the future utility needs within Franklin County, provided they work together. The following is a summary of each utility purveyor comments received during the interview process.

3.6 Summary of Utility Providers

Average Daily Flow Water Table	ADF – MGD wastewater	ADF – MGD Water
Alligator Point		0.087
Apalachicola	0.279	0.703
Carabelle	0.149	0.210
Eastpoint	0.116	0.273
Lanark Village	0.071	0.098
Water Management Services, Inc. (St. George Island)		0.499




Water -- ADF MGD
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Apalachicola
Carabelle
Eastpoint
Lanark Village
(St. George Island)

4.0 Agency Review

4.1 General

The review team met with agencies that regulate and/or support the public utility providers within Franklin County; specifically, the Florida Department of Regulation, the Northwest Florida Water Management District and the Florida Rural Water Association. Each agency had a good working knowledge of the current utility issues faced by each purveyor. The agencies have a history of supporting purveyors within the county to ensure water quality is achieved while meeting the growing demand placed on the utilities over the past ten years and address the associated environmental issues.

Of paramount importance is the fact that each agency has been involved with purveyors throughout the County to study and/or fund capital improvements in support of "regionalization of water and wastewater utilities." Several of the projects and studies are in place at this time, as follows:

- A new advanced wastewater treatment and disposal facility in the City of Apalachicola
- A new advanced wastewater treatment and disposal facility in the City of Carrabelle.
- Effluent reuse capabilities in both Apalachicola and Carrabelle
- Upgraded and expanded collection infrastructure in Apalachicola and Carrabelle
- In-depth studies with extensive field evaluation of sites viable for inland sources of clean-safe water, free of saltwater intrusion potential
- In-depth studies of infrastructure scenarios necessary to interconnect several utilities in an effort to provide a continuous supply of clean, safe water to the end customers with redundancy and reliability.

This report will illuminate the concerted, ongoing effort of these agencies, consultants, and purveyors within the County to share resources, and encourage all purveyors to participate in a regional approach to utility services. If conducted properly, the end benefit will be a stronger central utility that will provide a safe, cost effective service/product to the end customer.

4.2 Florida Department of Environmental Protection

The regulator branch of FDEP was very helpful in providing recent annual reports on each of the purveyors within Franklin County. The reports provide detailed information on the infrastructure makeup, condition, and demand. FDEP Annual Reports for each utility are located in Appendices 1 and 2.

The funding branch of FDEP known as Water Facilities Funding has provided in excess of $50,000,000 grant funding in conjunction with State Legislative Appropriations over the past 7 years. These funds were earmarked for water and wastewater infrastructure improvements. With the current Franklin County population at 10,264, this amounts to $4,800 per person in grant funds received by Franklin County through the State of Florida.

4.3 Northwest Florida Water Management District

The NWFWMD is concerned with protection of water resources across the Panhandle of Florida; with the substantial growth over the past 10 years comes greater demand on the water resource. Some wells along the Big Bend Coast have experienced saltwater intrusion.[1]

[1] The NWFWMD recently completed a study of water resources in Franklin County that included field investigation: http://www.nwfwmd.state.fl.us/pubs/rwsp/Region%20V%20RWSP.pdf

Salt water intrusion into the Floridan Aquifer is a paramount concern of the District. The driving force to conduct this study was to find sources of fresh water where salt water intrusion would not be a factor. A few publicly owned wells have experienced salt water intrusion. As the population increases along the coast, the demand on the aquifer to yield large volumes of fresh water escalates beyond the aquifer's ability to deliver. Several test wells were drilled in the "Tate's Hell" area along highway 67, near the Franklin and Liberty County border. The physical and chemical results of the field evaluation indicated the location would be favorable for long term water production.

The following is a sample report from the Tate's Hell study:

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs FL 32715-0597 Phone 407 - 339 - 5984 Fax 407 - 260 - 6110 www.flowerslabs.com
8253 South U.S. Highway 1, Port St. Lucie FL 34952-2860 Phone 772 - 343 - 8006 Fax 772 - 343 - 8089
P.O. Box 1200, Madison FL 32341 Phone 407-973-6878 Fax 407-973-6878

NWFWMD
81 Water Managemernt Dr.
Havana,FL 32333

PO #: 06-1164
Client Project #: Tates Hell
Date Sampled: Jun 28, 2006
Jul 25, 2006; Invoice: 18772

Analysis Report

Lab #: 18772DW1 **Sampled:** 06/28/06 10:00 AM **Desc:** TH3

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Lab pH (units)	7.38	pH	1.00	0.0100	0.0100	10065016	EPA150.1	39-38-4	06/29/06	01:30 PM
Turbidity	1.24	NTU	1.00	0.0100	0.0200	10065027	EPA180.1	G-019	06/30/06	09:30 AM
Aluminum	0.0200 U	mg/L	1.00	0.0200	0.0400	10065113	EPA200.8	7429-90-5	07/03/06	
Antimony	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-36-0	07/03/06	
Arsenic	0.00170 I	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-38-2	07/03/06	
Barium	0.0251	mg/L	1.00	0.00200	0.00400	10065113	EPA200.8	7440-39-3	07/03/06	
Beryllium	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-41-7	07/03/06	
Cadmium	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-43-9	07/03/06	
Chromium	0.0111	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-47-3	07/03/06	
Copper	0.00110 I	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-50-8	07/03/06	
Lead	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7439-92-1	07/03/06	
Nickel	0.00260 I	mg/L	1.00	0.00200	0.00400	10065113	EPA200.8	7440-02-0	07/03/06	
Selenium	0.0191	mg/L	1.00	0.00200	0.00400	10065113	EPA200.8	7782-49-2	07/03/06	
Silver	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-22-4	07/03/06	
Thallium	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-28-0	07/03/06	
Zinc	0.0100 U	mg/L	1.00	0.0100	0.0200	10065113	EPA200.8	7440-66-6	07/03/06	
TDS	490	mg/L	1.00	2.50	5.00	10065138	SM2540C	10-33-3	07/03/06	
Iron	0.0349	mg/L	1.00	0.0100	0.0200	10065245	EPA200.7	7439-89-6	07/03/06	
Manganese	0.0100 U	mg/L	1.00	0.0100	0.0200	10065245	EPA200.7	7439-96-5	07/03/06	
Sodium	12.8	mg/L	1.00	0.500	1.00	10065245	EPA200.7	7440-23-5	07/03/06	
Color	10.0	PCU	1.00	1.00	2.00	10065562	SM2120B		06/29/06	02:15 PM
Odor (TON)	2.00	TON	1.00	1.00	2.00	10065573	SM2150B		06/29/06	
Cyanide	0.00500 U	mg/L	1.00	0.00500	0.0100	10065612	SM4500-CN E	57-12-5	07/06/06	
Foaming Agents (MBAS)	0.200 U	mgLAS/L	1.00	0.200	0.400	10065637	SM5540C		06/29/06	08:00 AM
Hydrogen Sulfide	0.426	mg/L	1.00	0.00100	0.00200	10065732	EPA376.1	7783-06-4	07/03/06	
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10065912	EPA300.0	14797-55-8	06/29/06	03:00 PM

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FL015 KYUSTP: 0007 Page 2 of 6

With the current growth trend down, phasing the project may be preferable, with two production wells at a point acceptable to the NWFWMD and in close proximity to the City of Carrabelle. The report identifies an infrastructure system necessary to deliver the product to the purveyors and customers. The required infrastructure covers approximately 24 miles to serve the City of Carrabelle, Lanark Village, St Joe and Alligator Point, and would need a minimum pipe size of 12". The estimated cost for this infrastructure is $6,000,000.

The following are excerpts from the report:

Table 7.1 Summary of Water Supply Development Projects

Water Supply Development Projects							
Project/Activities	Responsible Entities	Purpose / Objective	Estimated Quantity (Mgal/d)	Time-frame	Funding Amounts & Sources		
					WPSPTF	NWFWMD	Local
7.2.1 Inland Groundwater Source Development and Water Supply Source Protection							
Franklin County Inland Groundwater Source	Franklin County, Utilities	Develop inland alternative water supply source to abate risk of salt water intrusion in coastal wells	3.0	2007 - 2010	$500,000	$500,000	$0
7.2.2 Alternative Surface Water Treatment and Transport Facility Development							
Gulf County Surface Water Supply	City of Port St. Joe	Develop surface water system to reduce impact on coastal production wells	6.0	2007 - 2009	$4,000,000	$0	$16,000,000 to $21,000,000
7.2.3 Utility Interconnects and Infrastructure Improvements							
Water Supply System Facility Interconnects, Enhancements, and Improvements	Local Governments and Utilities	Assist with delivery system interconnections and facility improvements	TBD	2007 - 2011	TBD	TBD	TBD
7.2.4 Reclaimed Water Use							
Water Reuse Facilities	Local Governments and Utilities	Construction of water reuse facilities to replace use of potable water for landscape irrigation and other beneficial uses	<1.0	2007 - 2011	TBD	TBD	TBD

Costs listed reflect total capital cost estimates. Planning-level operation and maintenance costs are generally estimated at $0.30 to $0.80 per 1,000 gallons, but will be further defined in specific project plans.
TBD - to be determined

8.0 Identification of Alternative Water Supply Development Projects

All of the water supply development projects identified in Table 7.1 are related and considered alternative, nontraditional water supply development projects.

9.0 Identification of Multi-jurisdictional Approaches

The multi-jurisdictional approach of the Region V RWSP is to first seek creation of a regional water supply entity or similar utility aggregate to serve the Franklin County ASC. If a regional water supply authority is not feasible or possible, it may be necessary to create interlocal agreements and commitments to develop the appropriate partnerships to operate and maintain a regional water production and distribution network. In Gulf County, multi-jurisdictional approaches are encouraged by the District to ensure the use, protection, and viability of the Gulf County Fresh Water Supply Canal as an alternative source of supply for the City of Port St. Joe and in outlying service areas in Gulf County.

Wastewater Reuse in Region V Wastewater Reuse in Region V

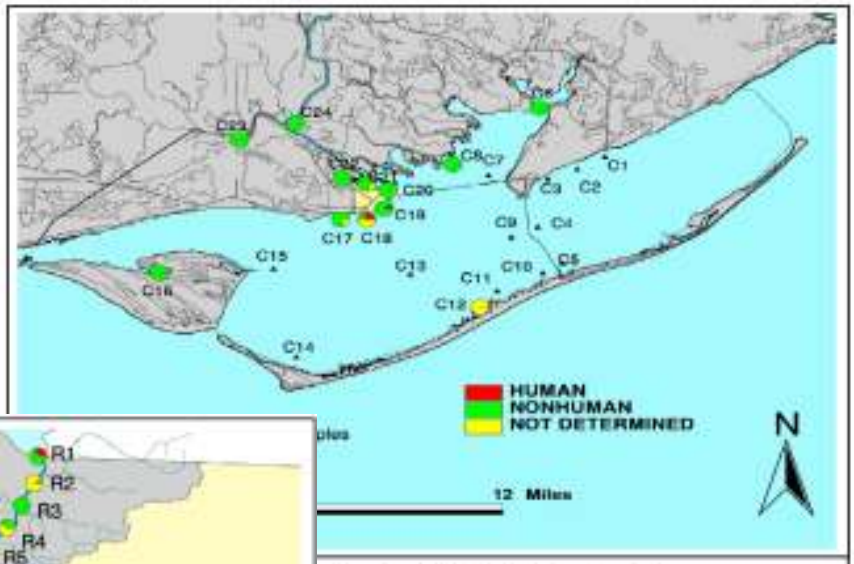
Flow (gpd)	Reuse Type	Area (acres)	Capacity (gpd)	Flow (gpd)	Reuse Type	Area (acres)	Capacity (gpd)
30,000	Grayfield	83	Gainesville	130,000	Grayfield	83	Gainesville
000	Grayfield	88	East Point W&SD	000	Grayfield	88	East Point W&SD
9	Grayfield	16	Lake View Village	20,000	Grayfield	16	Lake View Village 20,000
yfield	83	Golf Course	Recreational	000	Grayfield	83	Golf Course Recreational 000
120	Total	1,000	600,000	120	Total	1,000	600,000

ventory Report DEP, 2005 Reuse Inventory Report DEP, 2005 Reuse In

The District also completed a study titled "An Analysis of Stormwater Inputs to the Apalachicola Bay" by Grady L. Marchman, PE, MLT(ACSP) that outlines the pollution threatening the bay.[2]

[2] The study addresses pollution sources that contribute to the Apalachicola Bay: http://www.nwfwmd.state.fl.us/pubs/apal_stormwater_inputs/apalachicola_stormwater_inputs.htm

The following maps are samples from the study that identify and quantify sources of pollution.



ults of April MAR Coliform Sampling

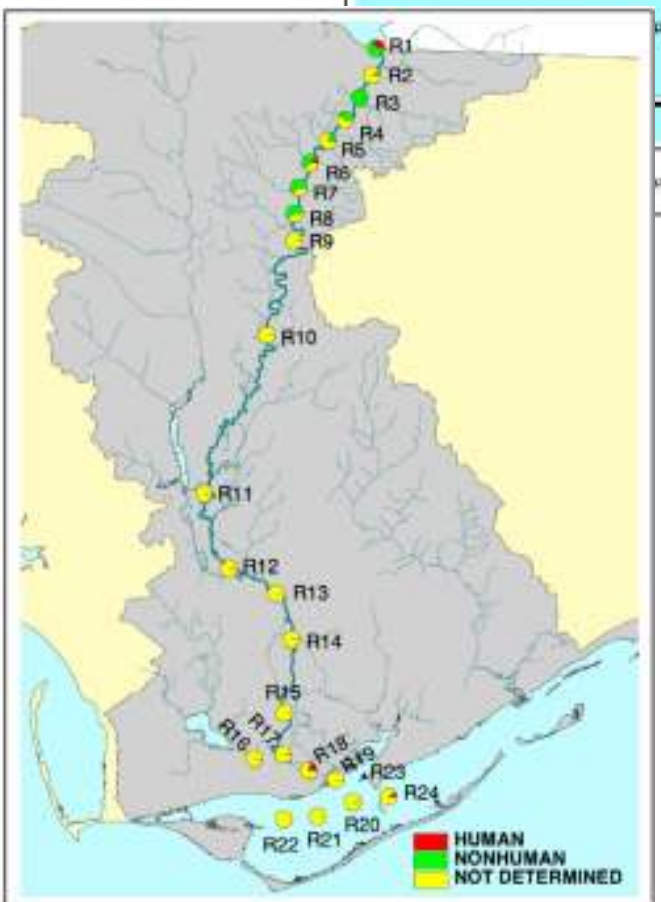
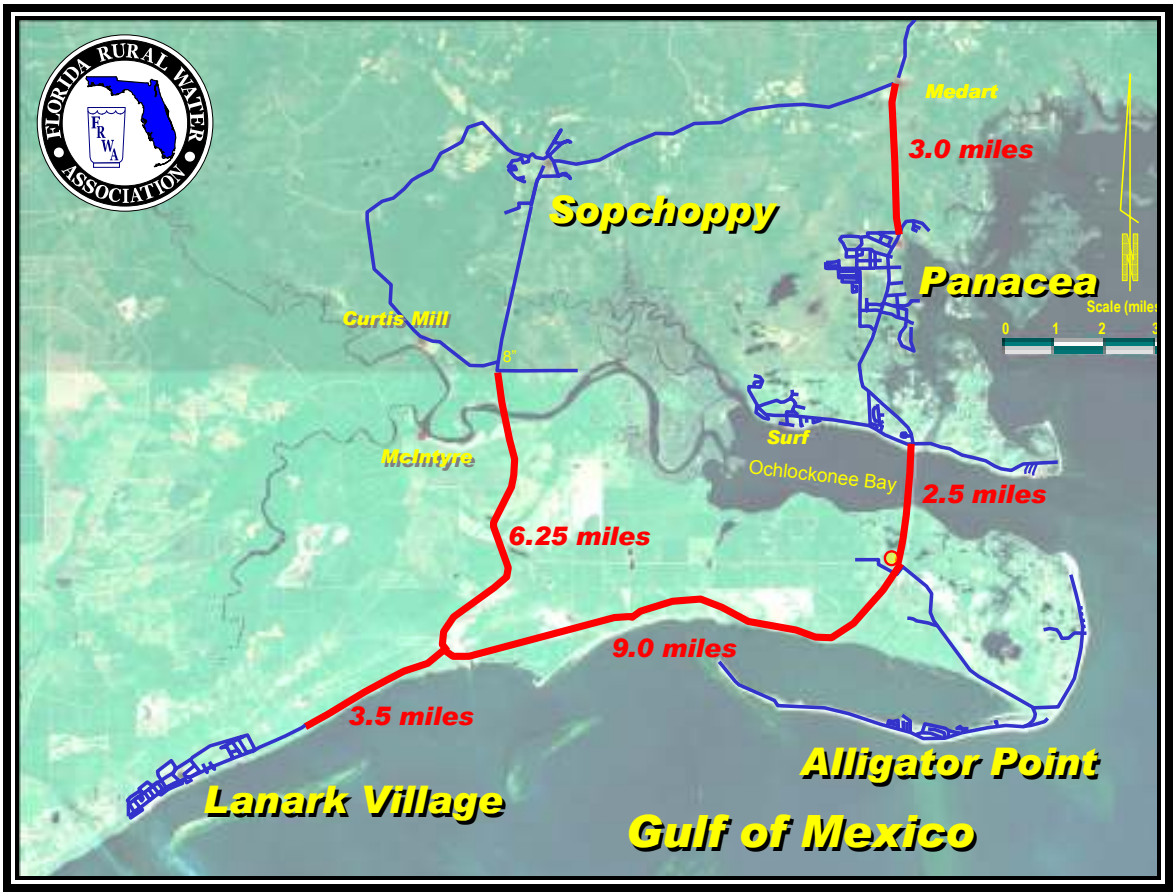


Figure 38: Results of September MAR Coliform Sampling

4.4 Florida Rural Water Association

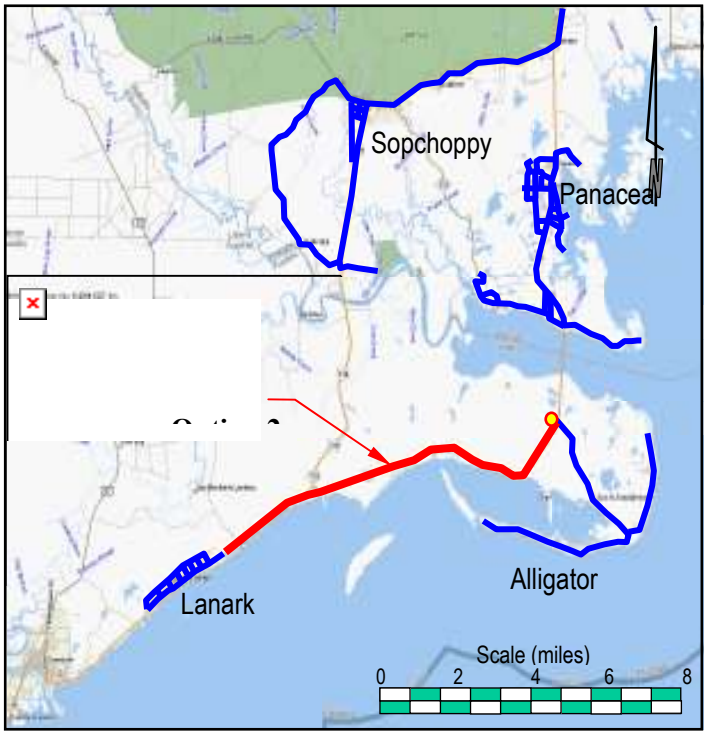
The Florida Rural Water Association has been an advocate for each of the member utilities within Franklin County with regards to rate evaluation, and water and wastewater system review. As a service to the community, FRWA conducted an evaluation of the Alligator Point Utility water supply issue in September 2004 and provided an excellent report with a follow up presentation to each of the utilities identified in the report. This report noted several options available to Alligator Point and adjacent Purveyors with regards to water resources, system redundancy, and reliability, as shown on the map below. This report is included here to illustrate Alligator Point's great need for water resources.



Of particular interest was Option Number 2: Water supply and interconnect from Lanark Village and their "Summary" as follows:

OPTION 2 - LANARK VILLAGE WATER & SEWER DISTRICT

Lanark Village Water & Sewer District is approximately 12.5 miles away. The route includes 3.5 miles along US 98 / SR 30 beginning at the last Lanark Village fire hydrant to the junction with US 319 / SR 377 and 9 miles along US 98 / SR 30. The water line would be installed on the north side of the highway with a few drainage and small creek crossings along the route.



INTERCONNECT.

Costs to interconnect 12.5 miles are estimated at $2,000,000. The waterline size is projected to be 10 or 12-inch and will need to be verified through hydraulic modeling. The existing 6-inch water main may need to be upsized for this project.

CAPACITY.

Based on the most recent sanitary survey:

- Average Daily Demand 71,000 gpd
- Maximum Daily Demand 189,000 gpd
- Total Permitted Capacity 590,000 gpd
- Percent of Design Capacity 32%

Well No.	1	2
Depth Drilled	165-ft	165-ft
Casing Diameter	10-inch	10-inch
Pump Capacity	350 gpm	350 gpm

Lanark Village's capacity with the largest well out of service the wellfield capacity is 350 gpm or 504,000 gpd.

STORAGE.

Lanark Village has 100,000 gallons storage, which is more than adequate for its needs. Using the operational equalization calculation equalization storage is a negative value and fire storage is 56,500 gallons for a total 56,500 gallon storage requirement. Conservatively, one quarter of maximum daily demand is 47,250 gallons and fire flow storage is 60,000 gallons for a total 107,250 gallon storage requirement.

COMBINED DEMAND & CAPACITY.

Combined Demand & Capacity	Lanark Village	Alligator Point	Combined
Average Daily Demand	71,000 gpd	120,000 gpd	191,000 gpd
Maximum Daily Demand	189,000 gpd	400,000 gpd	589,000 gpd
Total Permitted Capacity	590,000 gpd	331,200 gpd	921,200 gpd
Percent of Design Capacity	32% *	121%	64%

* Note: Lanark Village has available capacity for Alligator Point and has terminated reserve capacity pledge to St. James Bay as no agreement was signed.

ADDITIONAL WELL.

At least one additional well may need to be located to supply Alligator Point and have excess capacity. Well capacity would need to be about 350 gpm to provide a comfortable margin for both systems without regard to future demands.

Locating and permitting new wells would be less challenging than in the Panacea area. Lanark Village wells have excellent quality and quantity. Cost to locate and construct a new well at 250 to 350 gpm is estimated at about $200,000.

The benefit to Lanark Village would be to provide additional wells to the system – one of the two would run during normal operation. Assuming that the new wells are located such that they will not negatively influence the conductivity of the existing wells and the salt-water interface, the wellfield can be operated at a combined lower individual withdrawal rate, increasing longevity and maintaining higher water quality. The rate base for Lanark Village would be more stable with bulk water being sold to, and the needed improvements borne by, Alligator Point.

SUMMARY OF COSTS.

Option 2 - Lanark Village Water & Sewer District	**Cost Estimate**
Interconnect Waterline 12.5 miles	$1,500,000 to $2,250,000
One New Well at 250 to 350 gpm *	$200,000
Summary	$1,700,000 to $2,450,000

* Note: A low cost alternative is to develop and rehabilitate the existing wells used by the old military base north of Lanark Village. This might be done for one-quarter or one-half of the cost of a new well.

A Shared Regional Water System is the best, most reasonable and reliable water source option that would also benefit the supplying communities and ratepayers without regard

to politics and parochial interest. Interconnected systems provide lower operation costs and are more stable, operable, and dependable than advanced treatment options.

AUTONOMY & REGULATORY ISSUES

All individual water systems would remain autonomous and separate, but have the benefit of sharing resources for regulatory capacity issues related to the Florida Department of Environmental Protection and Northwest Florida Water Management District. Home rule would be maintained for the best interests of each system.

A shared water system could be formed as a jointly owned system and operated by one of the entities or by a separate cooperative body. Regulatory issues of the shared system would be handled jointly. A shared regional water system would conform with the constraints of the Local Sources Initiative -- as Alligator Point has exhausted reasonable means to develop its local resources.

SUMMARY

A shared regional water supply is the best short-term and long-term solution to the water supply challenges in the area. A shared regional water supply would provide the greatest benefit for all water systems and ratepayers. It is a cooperative solution and does not rely on expensive advanced treatment facilities.

This FRWA study represents an unbiased review of the costs and benefits of water supply options for the decision makers of Alligator Point Water Resources District, Panacea Water System, Lanark Village W&S District, and the City of Sopchoppy as a Florida Rural Water Association membership service. FRWA is dedicated to assisting water and wastewater systems provide Floridians with an ample supply of high quality water, while protecting natural systems. The FRWA is non-profit, non-regulatory, and

not a governmental agency. Its primary purpose is to assist water and wastewater systems with every phase of water and wastewater operations.[3]

[3] Gary Williams & Sterling Carol.

5.0 Rates, Fees, and Capital Costs

5.1 Issues

Capital improvements are needed to facilitate safe, reliable water service throughout the County. These improvements are funded from various sources: Developer agreements, utility rates/connection fees, grants, low interest loans, bonds, ad valorem tax, State entitlement funds, and bank notes. This chapter addresses the cost of needed improvements and funding options.

5.2 Rates, Connection Fees and Impact Fees

The primary source of revenue to fund capital improvements should be the tap and connection fee, which also may be called impact fees, system charges, and other names all having the same meaning. This fee is based upon the cost of improvements needed to serve the customer and the cost of reserve capacity in the existing facilities which must be made available to the customer. Utility operations and maintenance and renewal and replacement costs are funded predominantly by rates and service charges. Rates and connection fees may be compiled into three service classifications:

- Residential
- Commercial
- Industrial

The purveyor can vary charges to each of these classes according to the actual cost to serve the customer. Some utilities

develop a senior citizen class to help those customers on a fixed income.

Utility rates represent the cost to operate, maintain, renew and replace the infrastructure serving the customer group. Rates should be reviewed every two years and adjustments made, if necessary.

In addition, the purveyor may choose to use a flat rate schedule or an inclining block rate schedule. The NWFWMD would encourage an inclining block rate schedule because this scheme encourages the conservation of water resources.

The City of Tallahassee provides a rate schedule that is applicable state wide, fair, and recommended by this evaluation. Tallahassee's water ordinance is included in the Appendix, and the team recommends purveyors review and become familiar with them.

The Florida Rural Water Association uses the following spreadsheet as a guideline for assisting utilities through the rate and connection fee review process:

System Community of _____ Date _____

Water and/or Wastewater Pumped (gallons)	

INCOME

Water and Wastewater Sales ($)	
Sales Tax (% deduct)	
Miscellaneous Income	
Interest	
Water and Wastewater Impact Fees	
Refunds	
Rents	
Other	
Total Annual Income	$ -

EXPENSES

Salaries	
Benefits	
Employment Tax	
Wastewater Testing	
Training	
Contracts	
Utilities	
Repair	
Supplies and Parts	
Equipment Replacement	
Office Expense	
Chemicals	
Refunds, Dues, Permits	
Legal Fees	
Insurance Cost and Bond	
Vehicle Expense	
Miscellaneous (Contract Operations and Sludg Hauling)	
Total Annual Expenses	$ -

OPERATING EXPENSE

Total Annual Operating Expenses	
Repair or Replacement Fund	
Other Expenditures	
Total Operating Expenses	$ -

DEBT PAYMENT

Total Debt Expenses (Principal and Interest)	
Amortization of bond costs	

Restricted Reserve	
Total Debt Payment and System Funded Reserve	$ -
TOTAL ANNUAL EXPENSE	$ -
SYSTEM SUMMARY	
Number of Connections	
Average Usage per User per Month (1000 gallons)	
Total Cost per 1000 gallons pumped	
Average Monthly Cost (per customer)	
Average income generated in one year per customer	

PRESENT RATE STRUCTURE

Income Generated	
Income Needed (Expense and Replacement)	

PROPOSED RATE STRUCTURE(S)

Debt Service

Debt payment per customer per month (principal+interest/total number of customers/12)+cost per thousand included in the minimum.	
Debt Expenses	
Total Number of Customers	
Debt payment per customer per month	

Projected Income:

Minimum usage cost + (cost per 1000 gallons x average usage per user per month) 12 months x number of users. Projected income does not reflect elasticity	
Minimum usage cost per customer per month	
Cost per Thousand Gallons	
Number of Users	
Total Projected Income	

(Projected income from rate increase + miscellaneous + interest income + refunds + other incomes)

5.3 Developer Agreement

All utility purveyors should evaluate each utility extension for its financial feasibility. It is recommended that all purveyors actively pursue developer agreements to maximize developer contributions to the construction or utilization of existing utility facilities necessary to serve the development.

Developer agreements are critical to successful expansion of utilities and the prudent management of growth. To assist the purveyors in the county, the Appendix includes an example developer agreement that may be considered when extending utility service to new development (for illustrative purposes only, naming the County as the purveyor).

5.4 Estimated Capital Costs

The following estimated construction costs are related to the recommendations to construct a phased water main. The water main system phasing is as follows:

Extend Water Pipe From	To	Phase	Year to Begin
St. James Bay	St. Joe Property	I	2010
Lanark Village	Carrabelle	II	2011
Hwy 98/319 int.	FSU Marine Lab	III	2014
FSU Marine Lab	Alligator Point	IV	2017
Carrabelle	Inland Resources	V	2025 - 2029

Project: **Franklin County Water Distribution Cost**
Scope: **Phase I. - Water Distribution System (St James Bay to Summercamp)**

Item No.	Description	Quantity	Unit	Unit Price	Category Total
Start Up Cost					
	Mobilization	2.00%	Project	$543,470	$10,869
	Insurance	1.25%	Project	$543,470	$6,793
	Bond	2.00%	Project	$543,470	$10,869
	Project Layout by RLS and As-built	1.50%	Project	$543,470	$8,152
	Soil and Material Testing	1.50%	Project	$543,470	$8,152
	Maintenance of Traffic	1.75%	Project	$543,470	$9,511
	Trench Safety Act	1.00%	Project	$543,470	$5,435
Distribution System					
	Erosion Control (silt fence & hay bales)	6900	LF	$4	$27,600
	Clearing and Grubbing	2	AC	$5,000	$10,000
	12" PVC Water Main Installed	6900	LF	$58	$400,200
	Fittings	1.4	Tons	$2,800	$3,920
	FH	4	EA	$3,000	$12,000
	Select Fill (within 3x3 trench)	2300	CY	$4	$9,200
	Residential Water Services	15	EA	$1,200	$18,000
	Commercial Water Service	4	EA	$4,800	$19,200
	Roadway Bore and Case (24")	80	LF	$200	$16,000
	Air Release Valves	1	EA	$3,500	$3,500
	Dewatering	2000	LF	$10	$20,000
	R/W Restoration	7700	SY	$1	$3,850
	Total Project				**$603,252**
Legal and Technical Services During Construction		10%	Project	$603,252	$60,325
Preconstruction Activity and Contingency		15%	Project	$603,252	$90,488
TOTAL COST					**$754,065**

Project: **Franklin County Water Distribution Cost**

Scope: **Phase II. - Water Distribution System (Lanark Village to Carrabelle)**

Item No.	Description	Quantity	Unit	Unit Price	Category Total
Start Up Cost					
	Mobilization	2.00%	Project	$1,141,456	$22,829
	Insurance	1.25%	Project	$1,141,456	$14,268
	Bond	2.00%	Project	$1,141,456	$22,829
	Project Layout by RLS and As-built	1.50%	Project	$1,141,456	$17,122
	Soil and Material Testing	1.50%	Project	$1,141,456	$17,122
	Maintenance of Traffic	1.75%	Project	$1,141,456	$19,975
	Trench Safety Act	1.00%	Project	$1,141,456	$11,415
Distribution Systems					
	Erosion Control (silt fence & hay bales)	5280	LF	$4	$21,120
	Clearing and Grubbing	4	AC	$5,000	$20,000
	12" PVC Water Main Installed	15400	LF	$58	$893,200
	Fittings	3.2	Tons	$2,800	$8,960
	FH	8	EA	$3,000	$24,000
	Select Fill (within 3x3 trench)	5130	CY	$4	$20,520
	Residential Water Services	22	EA	$1,200	$26,400
	Commercial Water Service	4	EA	$4,800	$19,200
	Bridge Crossing (attach to County bridge)	300	LF	$175	$52,500
	Air Release Valves	2	EA	$3,500	$7,000
	Dewatering	4000	LF	$10	$40,000
	R/W Restoration	17111	SY	$1	$8,556
	Total Project				**$1,267,016**
Legal and Technical Services During Construction		10%	Project	$1,267,016	$126,702
Preconstruction Activity and Contingency		15%	Project	$1,267,016	$190,052
TOTAL					**$1,583,770**

Project: **Franklin County Water Distribution Cost**

Scope: **Phase III. - Water Distribution System (Summercamp to FSU Lab)**

Item No.	Description	Quantity	Unit	Unit Price	Category Total
Start Up Cost					
	Mobilization	2.00%	Project	$287,919	$5,758
	Insurance	1.25%	Project	$287,919	$3,599
	Bond	2.00%	Project	$287,919	$5,758
	Project Layout by RLS and As-built	1.50%	Project	$287,919	$4,319
	Soil and Material Testing	1.50%	Project	$287,919	$4,319
	Maintenance of Traffic	1.75%	Project	$287,919	$5,039
	Trench Safety Act	1.00%	Project	$287,919	$2,879
Distribution System					
	Erosion Control (silt fence & hay bales)	850	LF	$4	$3,400
	Clearing and Grubbing	1	AC	$5,000	$5,000
	12" PVC Water Main Installed	3800	LF	$58	$220,400
	Fittings	0.8	Tons	$2,800	$2,240
	FH	2	EA	$3,000	$6,000
	Select Fill (within 3x3 trench)	1267	CY	$4	$5,068
	Residential Water Services	2	EA	$1,200	$2,400
	Commercial Water Service	1	EA	$4,800	$4,800
	Roadway Bore and Case (24")	150	LF	$200	$30,000
	Air Release Valves	1	EA	$3,500	$3,500
	Dewatering	1000	LF	$3	$3,000
	R/W Restoration	4222	SY	$1	$2,111
	Total Project				**$319,590**
Legal and Technical Services During Construction		10%	Project	$319,590	$31,959
Preconstruction Activity and Contingency		15%	Project	$319,590	$47,939
TOTAL					**$399,488**

Project: **Franklin County Water Distribution Cost**
Scope: **Phase IV. - Water Distribution System (FSU Lab to Alligator Point)**

Item No.	Description	Quantity	Unit	Unit Price	Category Total
Start Up Cost					
	Mobilization	2.00%	Project	$2,550,225	$51,004
	Insurance	1.25%	Project	$2,550,225	$31,878
	Bond	2.00%	Project	$2,550,225	$51,004
	Project Layout by RLS and As-built	1.50%	Project	$2,550,225	$38,253
	Soil and Material Testing	1.50%	Project	$2,550,225	$38,253
	Maintenance of Traffic	1.75%	Project	$2,550,225	$44,629
	Trench Safety Act	1.00%	Project	$2,550,225	$25,502
Distribution System					
	Erosion Control (silt fence & hay bales)	12000	LF	$4	$48,000
	Clearing and Grubbing	10	AC	$5,000	$50,000
	10" PVC Water Main Installed	44843	LF	$48	$2,152,464
	Fittings	6.7	Tons	$2,800	$18,760
	FH	21	EA	$3,000	$63,000
	Select Fill (within 3x3 trench)	14947	CY	$4	$59,788
	Residential Water Services	5	EA	$1,200	$6,000
	Commercial Water Service	1	EA	$4,800	$4,800
	Roadway Bore and Case (16")	60	LF	$200	$12,000
	Air Release Valves	3	EA	$3,500	$10,500
	Dewatering	10000	LF	$10	$100,000
	R/W Restoration	49825	SY	$1	$24,913
	Total Project				**$2,830,749**
Legal and Technical Services During Construction		10%	Project	$2,830,749	$283,075
Preconstruction Activity and Contingency		15%	Project	$2,830,749	$424,612
TOTAL					**$3,538,436**

Project: **Franklin County Water Distribution Cost**

Scope: **Phase III. - Water Distribution System (Carrabelle to Inland Water Resources)**

Item No.	Description	Quantity	Unit	Unit Price	Category Total
Start Up Cost					
	Mobilization	2.00%	Project	$4,579,001	$91,580
	Insurance	1.25%	Project	$4,579,001	$57,238
	Bond	2.00%	Project	$4,579,001	$91,580
	Project Layout by RLS and As-built	1.50%	Project	$4,579,001	$68,685
	Soil and Material Testing	1.50%	Project	$4,579,001	$68,685
	Maintenance of Traffic	1.75%	Project	$4,579,001	$80,133
	Trench Safety Act	1.00%	Project	$4,579,001	$45,790
Distribution System					
	Erosion Control (silt fence & hay bales)	12000	LF	$4	$48,000
	Clearing and Grubbing	3	AC	$5,000	$15,000
	12" PVC Water Main Installed	52000	LF	$58	$3,016,000
	Fittings	6.1	Tons	$2,800	$17,080
	FH	1	EA	$3,000	$3,000
	Select Fill (within 3x3 trench)	17333	CY	$4	$69,332
	Residential Water Services	1	EA	$1,200	$1,200
	Commercial Water Service	1	EA	$4,800	$4,800
	Roadway Bore and Case (24")	60	LF	$250	$15,000
	Air Release Valves	7	EA	$3,500	$24,500
	Dewatering	10000	LF	$10	$100,000
	R/W Restoration	57777	SY	$1	$28,889
Water Wells					
	0.8 MGD Water Production Well	2	EA	$500,000	$1,000,000
	Chlorination Equipment	2	EA	$10,000	$20,000
	Diesel Generator	1	EA	$45,000	$45,000
	Equipment Building	2	EA	$40,000	$80,000
	Yard Piping	300	LF	$100	$30,000
	Valves and Fittings	9	Tons	$2,800	$25,200
	Electrical Equipment	2	LS	$18,000	$36,000
	Total Project				**$5,082,691**
Legal and Technical Services During Construction		10%	Project	$8,929,181	$892,918
Preconstruction Activity and Contingency		15%	Project	$8,929,181	$1,339,377
TOTAL					**$7,314,986**

5.5 Schedule

The following schedule is recommended for budgeting purposes for the phased water main looping program.

Phase	Extend Water Pipe From	To	Cost in Millions	Year to Begin
I	St. James Bay	St. Joe Property	$74,065	2010
II	Lanark Village	Carrabelle	$1,583,770	2011
III	Hwy 98/319 int.	FSU Marine Lab	$399,488	2014
IV	FSU Marine Lab	Alligator Point	$3,538,436	2017
V	Carrabelle	Inland Resources	$6,499,313	2025 - 2029

Growth ***must*** fund expansion of the utility; therefore the above schedule may vary greatly with demand from development. Phased projects may need to be adjusted over time as each purveyor experiences requests for service.

6.0 Governance

6.1 Overview

This section outlines the opportunities available to the County to administer and facilitate utilities. The following options are not presented as recommendations, but rather are presented for the County's review and consideration.

The private utilities in Franklin County are currently regulated by the PSC. Under the current arrangement all expansions of existing private utilities and creation of new private utilities will be controlled by the PSC. The County may take back regulatory jurisdiction over the unincorporated areas of the county and this would put the County in a position to regulate the creation, growth, and rates of private and public utilities operating in the unincorporated County. The Board of County Commissioners would be taking over the role of regulator from the PSC. The County would have no role in regulating municipal utilities or special districts.

The provision of water service is more profitable than the provision of sewer service. The provision of sewer service requires greater investment of capital to construct and operate collection, transmission, treatment, and disposal facilities and, typically, the cost associated with operating a sewer system is many times the cost of construction and operation of companion/similar water service.

The costs of service are recovered through the rates charged by the utility. The objective is to provide the water/sewer service at an affordable rate to the customer. Due to the higher cost of the provision of sewer service, it is necessary to maximize all economies of scale and opportunities that exist to take advantage of existing wastewater infrastructure and planned projects.

The County would need to set up a regulatory structure designed to grant requests for authority to operate (franchises) in the County, regulate and approve the rates charged by utilities, and approve the expansion of service territories for existing regulated utilities. The Board of County Commissioners would serve as the decision making body for these matters. The Board could utilize utility consultants as special purpose staff to review rate and service applications, as well as provide recommendations to the Board. The cost of these consultants would be borne by the regulated community.

By taking back regulatory jurisdiction from the PSC the County would be taking the first step towards having an active role and control over the regional water/ wastewater/ stormwater solutions implemented in Franklin County over the next 20 years. Taking over regulatory jurisdiction would allow the County to participate in utility business in the County and to evaluate and acquire existing private utilities under the most favorable terms.

The types of ownership or utility participation include:

1. Direct County Ownership;
2. Direct Ownership with (or without) Intergovernmental Agreements;
3. Formation of a Governmental Utility Authority ("GUA");
4. Encourage and Regulate Private Investor-Owned Utilities;
5. Formation of Special Utility Districts.

6.2 Direct County Ownership

The systems located in Franklin County currently have water customers and wastewater customers with the exception of Alligator Point that serves water only. The County currently does not own any of the systems.

The main categories of cost incurred by a utility include debt service (interest and principal on bonds and loans), labor, power, and chemicals. County debt service (the cost of borrowing money) should be as low, or lower, than the cost of borrowing by an authority like a GUA. The cost of labor should be comparable for the County and a GUA. The same number of employees, at comparable pay scales, with comparable benefits, could be used by either the County or GUA. Power costs will be virtually identical for either system owner. Chemical costs should be similar, although at certain quantities, a bulk purchaser may gain a slight cost advantage.

In this case, a large percentage of the costs incurred in operating the aggregate Franklin County Systems are simply not of a type which lend themselves to cost reductions based on economies of scale, regardless of the GUA or County ownership.

The County can be divided into two distinct regions, east and west of the Apalachicola River. The Cities of Apalachicola, west of the river, and Carrabelle, east of the river, operate the largest water and wastewater facilities in each region. It is highly unlikely any physical interconnection will ever take place between the regions. Consequently, each should be viewed alone for purposes of determining what role the County can play in providing water and wastewater services in these regions.

Advantages associated with County ownership of a utility include: assurance that water concurrency requirements will be met; county control over rates; responsible/regional management of water supplies; management of growth in the unincorporated County service territories; expanded revenue base.

Disadvantages associated with County ownership include the added cost and expense in connection with administration and operation of the utility. Although these expenses are typically recovered through rates and charges associated with utility service, the County would be entering a new and strictly regulated arena.

6.3 Governmental Utility Authority

A Governmental Utility Authority ("GUA") is a public body and unit of local government created by special legislation, joining an existing GUA, or by Interlocal Agreement pursuant to Chapter 163, *Florida Statutes*, The Florida Interlocal Cooperation Act of 1969. In 1997 the Act was amended to allow at least two public agencies (including cities and counties) to enter into an interlocal agreement and create an authority to acquire, operate and manage public facilities including water, wastewater, alternative water supplies, and reuse facilities.

The Florida Governmental Utility Authority - FGUA was the first and remains the most prominent example of an entity created pursuant to the authorizing legislation. The FGUA has been evaluated by both State and participating local governments. These evaluations are useful in that they provide insight into what works and does not work under the GUA paradigm.

The FGUA was formed as of February 1, 1999 by Interlocal Agreement among Brevard, Lee, Polk, and Sarasota Counties for the purpose of acquiring water and wastewater facilities. The FGUA's first transaction was the acquisition of Florida Cities Water Company systems located in Brevard, Collier, Hillsborough, and Sarasota Counties, and the Poinciana system located in Osceola and Polk Counties. After the acquisition of the Florida Cities Water Company, Lee, Brevard, and Sarasota Counties each exercised their option to acquire the utility assets from the FGUA and Sarasota ended its membership in the Authority. Today the FGUA's members are Citrus, Hendry, Lee, Osceola, Pasco, and Polk counties, and the Town of Dundee. A Board of Directors governs the FGUA, and each board member is a county employee appointed by the respective member government. FGUA is a unit of government, and therefore, a nonprofit organization.

FGUA has no employees, it simply out-sources operations to private companies. Only a very small percentage of cities or counties in Florida out-source utility operations. Most local governments have found it is most cost-effective to directly hire staff for operations, management, customer service, billing, and collections.

The FGUA retains Government Services Group, Inc. ("GSG"), a private contractor, for the overall management of the FGUA. GSG has been managing all aspects of the FGUA's operations, including executive, administrative, financial, engineering and budget oversight, since its inception in April, 1999. Plant operations, customer service and billing are also provided by private contractors.

GSG was established as a for-profit Florida corporation on December 31, 1996. The law firm of Nabors, Giblin & Nickerson, P.A ("Nabors Firm"), acts as utility counsel and bond counsel for the FGUA. These two firms have an intimate relationship with the FGUA and one another:

- GSG is partially owned by two principals of the Nabors Firm and at one time the firm itself was part owner of GSG. Until 2003, the three named partners in the Nabors Firm held three of five seats on the GSG Board of Directors.
- The Nabors Firm successfully lobbied the 1997 Florida Legislature for the changes to Chapter 163, *Florida Statutes*, which made possible the creation of authorities like the FGUA.
- GSG and the Nabors Firm participated in the structuring of the Florida Cities/Avatar acquisition in 1998, prior to the formation of the FGUA in February, 1999.
- Both GSG and the Nabors Firm participated in the creation and formation of the FGUA.
- GSG has been the only FGUA System Manager since its creation in 1999.
- The Nabors Firm has been the only utility counsel and bond counsel for the FGUA since 1999.

GSG is compensated through the payment of a base fee paid monthly, plus expenses. The base fee is adjusted annually based upon system customer growth and changes in the Consumer Price Index. GSG receives a development review fee for each application for service to the FGUA. GSG is paid a negotiated lump sum fee or on an hourly basis (plus expenses) ranging from $40 an hour for secretarial or administrative support to $175 an hour for the system administrator for such other tasks as the FGUA may from time to time require, effective 2002-2003. Finally, GSG has historically charged a fee of three percent (3%) of the project cost for approved capital improvement projects.

The OPPAGA Report - In December of 2002 the Office of Program Policy Analysis and Governmental Accountability ("OPPAGA"), an Office of the Florida Legislature, prepared a Special Examination entitled *"Intergovernmental Authorities Provide Public Benefits, But They Lack Accountability"* (Report No. 02-67) (the "OPPAGA Report"). The purpose of the OPPAGA Report was identified as follows:

> The Joint Legislative Auditing Committee directed the Office of Program Policy Analysis and Government Accountability to conduct a policy review of the Florida Governmental Utility Authority (FGUA), an intergovernmental authority created for the purpose of acquiring, financing, and operating water utilities. The Legislature became concerned when FGUA began negotiating with Florida Water Services Corporation to purchase 156 water utilities in 25 counties. Subsequent to the committee's request, another intergovernmental authority, the Florida Water Services Authority was created, which entered into an agreement with Florida Water Services Corporation for the purchase of these utilities.

The OPPAGA Report concluded that existing Intergovernmental Authorities lack accountability. In an effort to make the FGUA more accountable, the Florida

Legislature in its 2004 Session modified the Florida Interlocal Cooperation Act. The two most significant changes were:

- The required approval of the host government prior to acquisition of a utility by an authority in its jurisdiction (as recommended); and,
- Placing a restriction against transfer of any revenues generated by a utility outside of the boundaries of the host government for the use or benefit of any other systems.

No legislative change was made to improve accountability to customers through PSC involvement in disputed rate cases or to improve accountability to local governments by requiring future transfers of utilities to counties or municipalities.

Advantages of a GUA (the focus is on a GUA created via Interlocal Agreement):

- The GUA provides a method through which a consortium of local governments may cooperatively acquire both small and large private utilities and offers the economic "bargaining power" and clout of a large-scale purchaser.
- The GUA provides a public ownership alternative in the event a local government desires to transfer ownership of its existing utility facilities for any reason including consolidation or rate stabilization or as a means to raise funds for required capital improvements.
- The GUA concept establishes a local system acquisition price structure for a private utility at the outset, thus avoiding unexpected future price increases when the local government's acquisition decision is advantageous.
- The cooperative GUA acquisition strategy does not encumber the financial resources of local government.
- Unless and until any option to acquire is exercised, the assets and debt associated with the utility remain solely the responsibility of the GUA, not local government.
- Future system improvements can be financed on a tax-exempt basis, thus minimizing the impact upon system users.

- As an independent special purpose local government, the GUA can be vested with the power to impose special assessments by its charter, thus eliminating the financial restraint that plagues privately operated systems.
- The GUA maintains and capitalizes upon economies of scale resulting from centralized management, operations, and planning.
- The GUA concept eliminates the constant threat of litigation between private utility operators and the local government.
- A shared legal agenda by all government members of the GUA diminishes costly redundancy in litigation and counsel.
- Elimination of Florida Public Service Commission regulation substantially reduces the expensive requirement of legal counsel and other consultants for regulatory proceedings.
- Reliability, efficiency and responsiveness in accounting, billing and customer service are promoted by centralized GUA management.

- Efficient, centralized construction management and planning offers broad-based water and wastewater expertise in required renovation, expansion and new construction projects.
- Centralized GUA management reduces confusion and a costly "learning curve" by using professional private management and operations contractors.
- Utility-related labor issues and personnel costs for local governments are eliminated because GUA supplies all personnel through contract with expert private providers.
- The GUA combines public ownership with private-sector efficiency by hiring a private contractor to provide day-to-day operations of GUA facilities and management.
- By out-sourcing these responsibilities customers save money since personnel, administrative, and other business costs are a fraction of the traditional costs.

- GUAs promote conservation by implementing new technologies that help use water more efficiently, investing in new technologies, and proven water conservation methods.

The strongest argument for creation of or participation in a GUA is the economy of scale provided by this type of entity. Consolidating water utilities can produce operating efficiencies resulting from economies of scale that can lead to lower prices, improved services, and increased regulatory compliance. The number of customers served by a water utility is an important determinant of how much people pay for water service. Larger utilities can spread their fixed costs across more customers, resulting in lower prices. Centralizing operational activities such as billing and customer service may result in improved levels of service because of the enhanced ability to obtain advanced technology and employ personnel with specific expertise. Compliance with regulatory requirements also may improve because the value of cost reductions associated with government ownership and consolidated operations can be used to finance required plant and equipment modifications. Intergovernmental authorities can be an effective means of consolidating the operations of small water utilities regardless of geographic proximity. (OPPAGA Report 02-67, p.5-6)

Disadvantages

- The legislation providing for the creation of a GUA is only 10 years old and the GUA concept is still evolving. As discussed above, the GUA concept on paper makes a great deal of sense; however, in practice the GUA concept has enjoyed mixed results.

- The Board of County Commissioners, County administration, and customers are unfamiliar with how a GUA operates.
- At least one other city, county, or special district must agree to be a member of the GUA.
- Power over the GUA will be shared with another entity.
- Lack of direct control over utility operations.
- Lack of accountability.

6.4 Private Investor-Owned Utilities

The County may opt to regulate investor-owned utilities operating within its borders. The County would need to adopt a resolution rescinding the PSC's jurisdiction over private utilities operating within Franklin County.

The steps required under this option are:

1. Pass a resolution rescinding the Florida Public Service Commission's jurisdiction over investor-owned utilities and then assume such authority;
2. Passage of ordinances, policies and rules concerning utility regulation of rates, service areas, customer service, etc.; and,
3. Establish regulatory apparatus and responsibilities. The Board could function as regulator directly or a citizen regulatory board could be appointed.

Advantages

- The County would have additional authority to plan for, manage, and direct growth and development within its borders.

- The County would regulate the rates which it residents must pay for utility service.
- The health and safety of the citizens and the environment would be protected via greater governmental involvement.
- Issues of concern to local residents would be taken into account during the decision-making process as locals would be in charge of the utility regulations versus staff at the PSC (in Tallahassee) making decisions affecting the lives of Franklin County residents.
- The County would have the ability to standardize utility facilities within its borders by implementing design standards that must be followed by private utilities.
- County regulation would insure that the rates and charges assessed by the private utilities compensate those utilities only for investments made and costs incurred to operate the facilities actually serving customers residing in Franklin County.
- The County would insure strict compliance by the private utilities with Franklin County growth management plans.
- Water concurrency plans will be followed because the County would have the authority to regulate where lines are placed.

Disadvantages

- Local officials, who might not have expertise in the area, would be involved in rate setting procedures.
- The additional expense associated with the regulation of private utilities.
- The County would have to carefully follow legal and procedural requirements in connection with rate setting proceedings.
- The potential for the County to become involved with protracted, and expensive, litigation.

6.5 Formation of Special Utility Districts

The County may create a special district(s) via ordinance. This would allow the County to maintain control over the utility as the Board of County Commissioners could sit as the governing board of the special district, while at the same time allowing those with expertise in managing a utility to handle operations.

The creation of an independent or dependent special district avoids the need to create a utility department within the existing County structure. The County could create an independent or dependent special district to own and operate a utility.
If the Board of County Commissioners wishes to place control of utility operations in the hands of persons with expertise that the Board may not currently possess, the Board may establish an independent special district. A significant difference between the dependent and independent special district mechanisms would be the retention of rate-setting and utility management authority by either the Board (dependent district) or the new district board of directors (independent special district). The only additional steps required under this option for indirect utility ownership (as opposed to direct County ownership) is the resolution process necessary to create a special district and the determination whether such district should be dependent or independent.

Historically, there have been three (3) special districts providing water and waste water service to County residents. The track record of these districts has been mixed and currently the trend is away from creation of this type of entity to attend to the water and wastewater service needs of County residents. The Lanark District recently sold/transferred all of its water and wastewater utility assets to the City of Carrabelle. This transfer effectively dissolved the Lanark District. The Eastpoint District currently operates water and wastewater facilities providing service to the residents of Eastpoint and extends service as far east as the new consolidated school facility and west to the Apalachicola River. Finally, the Alligator Point District provides water service to its

customers. The Alligator Point District has significant problems in securing a reliable source for raw water that threatens its ongoing operations.

6.6 Regional Utility Alternatives

The State Encourages a Regional Utility Framework

The State of Florida is actively promoting the move toward regional utility solutions to the water and wastewater supply issues facing the state. The need for regionalization is especially encouraged in coastal areas of the state.

History has shown that the raw water supplies utilized by coastal communities can be adversely impacted by proximity to the coast and explosion in demand. Salt water intrusion in coastal supply wells has the potential to render them unfit for potable raw water supply and can result in damage to the aquifer. Consequently, the state water management districts encourage coastal water utilities to relocate water supply wells as far inland as feasible to minimize or eliminate these impacts.

Areas in the Panhandle such as Walton County and the City of Destin tackled this issue during the mid 90s. The water supply wells for the two not-for-profit utilities located on the Moreno Point peninsula serving both Walton County and City of Destin residents (South Walton Utilities and Destin Water Users) were adversely impacted by salt water intrusion. The Northwest Florida Water Management District (NWFWMD) encouraged these utilities to look inland for a reliable source of water through the consumptive use permitting process. This source was identified as the Rock Hill well field located on Highway 331 north of the City of Freeport, in the unincorporated County. The utilities formed a water resource partnership (WRP, Inc.) to pursue the responsible development of the resource.

Although WRP's consumptive use permit ("CUP") application for the Rock Hill well field was proposed for approval by the NWFWMD, the issuance of the CUP to WRP was

legally challenged by Walton County, the City of Freeport, and a local investor owned utility (Regional Utilities, Inc.). The parties engaged in contentious litigation for over a year, with each party seeking to protect the water resources and customer base it viewed as its own. Ultimately, the parties have resolved the issue of water supply in the region by entering into water supply agreements which are mutually beneficial. In effect, this region has developed a regional supply plan forged through litigation among competing interests.

Ideally, a regional solution does not require litigation. Fortunately for Franklin County, there are only two private utility providers in the County with limited service territories. The major existing providers are municipal or special districts. The entities will be encouraged to work together by the NWFWMD to create a regional water and wastewater supply plan. The regional equivalent of the Rock Hill well field has been identified in the Tate's Hell National Forest, approximately 6 miles north of the City of Carrabelle. The entity that obtains the CUP associated with these production wells will play a pivotal role in regional water supply.

Regionalization is Occurring, Participate or Not?

The regionalization of water and wastewater service in the County is already occurring. Although not a coordinated effort, certain entities in the County are building momentum towards a regional approach to utility service in Franklin County.

The situation west of the Apalachicola River is simple. The City of Apalachicola is the only large scale provider of centralized water and sewer service in this region. Consequently, in the

absence of intense growth in the unincorporated County beyond the ability of the City to serve, the regionalization issue west of the river is moot.

The situation east of the Apalachicola River is more complex. A number of public and private entities operate in this region and are currently capable of providing service to residents in the unincorporated areas of the County. However, one entity is aggressively expanding both its infrastructure and utility service territory and is rapidly emerging as the most likely candidate to be the regional provider east of the Apalachicola River.

The State has provide approximately $30 million dollars in low interest loan and grant monies to the City of Carrabelle for the construction of an advanced wastewater treatment ("AWT") plant. The AWT plant completed by Carrabelle in 2004 is ideally positioned to be a regional provider of wastewater service between the Eastpoint District and the St. James Island Utility. The City of Carrabelle typically extends water service along with wastewater service. The City's service territory extends well beyond its corporate limits. Currently, the extent of the City of Carrabelle utility service territory is limited only by the Eastpoint District to the west and the St. James Island Utility Company ("St. James") to the east.

St. James has not become a serious provider of water or wastewater service in its certificated territory. It is unclear whether or not St. James as an investor owned utility has a part to play in a regional utility framework. The territory served by St. James is a logical extension of the area currently served by the City of Carrabelle. Similarly, should the County wish to enter the utility business directly, St. James serves as a ready made vehicle. The Alligator Point District to the east of St. James has a need for a reliable supply of potable water due to impacts to its existing supply sources. This demand ensures that any decision regarding St. James by the County, City or St. James itself must be made in the short term. The entity in control of St. James and its service territory has a significant role to play in the regionalization of Franklin County.

The geographic constraints on Water Management Services, Inc. ("WMSI"), which provides water service exclusively to St. George Island, precludes it from being a regional player in the water supply framework. However, its geographically compact nature, client base (existing and projected), recently upgraded infrastructure, and relatively sophisticated operation make it an attractive candidate for direct County ownership under option 3.2.

Similarly, the service territory of the Eastpoint District is limited by the Apalachicola River and the City of Carrabelle. Eastpoint could provide a low cost entry point for the County into the Utility business under option 3.2 as well. Unfortunately, because of geographic constraints, the role of the Eastpoint District in a regional supply plan would be comparatively small. Nonetheless, benefits could be achieved through consolidation of the Eastpoint and WMSI operations and facilities.

6.7 Shared Resources

The Evaluation Team identified the potential for the Cities and Special Districts to join with the County in the joint purchase of goods and services in an effort to achieve cost savings and efficiencies from such a sharing of resources.

During the study process, there was interest shown by Franklin County, East Point, Carrabelle, St. Joe Company and Alligator Point to participate in some form of regional or cooperative effort.

A coordinated county-wide approach to the provision of water and wastewater service should include an agreement between the various utility providers to render assistance to each other in the event of an emergency situation or to achieve maximum economic efficiency whenever feasible.

This Report provides a draft of a sample emergency interconnect agreement which could be entered into by utility providers to provide for the construction of interconnects between their respective facilities.

At times, a utility provider may experience other types of emergency situations which the provider alone cannot address expeditiously using only the employees and equipment at its disposal. A mutual aid agreement between the utility providers in the County pursuant to which they each would render assistance to the other in times of emergency is prudent. Also attached to the Report is a draft of the "Mutual Aid Agreement for Water/Wastewater" which has been prepared and approved by an organization known as FLAWARN.

7.0 Funding Sources

7.1 Department of Community Affairs

Small Cities Community Development Block Grant (CDBG) Program

About $11 million is available annually for water and sewer projects which primarily benefit low and moderate income persons. Projects which will provide new water or sewer service receive more goal points than other types of projects, such as replacement of lines. However, there are other scoring considerations, such as whether non-CDBG funds will be used in the project.

About $9 million in additional funds are also available annually for Economic Development for water and wastewater projects required to serve a specific job-creating entity. At least 51% percent of the jobs created must be for low and moderate income persons and be the types of jobs for which such persons qualify.

Maximum grant amounts range from $600,000 to $750,000 depending on local governments' low and moderate income population. For Economic Development projects, cost per job cannot exceed $35,000.[1]

7.2 Department of Environmental Protection

The Clean Water State Revolving Fund (SRF) provides low interest loans to eligible applicants for planning, designing, and constructing water pollution control activities and facilities. Eligible projects include wastewater management facilities, reclaimed wastewater reuse facilities, stormwater management facilities, widely accepted pollution control practices sometimes called "best management practices" associated with agricultural stormwater runoff pollution control activities, and Pierce fields associated with contamination of ground or surface waters and estuary protection activities and

[1] The contact person for these ED grants is Millie Schroeder, (850)487-3644, millie.schroeder@dca.state.fl.us , http://www.dca.state.fl.us.

facilities. Local governments including municipalities, counties, authorities, special districts, and agencies thereof, are eligible for loans to control wastewater and stormwater pollution. Non-governmental parties (any entities that can repay a loan), are eligible for loans to control stormwater pollution related to agricultural operations.

Interest rates vary from 20 percent of the market rate for a financially disadvantaged community to 80 percent of the market rate for a more affluent community. Most communities qualify for rates below 60 percent of the market rate. Loans are repaid over 20 years or the useful life of the project, whichever is less. The loan repayment period can be extended to a maximum of 30 years or for the useful life of the project for projects that benefit a small community with a financial hardship. Pre-construction loans and loans for the costs associated with pollution control related to agricultural runoff have shorter loan repayment periods, generally 10 years.

The process can be initiated upon the request of a project sponsor at any time. However, the availability of funds is the greatest at the beginning of the State fiscal year. A hearing is held quarterly to allocate funds. Potential SRF program participants are encouraged to contact the Bureau of Water Facilities Funding for further information.[2]

The Small Community Wastewater Construction Grants Program provides funding for planning, designing and construction of wastewater facilities. Municipalities with a population of 7,500 or less and per capita income below the 2000 Census state average are eligible to apply.[3]

The Drinking Water State Revolving Fund (SRF) Program provides low-interest loans to Eligible Entities for planning, designing, and constructing public water facilities. Federal and State appropriations have funded the SRF. It is a "revolving" fund because loan repayments are used to make additional loans. By federal law the SRF operates in

[2] For more information, please contact: Bob Holmden, Florida Department of Environmental Protection.
[3] Funds are limited. The next opportunity for funding is not expected until FY 2010. For more information, please contact Bob Holmden, (850) 245-8358, bob.holmden@dep.state.fl.us, http://www.dep.state.fl.us/water/wff/cwsrf

perpetuity. The Department solicits project information each year from January 1 to February 15. The information is used to establish the project priority list for the following annual cycle. Funds are made available for Construction Loans of $75,000 or more to public water systems. Construction Grants are available to financially disadvantaged communities with public health risk projects. Pre-Construction Loans and Grants are available to small community water systems with public health risk problems. The loan terms include a 20-year (30 year for financially disadvantaged communities) amortization and low-interest rates. Small community assistance is available for communities with populations less than 10,000. Each year, 15 percent of the funds are reserved exclusively for the use of small communities. In addition, small communities may qualify for loans from the unreserved 85 percent of the funds.[4]

7.3 US Department of Commerce

Economic Development Administration (EDA) Public Works and Development Facilities Program

The Public Works Program empowers distressed communities in economic decline to revitalize, expand, and upgrade their physical infrastructure to attract new industry, encourage business expansion, diversify local economies, and generate or retain long-term private sector jobs and investment.

In many cases, public works projects are used to upgrade or expand an area's economic infrastructure to support the next generation of industry or commerce. Whenever possible, this program seeks to redevelop existing facilities and industrial/commercial locations. EDA encourages such redevelopment projects because they promote sustainable economic development by taking advantage of readily available infrastructure and markets.

[4] For more information, please contact Craig Diltz, (850) 245-8358, craig.diltz@dep.state.fl.us, http://www.dep.state.fl.us/water/wff/dwsrf

The Public Works and Economic Development Program supports locally-developed projects that promote long-term economic self-sufficiency and global competitiveness. Examples of past infrastructure investments include water and sewer facilities, industrial access roads, rail spurs, port improvements, skill-training facilities, technology-related infrastructure, as well as the demolition, renovation, and construction of publicly owned facilities.[5]

7.4 Enterprise Florida

The Rural Infrastructure Fund is a resource available to rural communities in Florida to facilitate the creation, capital investment, and the strengthening and diversification of rural economies by promoting tourism, trade, and economic development.

This program is intended to provide additional financial assistance that will enable rural communities to better access other infrastructure funding programs, including those offered by the US Department of Agriculture- Rural Development (USDA-RD) and the US Department of Commerce-Economic Development Administration (EDA). Successful applicants will be those who achieve the maximum level of funds by ensuring that all possible sources of local, federal and other funding have been utilized and ensuring that every effort has been made to minimize administrative expenses.

Rural Community Development Revolving Loan Program

The Rural Community Development Revolving Loan Program provides financial assistance to local governments in the form of either a loan or loan guaranty. The purpose of the program is to provide financial assistance for a specific project that will lead to the creation of new jobs and increase the economic vitality and diversification of Florida's rural counties.

The maximum amount of financial assistance available for the program is $560,000.

[5] For more information, please contact Lola B. Smith, (404) 730-3032, LSmith2@eda.doc.gov, http://www.doc.gov/eda

There is no minimum amount. The program is not designed to be the sole source of financing for any project. Successful program applicants will be those which achieve the maximum level of leverage of these funds by ensuring that every effort is made to utilize local, federal and other state funding resources in addition to this program. No application or administrative fees will be charged for the use of this program.[6]

7.5 Florida Rural Water Association

The Florida Rural Water Association Loan Program was created to assist communities in obtaining competitive interim financing for construction projects.

In an effort to assist borrowers across the State with the overwhelming burden of financing capital construction projects, The Florida Rural Water Association has created an interim construction loan program to provide construction funding for communities which have received a permanent loan commitment from the United States Department of Agriculture-Rural Development (USDA-RD) or permanent loan commitment from DEP SRF and needs construction funding.

The program structure enables communities' access to competitive fixed rate loan funds at a very low cost of borrowing. Loan proceeds are utilized for the construction period only and are paid off with USDA-RD/DEP-SRF funds when the project is complete or funded.[7]

[6] For more information, please contact Bridget Merrill, (850) 922-8655, bmerrill@eflorida.com, http://www.eflorida.com
[7] For more information, please contact Gary Williams, (850) 668-2746, Gary.Williams@frwa.net, http://www.frwa.net

7.6 USDA Rural Development (RD)

Rural Development is a mission area of the United States Department of Agriculture that provides Guaranteed and Direct Loans and Grants through the Rural Utilities Service (RUS) program for water, wastewater, and solid waste projects.

Rural communities and small incorporated towns/cities with populations of 10,000 or less based on the latest decennial Census of the United States are eligible to apply. To qualify, applicants must be unable to obtain the financing from other sources and/or their own resources at reasonable rates and terms. Public bodies and nonprofit corporations can be eligible applicants.

Funds can be used for construction, land acquisition, legal fees, engineering fees, capitalized interest, equipment, initial operation and maintenance costs, project contingencies and other costs that are determined by Rural Development to be necessary for the completion of the project. Projects must be primarily for the benefit of rural users.

Direct Loans - Market Rate - Available to applicants where Median Household Income (MHI) for their service area is greater than the non-metropolitan MHI of Florida ($28,470).

Intermediate Rate - Available to applicants whose MHI is not more than the non-metropolitan MHI* ($28,470) of Florida and who otherwise do not qualify for the poverty rate.

Poverty Rate - Available to applicants whose MHI is below the latest established nationwide poverty level MHI of Florida (80 percent of $28,470 = $22,776) and there are existing health/sanitation conditions that would be alleviated with the proposed project so as to comply with regulatory agencies' established standards.

Guaranteed Loans - As negotiated by private lender and applicant and determined by RUS to be reasonable. This may be a fixed or variable rate.

Rates - Rates are subject to change quarterly. The intermediate rate is set halfway between the poverty and market rates. Rates are fixed and the maximum rate is established at the time the loan is approved. If rates drop by the time the loan is closed, the applicant is afforded the opportunity to receive the lower rate.

Repayment Terms - Up to 40 years for both direct and guaranteed loans based on the applicant's authority and the useful life expectancy of the system.

Maximum Amounts - Direct loans may be obtained for 100 percent of eligible project costs subject to adequate security, ability to repay, applicant's authority to borrow and availability of funds.

7.7 Legislative Appropriations

The County and Cities are familiar with the Community Budget Issue Request (CBIR) program, having used this program successfully in the past to secure legislative appropriations. The form changes periodically and current state representatives will have the latest version, however, an example CBIR request form is provided in the Appendix.

8.0 Implementation

8.1 Public Participation

Before any project can be fully implemented, it is important to remember that citizen participation throughout the project is crucial. Communities should be aware that citizen participation requirements may vary and are generally dependent on the source of the funding sought (SRF, CDBG, RD, etc). Contacting the project funding source is the best way to determine if citizen participation requirements have been fulfilled prior to loan application submittal.

Local citizen participation hearings (meetings) are required to be advertised with the local newspaper. The published notification should appear 5 - 14 days prior to the scheduled meeting date. Minutes from the meeting should be kept and a copy of the published advertisement will need to be included with application documents.

Items to address in the citizen participation meetings:

- Explain the project – identify the need for the improvements, estimated costs associated with it, and any other viable alternatives.
- Impact on local citizens – identify any rate, impact or user fees that may be increased or adjusted as a result of the project.
- Impact on the local environment – identify environmental improvements or adverse effects that can be expected as a result of the proposed project
- Citizen Involvement – invite local citizens to evaluate alternatives for the project, obtain their input and reaction to each alternative presented, invite citizens to provide additional alternatives if needed.

8.2 Utility Review

Suggested Guidelines to Help Franklin County and Purveyors Plan a Successful Water/Wastewater Project

1. Franklin County or the Purveyor should coordinate with the Florida DEP during planning and design of their project as soon as possible. Don't keep the Florida DEP in the dark, use them as a resource who can 'watch your back' during the project. The more a community keeps Florida DEP district and state staff involved in the beginning and throughout the project, the fewer questions the Florida DEP will have during plan approval.

2. Franklin County or the Purveyor should designate a local official or local resource person who can review cost estimates, engineering plans, etc. Engineers are human and make mistakes, but if the community designates a person to watch over the project, they may be able to catch mistakes sooner rather than later.

3. Franklin County or the Purveyor should use available resources in Florida who are knowledgeable of financing sources for water and wastewater projects. These resources include the Rural Community Assistance Program (RCAP), the Florida DEP Division of State Revolving Funds (FDEP SRF), Florida Rural Water Association (FRWA), Department of Economic Development (ED), Department of Community Affairs, Community Development Block Grant (CDBG), etc.

4. Franklin County or the Purveyor should strive to keep focused on the project they originally began. Don't get in the mind set of trying to do too many activities (projects) at once. Focus on the most important project and complete it before beginning a new

one. This includes defining a project service area and sticking to it. You must know exactly what you want to construct before you can construct it.

5. Franklin County or the Purveyor should make sure their engineer is estimating costs based on the year the project will be bid. This will alleviate bids coming in over the allowable 10% and keep communities from obtaining additional financing and raising rates at the last minute.

6. Franklin County or the Purveyor should not be afraid to take a stand against their engineering firm. If your engineer is not listening to you, not meeting deadlines, or changing fees or project costs too often, discuss this with them and get the problem resolved. This is your project, not the engineer's project, and you will be responsible for it after it is completed, so you are the driving force. Question your engineer, get your questions answered, and don't hesitate to make changes as required.

7. Franklin County or the Purveyor need to keep the public involved. Hold regular public meetings, send out newsletters that include project information, have open houses and provide information as it is developed. Present alternatives to them, obtain their input and reactions, listen to what they say, and always remember to ask the question 'how will this impact the community'. Don't surprise the public. Keep them involved from the beginning and fewer problems will occur down the road. If the public feels as though they were involved in the decision making, they will accept the solution much more readily.

8. Franklin County or the Purveyor should maintain a project schedule with tasks and completion dates clearly listed. Water and wastewater projects are extremely complicated undertakings and it is very difficult to remember each task and deadline

without keeping it on a tracking system. Keep a project schedule, update it regularly, and make sure all project participants are meeting the schedule.

9. Franklin County or the Purveyor should be open to new ideas and alternative methods. Don't think that there is only one way to solve a problem, be flexible, and explore all your options. Contact the Florida DEP, RCAP, the Florida Rural Water Association (FRWA), and other communities in Florida who were presented with the same problem that you have. Find out how they solved the problem, how the system is operating now, and don't hesitate to schedule a tour for your community officials to visit facilities in other communities.

10. Franklin County or the Purveyor should keep in mind that they will be responsible for operating and maintaining the project they are planning to complete. Therefore, work with your engineer to include adequate operation, maintenance, and replacement costs in the project budget. You want the infrastructure you are constructing to last at least for its useful life, and proper operation, maintenance, and repair is essential in assuring that it will do so.

8.3 Financial Planning

The following steps are recommended to plan for funding of capital improvements identified in this Report:

1. The County and the participating Utility Purveyors are actively pursuing support from legislators through Community Budget Issue Requests (CBIRs).

2. Pursue funding in conjunction with the Florida Department of Environmental Protection, State Revolving Loan Fund, Drinking Water and Clean Water Programs (includes wastewater and stormwater projects). These are low interest loan programs that will fund preconstruction and construction activities. The loan interest is determined by a needs assessment and would be in the range of 2.5% to 3.5% over 20 years.
3. Evaluate the grant / loan option provided through the Department of Agriculture, Rural Development. This program would be administered through the local Mariana Office. Depending on several factors, the grant element may be in the range of 50%. The remaining loan element will be in the range of 2.5% to 5.0%, with up to a 40 year term.
4. Include Florida Rural Water Association for interim financing of this project. Once a funding program is approved, the FRWA is a viable source for interim financing at a very low interest rate.
5. Contact the Department of Community Affairs for consideration of a Community Development Block Grant (CDBG). Strict guidelines apply to use of these funds and are related to the demographics of the service area.
6. Bonds and a Bank loan may be considered and would be in the 2.8% to 7% range at this time.

8.4 Implementation

Suggested Guidelines to Help Franklin County and Purveyors Secure an Engineer

1. Know what your project is before you begin. The County and Purveyors should develop a detailed project summary that specifically states what the problem is that needs to be solved, a narrative describing existing facilities, and ideas the County has for

solving the problem (i.e. potential sites where infrastructure could be located, type of infrastructure preferred, etc.).

2. Establish a qualified engineer selection committee which will review qualifications, conduct interviews, and recommend a firm to the County Commission or appropriate City or Member Owned Utilities governing body. Use existing County resource people in your area. These could include the sanitary engineer for your county, local community and economic development staff, a contractor or person who understands water and/or wastewater projects that resides in your County, the County Manager, and/or members of the County Commission who may have experience with water and/or wastewater projects.

3. Develop a unique request for qualifications (RFQ) that challenges engineering firms to do some work in order to meet the requirements of the RFQ. Don't just use the same RFQ sample that engineers are used to or you will get the same information they send to all clients. An example might be to challenge engineers to provide a one page summary of recommendations as part of their qualifications on how to solve the problem for which you are seeking engineering services.

4. Request in the RFQ that engineering firms provide to you a list of all water/wastewater projects they have worked on in the past 5 years. This approach is more effective than asking for three references because you will have a list of all their projects, not just the projects that were successful.

5. Insist that engineers meet with County officials or the Purveyor and conduct a preliminary tour of the project site before submitting their qualifications.

6. Develop a list of interview questions that focus on the type of project you need to complete. Don't just use interview questions that engineers hear at each interview they attend. Be creative and ask questions that will challenge engineers to think "on their feet". Franklin County or the Purveyor must remember that at no time during the RFQ or interview process are they allowed to ask about the cost of services. The Consultants Competitive Negotiation Act (CCNA) states that costs for professional services cannot be discussed until firms have been evaluated and ranked using qualifications-based selection criteria.[1]

7. Don't try to interview too many firms and make sure you provide adequate time for the interviews. Generally, 3-5 firms should be the maximum number of firms to interview. Conduct the interviews consecutively in one day and allow enough time to successfully determine if each firm has what you are looking for. Interviews should be no less than 30 minutes each and should be scheduled to allow for a brief presentation by each firm followed by questions from the County.

8. Make it clear to engineering firms that you want the project manager that would be working on your project to attend the interview. It is very important that communities get a feel for what the project manager is like, his/her demeanor, does he/she listen to you during the interview. The most important mental question during the interview should be "can we work as a team with this person (the project manager)?"

9. Advertise the RFQ as much as possible. Send the RFQ to the *Tallahassee Democrat* in addition to a local newspaper. Use F.W. Dodge to advertise RFQs. Talk with representatives from surrounding utilities and ask them who they have worked with in the past and send the RFQ to those engineering firms. Send the RFQ to firms that have

[1] http://www.fleng.org/FICE/ficeccna.cfm

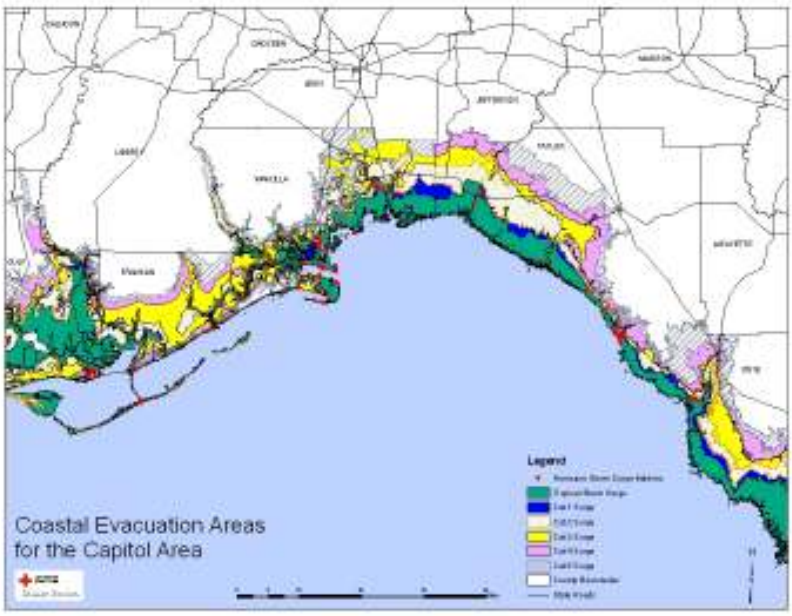
visited with your local officials in the past. Get a list of engineers from the Florida Engineering Society in Tallahassee, and select firms near your area to send them an RFQ.[2]

10. Utility purveyors should remember that they are not required to enter into a contract with the firm that is ranked the highest after the interviews are conducted. If the County or one of the Cities cannot reach an agreement with the highest ranked firm with regard to the cost of their services, they need to remember that they can negotiate with the second ranked firm, then the third ranked firm until the County is able to negotiate a fair price with a firm. If the County cannot reach an agreement with any of the firms interviewed, they must begin the entire process over.

[2] http://www.fleng.org/FICE/ficefirms.cfm

9.0 Emergency Management

Every community faces many different types of hazards that can threaten the safety of its population, damage property, destroy the quality of life, or severely disrupt the economy. The Disaster Mitigation Act of 2000 (DMA2K) was enacted to reinforce the importance of mitigation planning while highlighting planning for disasters before they occur. DMA2K focuses on providing funding to state and local levels, which are available to local and municipal organizations as well as private non-profits (PNP). Franklin County is located along the coast where flooding and wind damage from hurricanes is most severe. Hazard mitigation planning is the coordination of actions taken to reduce injuries, death, economic loss, and degradation of resources due to natural and man-made hazard events. Mitigation actions will have long-term and cumulative benefits over time. Actions can include strengthening a structure against damage from a hazard, elevating a structure above a flood hazard, relocating a structure away from a hazard, or completely removing the structure to avoid future damage. However, initiatives should also be included that reduce the effects of hazards on proposed and new buildings and infrastructure.



Hazards cannot entirely be eliminated, but it is possible to determine which hazards are threats, where the hazards are most severe, and identify actions that can be taken to reduce the severity of the hazard. Water resources and the continuance of service

should be of critical concern to the community. Once all hazard mitigation actions have been identified, proper priorities must be established concerning each proposed project's impact on life safety, quality of life, cost effectiveness, and value to the overall community including but, not limited to, value as compared to other similar projects especially during times of limited funding availability. Identifying all possible projects up front is paramount to secure funding. There are multiple ways to fund mitigation projects both through state and federal programs. The following are some of the funding opportunities available to state and local governments.

The Emergency Management Preparedness and Assistance Trust Fund (EMPA) consist of two competitive grant programs: the Emergency Management Competitive Grant Fund and the Municipal Competitive Grant Fund. Both programs are designed to implement projects that will further state and local emergency management objectives. The EMPA fund provides competitive grants to state or regional agencies, local governments, and private non-profit organizations. The Municipal Competitive Grant Fund provides competitive grants to municipalities that are legally constituted, have an authorized, established, and maintained emergency management program and have signed a mutual aid agreement.

Hazard Mitigation Grant Program (HMGP) provides funds to States, territories, Indian Tribal governments, and communities to significantly reduce or permanently eliminate future risk to lives and property from natural hazards. Eligible HMGP funded projects must be in compliance with priorities established in State, Tribal or Local Mitigation Strategies and be submitted on behalf of the Franklin County Local Mitigation Strategy (LMS) Working Group.

The Florida Coastal Management Grants Program allows local governments within Florida's 35 coastal counties to apply for approximately $1,200,000 for project sub-grants for planning small-scale capital improvements, acquisition, and technical assistance.

The Florida Communities Trust Program (FCT) provides approximately $30 million annually to local governments. Florida Communities Trust is a state land acquisition grant program that provides funding to assist local governments in protecting resources identified in the comprehensive plan. FCT can help implement the local government's conservation, recreation, open space, and coastal management elements. There is financial and technical assistance to acquire lands that conserve natural resources, correct undesirable development patterns, restore degraded natural areas, enhance resource values, restore deteriorated urban water fronts, reserve land for later purchase, use innovative land acquisition methods, and provide public access to surface waters.

Flood Mitigation Assistance Program (FMA) is a state managed federal program for local mitigation efforts. Mitigation activities grants awarded include the following project types: floodplain management demolition or relocation of structures subject to imminent collapse or subsidence as a result of erosion or flooding; elevation, relocation, demolition, or flood proofing of structures (including public structures) located in areas having special flood hazards or other areas of flood risk; acquisition of properties (including public properties) located in areas having special flood hazards or other area of flood risk and properties substantially damaged by flood, for public use; provision of technical assistance by the State to communities and individuals to conduct eligible mitigation activities; minor physical mitigation efforts that do not duplicate the flood prevention activities of other federal agencies. Any property owner with flood insurance and at least two flood insurance claims of $1,000 or more and who wishes to elevate his or her house above the level of a 100-year flood, is eligible to apply through the local

government to participate in this program. About $1-3 million dollars are available annually for this program throughout the state. Successful project proposals can be funded so that 75% of the cost of elevating the damaged structure reimbursed through this program. The local government must submit the project application and administer the FMAP funds to reimburse expenses incurred by property owner or contractor for the elevation.

The Pre-Disaster Mitigation (PDM) program provides funds to states, territories, Indian Tribal governments and communities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event. Grants are available for projects such as, but not limited to, voluntary acquisition of real property (i.e. Structures and land, where necessary) for open space conversion; relocation of public or private structures; structural and non-structural retrofitting; construction of safe rooms; vegetation management for natural dune restoration and wildfire.

The Repetitive Flood Claims (RFC) program provides funds to reduce or eliminate the long-term risk of flood damage to structures insured under the National Flood Insurance Program (NFIP) that have had one or more claim payment(s) for flood damages. Allowable projects include: acquisition, structure demolition, or structure relocation with the property deed restricted for open space uses in perpetuity.

10.0 Stormwater Runoff

According to the National Resource Defense Council, drinking water supplies, shellfishing waters and bathing beaches are fouled by uncontrolled pollution when rainwater washes over city streets, parking lots, and suburban lawns and picks up toxic chemicals, disease-causing organisms, and dirt and trash. This problem is called stormwater pollution.

Two hundred years of unregulated, unmanaged urban stormwater have contributed to many severe public health problems and expensive natural resource losses in the United States. Left unregulated and uncontrolled, urban stormwater:

- pollutes drinking water sources, filling in reservoirs with clogging silt and oxygen-robbing nutrients and contributing to drinking water emergencies;
- fills in navigable waterways with contaminated sediment, leaving us with increased dredging and spoil disposal costs;
- closes or shrinks lucrative rockfish, shad, flounder, crab, oyster, and other commercial fisheries due to chemical contamination, oxygen starvation, and the resulting loss of habitat;
- fouls beaches and other recreational waters, causing losses in revenues from declines in boating, fishing, duck hunting and coastal tourism;
- scours smaller stream channels and dumps huge gravel and silt loads, ruining fish and amphibian habitat;
- obliterates small streams, springs and wetlands during development (these natural waterbodies are sources of clean ground and surface water and serve as habitat for aquatic life); and
- damages homes and businesses during the flash floods common where stormwater is left uncontrolled

Each of these problems carries heavy costs: increased spending on health care, higher insurance and drinking water rates, declining stocks of commercial fish, and loss of coastal tourism revenues. Americans are spending millions on these symptoms of stormwater pollution instead of trying to control the root cause.[1]

[1] http://www.nrdc.org/water/pollution/fstorm.asp

Stormwater Contamination in Franklin County

A 2007 study in Florida indicates that groundwater pollution from the nitrogen in fertilizers (residential and commercial) that runoff into nearby water bodies when it rains exceeds 70%.[2] The Northwest Florida Water Management District has determined that nitrogen in stormwater runoff is a major pollutant for the waters in Apalachicola Bay.[3] This nitrogen affects the marine life and can have a serious negative effect on the county's commercial and recreational fishing, and thus also damage the County's economy and tourism. Because the percentage of contamination from nitrogen fertilizers is so large, it is imperative that the County consider mitigating stormwater pollution.

Preventing fertilizer runoff from reaching the Bay can be done cost-effectively. The most sensible mitigation strategy is to educate citizens about the harmful effects of nitrogen on the water and on the County's economy. There are also simple measures that individuals can take to make a meaningful difference in the amount of pollution Franklin County waters must absorb. For example, the EPA funds educational campaigns that encourage individuals to "Think About Personal Pollution (TAPP)" and make suggestions for reducing home nitrogen use as well as directions for planting "rain gardens" that slow the flow of runoff to sensitive waters so they can be more effectively filtered by the soil. The County can spearhead these educational campaigns inexpensively and with the help of grant funds.

The County has already begun to filter stormwater runoff through "baffle boxes" subsidized by the United States Environmental Protection Agency. This effort should be expanded with additional boxes to reduce nitrogen runoff contamination further.

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[2] Gerald Briggs, Eberhard Roeder, "Nitrogen Impact of Onsite Sewage Treatment and Disposal Systems in the Wekiva Study Area," June 30, 2007, http://www.doh.state.fl.us/Environment/ostds/wekiva/TaskFinal/2006WekivaFinal.pdf

[3] Grady Marchman, PE, MLT (ASCP), "An Analysis of Stormwater Inputs to the Apalachicola Bay," 2000, http://www.nwfwmd.state.fl.us/pubs/apal_stormwater_inputs/apalachicola_stormwater_inputs.htm

Federal emergency funds are available to communities with a Local Mitigation Strategy in place. Franklin County should consider stormwater management challenges in storm situations when drafting the County's Local Mitigation Strategy to access these federal funds.

10.1 Research

Many people are drawn to Franklin County because of its unique natural resources. The Northwest Florida Water Management District has investigated the water quality in the Bay in part because the bay and surrounding waters are recognized as a resource of state, federal, and international importance. The Bay has been designated an Outstanding Florida Water, a State Aquatic Preserve, and an International Biosphere Reserve. It includes the Apalachicola Bay National Estuarine Research Reserve and is adjacent to St. Vincent National Wildlife Refuge. These resources, however, are threatened by pollution linked to increased development, and, according to the NWFWMD study on water quality, significant sources of pollution (most notably nitrogen loads) are from stormwater runoff and from septic systems.[4] The Florida Department of Environmental Protection has estimated that in one sensitive water area, nitrogen loads from stormwater runoff represent approximately 70% of the nitrogen pollution in the groundwater. Both pollution from stormwater and from septic effluent increase with increased development, but both can be mitigated through system improvements.

10.2 Effect of Pollution on the Bay Economy

Employing the suggestions outlined in this report may also improve the region's economy. Stormwater pollution increases as development increases, and these increased levels of typical stormwater contaminants such as turbidity, total suspended

[4] Ibid.

solids, coliforms, nutrients, and some metals including copper, zinc, and lead pose a hazard to both area residents and to the economic life of the Bay area.[5]

Nonpoint source pollution is the contamination that comes from many places (that is, not from a single point) – pavement, cars, yards, and air pollution, for example. When it rains, these contaminants are swept into the water without being filtered or cleaned. It should be the county's paramount concern because, compared with other sources of pollutants to water, stormwater is the most significant source of water pollution.

The NWFWMD found that

> There has been a near total lack of sampling data on the quality of stormwater discharges from municipal areas into Apalachicola Bay. As discussed in the Surface Water Improvement and Management (SWIM) Program Franklin County Nonpoint Source Assessment (1993), nonpoint source pollution from urban areas represents one of the most serious threats to water quality in Apalachicola Bay. This threat is increasing as development interest in the area grows. The degradation of water quality as has occurred in many estuary systems, may severely impact the unique and highly productive environmental resources associated with Apalachicola Bay. One of the greatest concerns is a potential for adverse human health effects that are directly related to the consumption of contaminated seafood and linked to nonpoint sources. This could adversely impact the region's economy, which is directly dependent upon those resources.

Additionally the NWFWMD determined that

> Nonpoint source pollution from urban areas represents a serious threat to water quality in Apalachicola Bay. In particular, the impacts of urban areas, and discharges from municipal stormwater drainage systems have the potential to be far more devastating than the more distant or regional sources of pollution

[5] Marchman, p. 1. The sample sites in the City of Apalachicola yielded the following results: southeast corner of Battery Park (S526), base flow sampling indicated significant bacteriological contamination, as total and fecal coliforms and fecal streptococci were all consistently elevated. Magnesium and zinc levels were also elevated. Apalachicola, northwest corner of Avenue I and 4th Street (S527), showed the highest concentrations of contaminants in the base flow samples of any of the sites surveyed. Dissolved oxygen was consistently impaired, averaging less than 2 mg/l. Specific conductance was markedly elevated, which may indicate the site's tidal influence. Total and fecal coliform colony counts were consistently elevated, as were fecal streptococci colony counts. Nutrients in the base flow, including ammonia-nitrogen, total Kjendahl nitrogen, nitrate+nitrite, phosphorus and orthophosphate, were also markedly elevated. This combination of results could be indicative of sewage contamination, through cross connections or illicit connections.

> originating upstream in the riverine watershed. This threat is increasing, as the area is becoming the focus of growing development interests. The degradation of water quality, as has occurred in many Gulf Coast estuaries, would severely degrade the unique and highly productive natural or estuarine resources associated with Apalachicola Bay and adversely impact the region's economy, which is directly dependent upon the bay's productivity.
>
> The bay produces approximately 90% of the state's oyster harvest and a significant portion of the state's blue crab and penaeid shrimp harvests. It also provides important nursery areas for finfish, crabs, and shrimp. Additionally, because most of these species spend only a portion of their lives in the bay and because the vast majority of commercially important species are estuarine dependent, the productivity of the bay may be reflected in dock yields throughout the Gulf of Mexico. The situation is further complicated by the existence of the Apalachicola-Chattahoochee-Flint River Compact, which authorizes the States of Florida, Alabama, and Georgia to negotiate a water allocation formula for the river basin. The resulting allocation formula will reduce freshwater flows to the bay, which will in turn affect such factors as bay salinity and nutrient levels.
>
> An unprecedented effort by a combination of State, federal, and local agencies is now underway to protect and restore the resources of Apalachicola Bay.[6]

The Water Management District calls for a "source control strategy for the urbanized communities" citing "The City of Apalachicola's storm drainage network, [which is] much like other coastal communities in northwest Florida, and is considered antiquated and inadequate, unable to meet current stormwater management and treatment standards." Furthermore, "according to the City [of Apalachicola]'s comprehensive plan, the existing system is characterized by deterioration, undersized piping, sedimentation from eroding ditches, overgrown conveyances, direct infiltration into the wastewater sewer collection system (which has resulted in secondary wastewater overflow during sustained storms), and a number of direct, untreated outfalls into the estuary. Results of such conditions include the potential for degraded water quality and increased flood hazard potential."[7]

10.3 Mitigation of Stormwater Pollution

[6] Ibid., p. 2
[7] Ibid.

Fortunately, mitigating the hazards of stormwater runoff to the Bay is relatively inexpensive to address. Each dollar invested in addressing water pollution from fertilizers and other nitrogen sources will repay the County with long term cost savings by reducing future contamination clean-up costs and protecting the County's critical waters. Establishing a **stormwater utility** can be accomplished with a board vote and will allow the County to plan for future stormwater management needs. A coordinated campaign of **education** may be the County's most effective and least expensive tool in protecting the environment and the economy, encouraging individuals to take responsibility for personal pollution. Mitigating pollution by slowing the flow of stormwater and contaminants to the Bay and Gulf with EPA-sponsored **baffle boxes** with further improve water quality. And planning for future stormwater challenges through designing a **Local Mitigation Strategy** which specifically addresses the unique water management needs of Franklin County during storm events will help the County and residents recover more quickly and may entitle the County to federal disaster funds.

To date, Franklin County already has an adopted ordinance which outlines the requirements for managing stormwater in the Critical Shoreline District:

Stormwater Management

(a) Each development in the Critical Shoreline District shall include a stormwater management system prepared in accordance with S.466 Franklin County Zoning Code which assures that the post-development peak discharge rate, volume and pollution load of stormwater is no greater than that which existed before development. Minimum lot clearing, swale/berm systems, small depressional retention areas and the integration of a stormwater system into a site's landscaping are recommended as practical and inexpensive means of managing stormwater.

(b) Single family residential structures shall minimize stormwater impacts by using site suitable best management practices referenced in the CSD Development Manual which maximize the infiltration of stormwater and minimize the off-site discharge of stormwater.

(c) For all land uses other than single family residences, the applicant shall provide, as part of the development permit application, a site plan pursuant to 301.04, Franklin County Zoning Ordinance that includes a detailed stormwater management plan for treating the first 1.5 inches of run-off. Whenever soil percolation on a site will allow the infiltration of the required stormwater treatment volume within 72 hours, the stormwater system shall consist of off-line retention practices. To the greatest extent possible, it is recommended that retention areas be integrated into a site's open space and landscaping areas so as to reduce operation and maintenance needs. Prior to receiving a development permit, the applicant shall apply for and receive a stormwater permit from the Department of Environmental Regulation pursuant to Chapter 17-25, F.A.C.,that provides for the adequate treatment of 1.5 inches of run-off.[8]

To bring pollution levels down dramatically and work proactively to improve the Bay's economy, the County should consider additional measures to protect the County's water, including:

Stormwater Mitigation Strategies

• **establishing a stormwater utility**
  ○ **assessing costs associated with stormwater management services**
  ○ **assessing appropriate fees for the provision of this service**

• **creating a citizen advisory committee, responsible to the Board of county Commissioners, to design an educational campaign to limit individual contributions to nitrogen pollution**
• **pursuing grant funds for and installation of additional filtering baffle boxes**
• **acknowledging the link between runoff pollution during periods of flooding and federal funds available for flooded roads (FDOT)**   ○ **include stormwater issues in the Local Mitigation Strategies to access federal funds during declared disasters**
• **seeking grant funding to reduce the County's expenses in managing the stormwater pollution and education**

[8] Franklin County Ordinance 89-9, An Ordinance Amending Ordinance 87-1, which is an ordinance regulating the Critical Shoreline District of Franklin County, and Adopting Maps of the Pollution Sensitive Segments Thereof, http://www.franklincountyflorida.com/documents/planning_building/ord.89-8criticalshoreline.pdf

10.3.1 Establishing a Stormwater Utility

The Federal Government already mandates that municipalities address stormwater runoff in their National Discharge Pollution Elimination System, Phase II. This program requires permits, secured through FDEP, for certain municipal, industrial, and construction activities. The costs associated with compliance in this federal mandate are more frequently paid for by fees collected through a stormwater utility.[9]

The NDPES requires municipalities to do the following things:

- Educate people about stormwater run-off
- Involve citizens in the solutions to run-off pollution
- Identify illegal pollutants (for example, dumping)
- Control construction site run-off
- Mitigate run-off from city building and activities

All of these mandates cost money (although they are far less costly than cleaning up pollutants and addressing the health ramifications they cause). Stormwater Utility fees are the most reasonable source of funds to implement these federal objectives.

A stormwater utility can be created with a vote from the Board of County Commissioners at no expense to the County. The benefits of establishing this utility are many: The County can plan for stormwater management activities and proactively seek solutions to protect groundwater, drinking water, and the Bay, as well as fund necessary stormwater management activities.

According to Janice Kaspersen, in her article, "The Stormwater Utility: Will it Work in Your Community?"

[9] http://www.dep.state.fl.us/water/stormwater/npdes/

> A stormwater utility is a special assessment district set up to generate funding specifically for stormwater management. Users within the district pay a stormwater fee, and the revenue thus generated directly supports maintenance and upgrade of existing storm drain systems; development of drainage plans, flood control measures, and water-quality programs; administrative costs; and sometimes construction of major capital improvements. Unlike a stormwater program that draws on the general tax fund or uses property taxes for revenue, the people who benefit are the only ones who pay.

This method of stormwater management is now widely accepted as an effective tool in a comprehensive approach to environmental protection, economic development, and public health.

> The first few stormwater utilities were started in the early 1970s. A 1994 Environmental Protection Agency report estimated the US total at just over 100. Today there are more than that in the state of Florida alone, and more than 400 nationwide, with high concentrations in Washington, Oregon, and California. By one estimate, the country will have 2,500 stormwater utilities within the next 10 years.[10]

One important motivation toward developing stormwater utilities has been the United States Environmental Protection Agency's (USEPA's) National Pollutant Discharge Elimination System (NPDES) Stormwater Phase II Rule which requires small municipalities to develop and implement stormwater management programs (SWMPs) for their municipal separate storm sewer systems (MS4s).

President of the Florida Association of Stormwater Utilities (FASU) and city engineer for Venice, Florida, Pat Collins, remarked

> What I like about the stormwater utility process is that it's more responsible government. Most communities have set it up so that all the money collected for the stormwater utility goes into an enterprise fund, and those dollars can only be spent on stormwater improvements for which they were collected. If you're funding your program out of a general fund or property taxes, promises can be made that you're going to get this capital improvement or you're going to

[10] Kaspersen, "The Stormwater Utility: Will it Work in Your Community?" in *Stormwater: The Journal for Surface Water Quality Professionals,* http://www.forester.net/sw_0011_utility.html

> purchase a street sweeper for your stormwater program, but the county administrator or city manager might decide to build that new post office or that police department or something that's more popular. Stormwater can get pushed to the side.[11]

Legal Authority

In the section entitled, "*Legal Authority to Establish Stormwater Utilities*," The Florida Stormwater Association Handbook, *Establishing a Stormwater Utility,* points out that

> Florida cities and counties have inherent home rule authority and specific statutory authority to adopt stormwater regulations and to create stormwater utility systems. They may fund the construction and operation of stormwater utilities through general taxation, or through imposition of user fees and special assessments.
>
> A user fee is lawful if it is imposed in proportion to the capital and operational costs attributable to the customer's impact on the entire stormwater utility. The allocation of such costs may be based on the quantity of stormwater treated, its contribution to total pollutant loading of the utility, or a combination of the two. A special assessment is lawful if it is imposed in proportion to the special benefit or value conferred on real property by the availability of the utility.[12]

To begin a stormwater utility, two ordinances are needed: the first to establish the utility itself, and the second to set the rate structure. The City of Largo, Florida has recently adopted a Stormwater Utility Ordinance which is included in the appendix for reference.

Assessing Costs & Fees

[11] Ibid.

[12] http://www.florida-stormwater.org/manual/chapter2/summary.html and http://www.florida-stormwater.org/manual/chapter2/2-2.html, Among the particular powers of both charter and noncharter counties conferred by the Legislature in FLA. STAT., § 125.01 is the power to "establish and administer programs of ... flood and ... erosion control... and drainage" (subsection (j)); the power to create municipal service taxing or benefit units in all or part of the unincorporated area "within which may be provided ... drainage... and other essential facilities and municipal services from funds derived from service charges, special assessments or taxes" (subsection q); and the power to levy and collect taxes and special assessments "both for county purposes and for providing of municipal services" (subsection (r)). FLA. STAT., § 125.0101 (2) authorizes counties to provide, by agreement, drainage or other services to any municipality or special district, but forbids the imposition of special assessments or service charges within the municipality or district. This statute is cumulative to other authorizations, and does not limit them.

When water is polluted, we all pay in one way or another. The stormwater utility concept provides a degree of fairness lacking in tax-based systems. Property taxes are based on assessed property value, which does not necessarily correlate to the amount of runoff a parcel of land contributes to the overall stormwater problem. Under a utility, tax-exempt properties that generate runoff also must contribute their share to the stormwater fund.

Most stormwater utilities base fees at least in part on the percentage of impervious cover of the parcels of developed land within the utility. For maximum fairness, some measure the square footage of each parcel (using county property maps, for example) and calculate the percentage of pervious and impervious surface individually for each. One widely used technique, the equivalent hydraulic acres (EHA) method, multiplies the pervious and impervious areas of each parcel of land - developed or undeveloped - by an appropriate runoff factor, adds the results, and multiplies the total by a water-quality factor to determine the fee based on the parcel's relative runoff contribution. Many different fee-determining methods exist, however, and often fees apply only to developed land. For simplicity, many utilities employ such methods only for commercial properties and simply charge a flat rate for residential properties.

10.3.2 Education

The most cost-effective solution to reducing nitrogen pollution is reducing its application in the form of residential and commercial fertilizers. An educational campaign should focus on informing residents that fertilizers represent a vast majority of water pollution from nitrates and this pollution may be linked to their livelihoods. Individuals are directly responsible for purchasing and applying these fertilizers that runoff into the Bay and Gulf. Cleaning up pollution is far more costly than avoiding it, and they should be introduced to less chemical-intensive lawn care strategies such as leaving lawn clippings on grass in lieu of commercially produced fertilizers.

One federally funded grant program emphasizes the importance of "rain gardens" which are groupings of plants in areas prone to flooding or erosion. The plants serve to slow the water's flow, helping filter contaminants naturally while holding down the soil. EPA grants subsidize these gardens by reimbursing homeowners for the cost of materials after they are installed. The program also pays for educators and educational materials to help homeowners site the gardens appropriately.

Local community groups may also be of great assistance in conveying the message that the health of Franklin County's water and economy can be dramatically improved with some simple conservation measures including disposing of waste properly and avoiding dumping or pouring any items into storm drains. Some localities have placed placards on curbs that indicate where the water discharges. Some communities have held "storm drain stenciling events" – where the destination of the water is clearly marked on the drain – and this informs everyone that these drains are only for rain – and not trash or chemicals.

The county should establish a citizen advisory board to create a strategy of education that might include public outreach efforts like buying billboard advertising during the peak periods of fertilizer use to draw attention to the serious harmful effects of its use.

10.3.3 Baffle Boxes

NWFWMD has funded eight baffle boxes to mitigate pollution in the Bay caused by stormwater runoff.[13] The United States Environmental Protection Agency has published a "fact sheet," included below, explaining the essential mechanics of baffle boxes for stormwater management.

[13] See the EPA factsheet for more about baffle boxes: http://www.epa.gov/owm/mtb/baffle_boxes.pdf

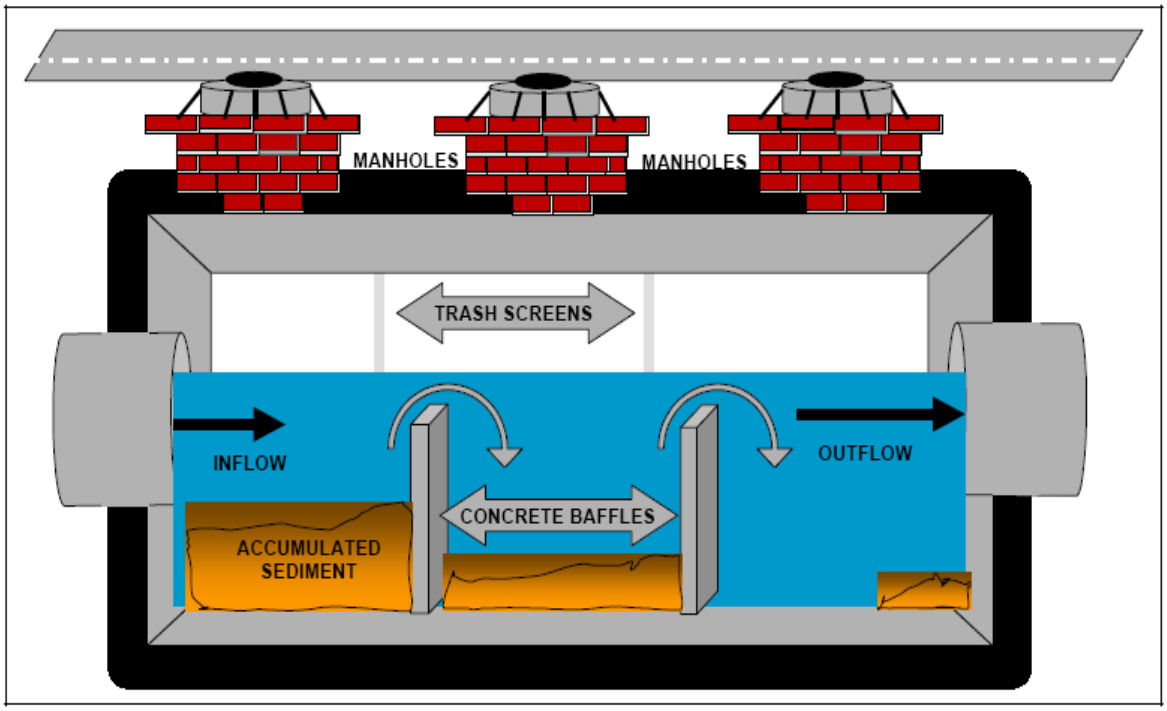
United States Environmental Protection Agency
Office of Water Washington, D.C.
EPA 832-F-01-004 September 2001

Storm Water Technology Fact Sheet
Baffle Boxes

DESCRIPTION

Baffle boxes are concrete or fiberglass structures containing a series of sediment settling chambers separated by baffles. The primary function of baffle boxes is to remove sediment, suspended particles, and associated pollutants from storm water. Baffle boxes may also contain trash screens or skimmers to capture larger materials, trash, and floatables. Baffle boxes are located either in-line or at the end of storm pipes. Figure 1 shows a typical baffle box design.

The use of baffle boxes for pollutant removal is based on the concept of slowing the flow velocity through the box, thereby allowing solids and associated pollutants to settle to the bottom of the box. Storm water enters the box and begins to fill the first chamber. As water encounters the baffles, flow velocity decreases, allowing particles with a settling velocity greater than the horizontal flow velocity to settle to the bottom of the box. In addition to decreasing flow velocities, the baffles impede particle movement. As suspended solids strike the baffles they begin to settle. Larger particles usually settle out first and accumulate in the first chambers while smaller particles usually settle out in subsequent chambers.



Source: Modified from Suntree Technologies, Inc., 2000.

FIGURE 1 SCHEMATIC OF A BAFFLE BOX

10.3.4 Local Mitigation Strategies

As Florida's population has rapidly grown between the 1960s and now, so has the shape of the State's landscape. Rapid urbanization has manifested itself in the form of increased impervious surface areas, fostering more severe stormwater runoff. Stormwater management and planning has not kept pace with the State's population growth and rapid development; indeed, Florida's system of levees and water control structures, notably in south Florida, were constructed in the 1950s and designed for half the population it now serves.

As the State of Florida approaches the new millennium, stormwater management policies and practices are undergoing a transformation to reflect not only trends in the design and construction of stormwater systems, but also trends in growth management and sustainable development.

The first step in this process is to prepare a list of a community's existing and proposed mitigation initiatives and the policies, ordinances, and regulations that guide these efforts. Agencies of local government, as well as the public, should be included in reviewing, revising, and adding to this list so that it accurately reflects a community's vision for hazard mitigation. The list will guide local government funding decisions on an ongoing basis and will function as a road map after a disaster. The projects included on this list will be justified based on a community's vulnerability assessment, and should be supported by guiding principles, or existing policies and ordinances.

Two North Florida projects can serve as examples for Franklin County about the possibilities for developing a comprehensive Local Mitigation strategy which considers the problem of stormwater pollution as an integral part. The City of Tallahassee implemented a stormwater fee. The fee is based on the total amount of a property's impervious surface and has been used to prepare a stormwater program and fund a wide range of drainage improvements. Since the devastating 1994 hurricane season, which included Tropical Storm Alberto and other flooding events, several neighborhoods on the south and west sides of town have experienced repeated flooding. However, since no federal monies were immediately available to address this problem, the city used a

combination of Community Development Block Grant (CDBG) funds and some of its stormwater fee proceeds to acquire the repetitively damaged structures and remove them.

Further east, the St. Johns River Water Management District, the State of Florida, the US Army Corps of Engineers, the Lake County Water Authority, county and local officials, and the public cooperatively developed a river basin restoration plan. This restoration effort for the Upper Ocklawaha River and its floodplains was ultimately successful, as it simultaneously addressed the goals of flood control, restoration, fisheries improvement, recreation, wetland enhancement, and habitat improvement. The restoration approach included purchasing property in the floodplain, public outreach and education programs, marsh reconstruction (to store flood waters and filter out pollutants), filling private internal drainage ditches, and restoring the natural flow of the river. This approach is called "multi-objective management and incorporates multiple group goals. By virtue of the fact that this management approach involves many groups, multiple funding sources are often available to accomplish the management objectives.[14]

Drainage projects and stormwater management are important mitigation tools, particularly in the most rapidly growing areas of the State. Since 1992, approximately $6.8 million in Hazard Mitigation Grant Program funds have been used to support drainage and stormwater management programs. The Florida Division of Emergency Management also administers the Pre-Disaster Mitigation (PDM) program, a statewide competitive grant, created to assist State and local governments with the implementation of cost-effective hazard mitigation activities prior to disasters. The intent of this program is to reduce overall risk to people and property, while also minimizing the cost of disaster recovery.[15]

[14] For additional examples of successful Florida Mitigation Programs, see http://www.floridadisaster.org/brm/LMS/LMS%20Mitigation%20Initiatives.htm
[15] See also: http://www.floridadisaster.org/Mitigation/PreDisaster/index.htm

10.4 Additional Funding: Grants & Loans

The NWFWMD has conducted studies and has installed baffle boxes to begin the process of improving the system of stormwater management in Franklin County. Additionally, grant funds may be available through the Office of Tourism, Trade and Economic Development (OTTED) which is interested in effecting sensitive waste disposal in the Bay area while promoting Economic Development there. The Florida Rural Water Association funds water management projects and the State Revolving Fund Clean Water Program (chapter 62-503), administered through FDEP. The Clean Water Program began issuing grants in 1957, and since then has administered Federal allotments over $2 billion. According to FDEP, when the grant applicants' local share is taken into account, over $3.2 billion was spent on the construction of wastewater management facilities. The Clean Water Program has now become a low-interest loan program for stormwater management facilities. Stormwater improvement is often funded through Florida Forever Capital Improvement Grants, administered through the NWFWMD,[16] and the Water Management district recently awarded a $1 million grant to Gulf Breeze to establish a stormwater utility.[17]

The federal government has been an important source of funds for stormwater pollution mitigation programs. The EPA offers an Environmental Education Grant which funds programs that focus on educating children,[18] as well as grants for individual sites which are abandoned or underutilized contaminated sites through their Brownsfield program.[19] The Community Action for a Renewed Environment grant (CARE) funds communities interested in building a community consensus-based strategy to assess and

[16] http://www.nwfwmd.state.fl.us/rmd/swim/fla_forever_grants/fla_forever_grants.htm
[17] http://www.gulfbreezenews.com/news/2006/0622/News/023.html

[18] http://www.epa.gov/enviroed/grants.html
[19] http://www.epa.gov/brownfields/pilot.htm This program also funds job training with the goal of placing unemployed or underemployed persons in full time positions in sustainable environmental employment.

address comprehensive environmental risk with the goal of reducing exposures to toxic pollutants through collaborative action at the local level.[20] Programs like Think About Personal Pollution (TAPP) are funded by the EPA, but administered locally to promote rain gardens and other community clean water strategies. TAPP funds pay not only for the programming but may also be available as individual grants to homeowners who install their own rain gardens.

Because pollutants from stormwater pose such a significant threat to important waterbodies nationwide, there are many concerted programs – state and federal – designed to establish stormwater systems in communities near critical waters threatened by stormwater pollution.

[20] http://www.epa.gov/care/basic.htm

11.0 Septic Improvements for St. George Island

Water from septic system effluent is one of the largest artificial groundwater recharge sources in the state of Florida, and groundwater provides 93% of the state's drinking water.

There is general agreement that wastewater must be handled sensitively and in line with the best technology available near sensitive bodies of water, including St. George Island. Domestic wastewater contains several kinds of pollutants; the major pollutant is the pathogens (disease-causing microorganisms) like the bacteria and viruses that cause dysentery, hepatitis, and typhoid fever. Onsite sewage facilities such as septic tanks and holding tanks also release nitrogen into the environment by discharging through a drainfield into the ground. Microbial activity consumes the nitrogen and other contaminants in the wastewater. However, in certain areas the soil is unsuitable to handle some or all of the wastewater, and as a result, the wastewater with the contaminants enters the aquifers. These contaminants accumulate and eventually end up in drinking water and in the Bay or Gulf.

The following table shows the main types of pollutants of concern from septic systems.

Pollutant	Reason for Concern
Pathogens	Microorganisms such as parasites, bacteria, and viruses can cause communicable diseases through direct/indirect body contact or ingestion of contaminated water or shellfish. Pathogens pose a particular threat when partially treated sewage pools on ground surfaces or migrates to recreational waters. Transport distances for some pathogens in surface or ground waters can be significant.
Nitrogen	Nitrogen is a plant nutrient that can contribute to eutrophication and depletion of dissolved oxygen in surface waters, especially in estuaries and coastal embayments. Excessive nitrate-nitrogen in drinking water can cause methemoglobinemia in infants and complications for pregnant women. Livestock also can suffer health impacts from drinking water high in nitrate.
Phosphorus	Phosphrus is a plant nutrient that can contribute to eutrophication of inland fresh waters and some marine waters and eventually deplete dissolved oxygen.

Household chemicals	Chlorine, ammonia, and other cleaning compounds in high volumes may disrupt or disable biological activity in the septic tank. Waters from hobby or craft activities (paints, solvents, etc.) and disposal of non-organic liquid wastes (old furniture polish, pesticides/herbicides, etc) in onsite/cluster systems can have similar impacts.
Pharmaceuticals and endocrine disruptors	Disposal of large quantities of outdated antibiotics and other medicinal products in septic tank-based systems can impair or halt biological treatment processes. Disposal of products containing chemicals that disrupt endocrine system functions (e.g. regulation of metabolism, blood sugar, reproduction, embryonic development) in on-site systems might result in leaching of these chemicals into ground water and surface waters and impair water quality and/or aquatic organisms, in some cases. Research on this issue, including toxicology, transport, and fate of potential endocrine disruptors, is ongoing (USEPA, 1998a; North Carolina Department Environment and Natural Resources, no date).

Source: EPA[1]

Traditional septic systems do a good job at minimizing pathogens in the environment, but do significantly less well at controlling nitrogen and phosphorus. This is worrisome to counties with sensitive waterways for many of the same reasons outlined in the discussion on stormwater run-off: these nutrients, when present in toxic amounts, pose a threat to the county's citizens, environment, and economic development.[2]

The main concern for septic pollution on St. George Island, then, is how well on-site water treatment systems can process Nitrogen that may become toxic and pollute sensitive waters. A traditional septic system servicing a 2-3 bedroom home contributes about twenty pounds of nitrogen a year (the equivalent of four bags of 10-10-10 lawn fertilizer), and this nitrogen enters the groundwater in a higher relative percentage than does nitrogen from yard fertilizer application.[3] The sandy, porous soil conditions on St.

[1] The Center for Economic Forecasting and Analysis at Florida State University recently published a report on the consequences of the Wakulla County Ordinance to require performance Based Septic Systems county-wide. http://www.cefa.fsu.edu/uploaded%20current%20projects/Phase%202%20report%20January%202007.pdf

[2] Recent studies on load levels of nitrogen show that while stormwater contamination represents approximately 70% of the total nitrogen contribution, burning of fossil fuels and septic effluent are also contributors which can be limited by proactive governance.

[3] Florida Department of Health, Bureau of Onsite Sewage Programs, http://www.doh.state.fl.us/environment/ostds/ Wekiva Springs Area Study results, 2006. The percentage inputs of fertilizer and septic effluent were calculated at 75% and 6% respectively, but the percentage load (that is, the amount of nitrogen that infiltrates the groundwater) was calculated at 54%

George Island mean that the soil has a less de-nitrifying effect on the nitrogen input, and much of the nitrogen in the effluent becomes part of the nitrogen load (the amount of nitrogen entering the groundwater). This "performance boundary" – that is, how the soil type on the island takes up the tank's pollutants – cannot be changed with reasonable cost. But the "performance boundary" that can be improved is the mechanical system that treats the wastewater on the island. The load of toxins to the groundwater becomes significantly compromised when traditional septic systems fail or function poorly.

11.1 Research

To help protect against any potentially hazardous consequence to Franklin County's waters as a result of a septic system failure, a 1989 report prepared by the Florida Department of Community Affairs analyzed several scenarios for improving wastewater management on St. George Island.

They found that an island-wide publicly funded system would be impracticable because of the obstacles to securing enough suitable or affordable land for this $20 million operation. Also, island residents would oppose a central plant on the island. A second option – servicing only the center section of the island publicly or privately – would be impracticable because it contemplates piping effluent across the Bay. This option would cost between $11,000 - $15,000 per connection (adjusted with the consumer price index, this sum would be almost $25,000 today), thus making it a "high cost" project, and the EPA would demand that all other alternatives be first studied and discarded.

The DCA report recommended that new and existing on-site systems be regulated closely. Specifically,

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and 22%. This study was conducted by the Florida Department of Environmental Protection. The formula customarily used to estimate septic output uses the average values of 2.6 persons per household and 7.7 pounds of nitrogen input per person, per day. Using various testing methods, the **nitrogen load** (the amount which actually enters the groundwater) estimates for the Wekiva Springs Area was between 14-18 pounds per system, per year.

- a single entity should be identified that could **exercise regulatory jurisdiction** over septic tanks
- **Eastpoint could expand their jurisdiction** to the island
- This regulatory agency would **make septic inspections and maintenance mandatory**
- Inspections would be **paid for through a user fee** assessed to each household

Faulty tanks would be subject to the provisions of the Apalachicola Bay Area Resource and Planning Management Committee ordinance which requires deficient tanks to be repaired according to the ordinance's schedule. The report suggests that new tanks may be of the traditional septic variety, but they must be installed according to County and HRS regulations. To help ascertain whether pollutants enter the bay through faulty septic systems, the DCA suggests a monitoring program should be put in place by FDEP.

The DCA was right to be concerned about maintenance of tanks and monitoring. New technologies for improving septic effluent are now available and are cost-competitive options for those who must maintain an on-site waste treatment system. Significantly, there are several demographic and geographic facts about St. George Island that argue against the continued reliance upon traditional septic tanks.

- High Residential Density on the Island
- High ground water table per FEMA soils maps
- Sandy soil types which move effluent rapidly through the soils

The County acknowledges these facts and has adopted an ordinance pertaining to the Critical Shoreline District that already delineates mandatory minimum setbacks of tanks in the District and requires new aerobic tank installation for all future development in this District.

In 1989 when this ordinance was originally adopted, the environmental implications of wide scale reliance on traditional septic systems were still controversial. In a 2002 study published in the journal *Environmental Pollution,* however, scientists determined

that the current arrangement of onsite sewage treatment and disposal systems (OSTDS) was contributing to the contamination of the water in Apalachicola Bay. By taking samples downfield from three onsite sewage treatment and disposal systems on the island, they determined that the source of increased nutrient concentrations was the effluent from traditional septic systems located too close to the water. As a control, the scientists measured nutrients from the water near an adjacent uninhabited island. Further studies conducted by the Florida Department of Environmental Protection and private firms have quantified the nitrogen loads to the Wekiva Springs Area and have linked increased development to increased nitrogen loads on the watershed.

This map indicates the water sample in the 2002 study.

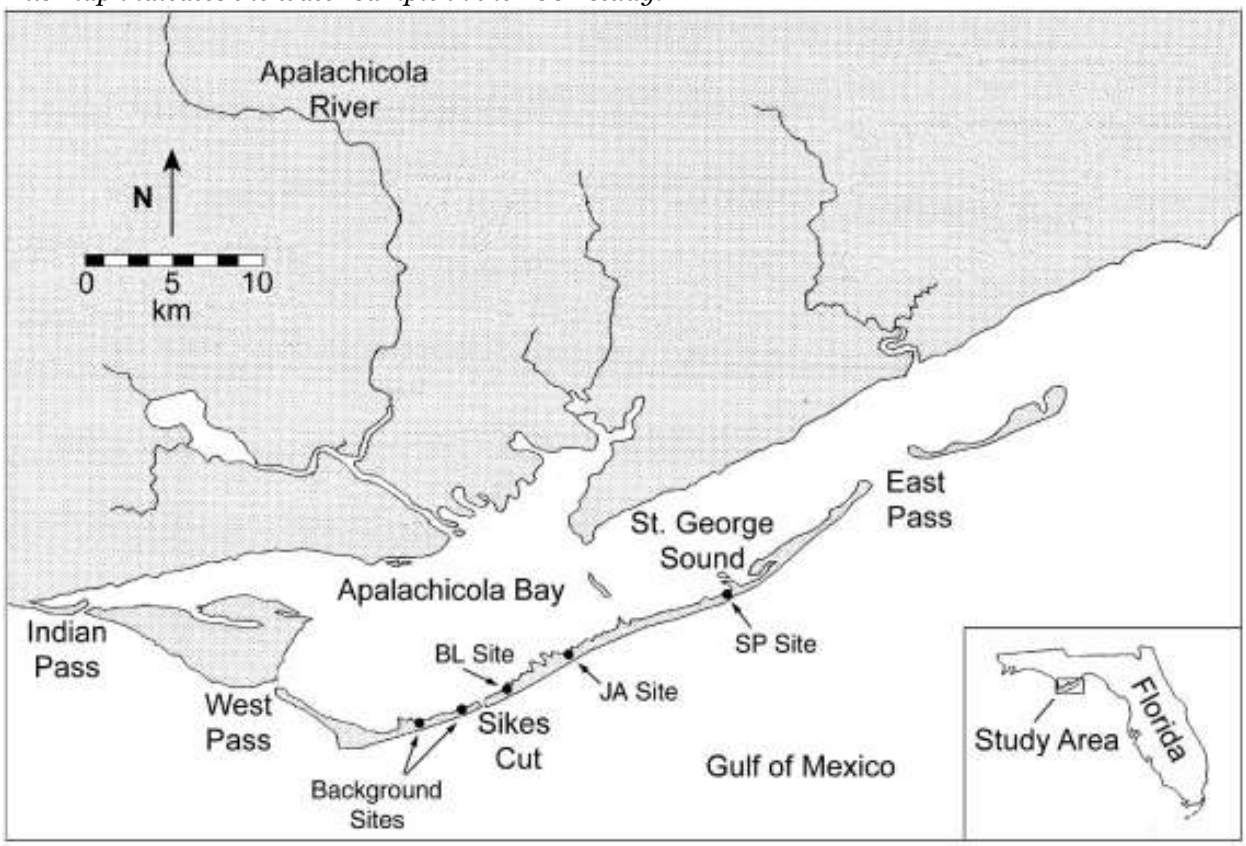

Fig. 1. St. George Island is a barrier island located in the northeastern Gulf of Mexico. Samples were collected from three different experimental sites located on St. George Island and two control sites located on undeveloped Little St. George Island, across from Sikes Cut.

The research is significant because this study tested the role of septic system nitrogen in Bay contamination specific to St. George Island.

> Our observations showed that nitrogen concentrations were attenuated to a greater extent than that of phosphorus relative to the conservative tracer. At the current setback distance (23 m), both nitrogen and phosphate concentrations are still elevated above natural levels by as much as 2 and 7 times, respectively.

This contamination is an immediate concern because

> St. George Island, like many barrier islands, forms the outer perimeter of an estuary (Apalachicola Bay) and is critical to the bay's productivity because its orientation determines the salinity distribution as well as other water quality features of the bay. Apalachicola Bay is one of the most economically important estuarine systems in Florida due to oyster and shrimp harvesting. The island, which is located within the Apalachicola National Estuarine Reserve, is developing at a rapid pace. This has resulted in a relatively high density of onsite sewage treatment and disposal systems (OSTDS) on the island. Growth in these and surrounding communities is of major concern with regard to the health of the estuary, which is likely sensitive to slight physical, chemical, and biological perturbations. In order to prevent the possible deterioration of Apalachicola Bay and other estuarine systems, including economic zones (oyster beds and areas of dense shrimp populations), contaminants of any type must be monitored closely.

The study found that both the type of system and shallow setback distance of the treatment system were both factors contributing to nitrogen contamination in the Bay.[4]

> Current setback distances (23 m) are insufficient to reduce nutrient concentrations to natural levels. By increasing the setback distance to approximately 50 m, most nutrient concentrations will be reduced to natural levels.[5]

The 2002 report suggested that acknowledging Nitrogen reduction as a goal on St. George Island would help mitigate the adverse consequences of these increased nutrient concentrations in the Bay.

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[4] Because of small lot sizes, moving tanks further away from water is not feasible.

[5] The study reports: Nutrient results indicate that the most efficient OSTDS on the island would be an aerobic system that was raised above the natural land elevation by approximately 1 m. There is a significant difference in the tank effluent of the aerobic tank relative to the two septic systems. Raising the OSTDS, such as at the BL site, provides additional time and material to filter the wastewater before it reaches the water table, thus significantly reducing the nutrient load to groundwaters and ultimately surface waters. Therefore, developing an aerobic system that is raised by as little as 1 m from the natural ground surface on St. George Island would likely provide the most efficient means for removing contaminants from the wastewater before it is introduced to the groundwater. In addition, increasing the setback distance to 50 meters from surface waters would provide better protection of surface waters at the current OSTDS density.8139481451

Following this science, Franklin County has required system owners in the Critical Shoreline District to use aerators when repairing a failed tank, or to use this "aerobic" type septic system for new tanks in this District. As the 2002 study revealed, these aerobic systems yield a cleaner effluent than septic tanks. The State of Florida Performance Based Septic Standards demonstrate that for pathogens, aerobic systems yield a significantly higher quality effluent than traditional septic systems, reducing the risk of high toxic loads to sensitive waters.

An additional concern – effluent quality problems with overuse by rental unit overload – is documented in detail by the Franklin County health department.

11.2 Mitigation of Septic System Contamination

Several states have now started programs to introduce advanced wastewater treatment systems to the typical onsite sewage facilities. The result of these systems is an overall reduction of nitrogen, as well as other contaminants in the wastewater.

Aerobic system improvements are mandatory for new development in the Critical Shoreline District (within 150 feet of mean high water), including all new development anywhere on St. George Island. The benefit of this ordinance is that the more advanced systems are more closely supervised than traditional septic systems. Aerobic systems require a maintenance contract (twice a year inspection), while the law requires no maintenance or inspection beyond the once yearly health department inspection for traditional systems.

How Aerobic Treatment Units Improve Wastewater Treatment

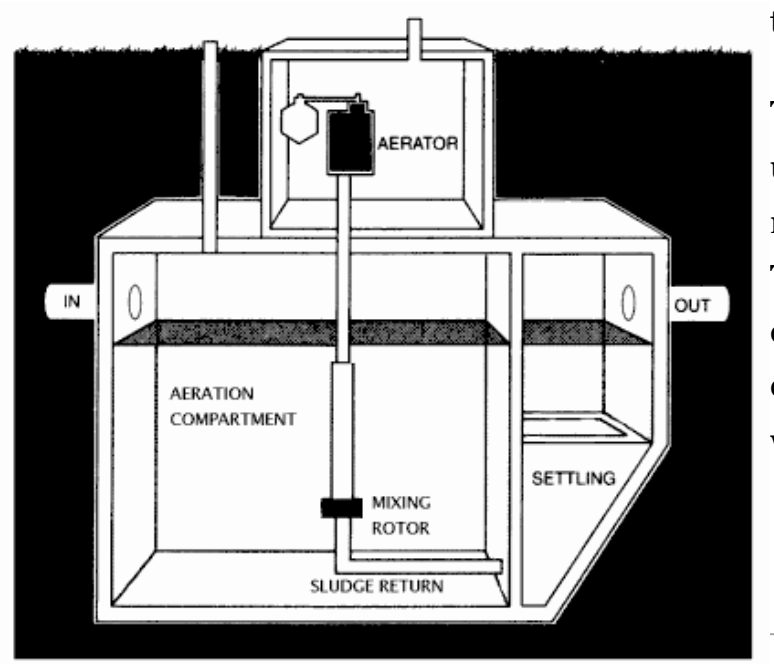
Aerobic systems are similar to septic systems in that they both use natural processes to treat wastewater. But unlike septic (anaerobic) treatment, the aerobic treatment process requires oxygen. Aerobic treatment units, therefore, use a mechanism to inject

and circulate air inside the treatment tank. This mechanism requires electricity to operate.

For this reason, aerobic systems cost more to operate and need more routine maintenance than most septic systems. However, when properly operated and maintained, aerobic systems can provide a high quality wastewater treatment alternative to septic systems without the high installation and maintenance costs associated with the more complex "performance based" systems (PBSS). Aerobic systems treat wastewater using natural processes that require oxygen. Bacteria that thrive in oxygen-rich environments work to break down and digest the wastewater inside the aerobic treatment unit.

Like most onsite systems, aerobic systems treat the wastewater in stages. Pre-treating wastewater before it enters the aerobic unit significantly improves the final quality of effluent. Some pretreatment methods include a septic tank, a primary settling compartment in the treatment unit, or a trash trap. Treated wastewater leaving the unit requires additional treatment (passage through a soil absorption field) before being returned to the environment.

The main function of the aerobic unit is to collect and treat household wastewater, which includes all water from toilets, bathtubs, showers, sinks, and laundry. Aerobic units themselves come in many sizes and shapes-rectangular, conical, and some shapes that defy classification.



The process most aerobic units use to treat wastewater is referred to as suspended growth. These units include a main compartment called an aeration chamber in which air is mixed with the wastewater. Since most

aerobic units are buried underground like septic tanks, the air must be forced into the aeration chamber by an air blower or a compressor.

The forced air mixes with wastewater in the aeration chamber, and the oxygen supports the growth of aerobic bacteria that digest the solids in the wastewater. Unfortunately, the bacteria cannot digest all of the solids in the mixed liquor, and these solids eventually settle out as sludge. Many aerobic units include a secondary chamber called a settling chamber or clarifier where excess solids can settle. Other designs allow the sludge to accumulate at the bottom of the tank.

In aerobic units designed with a separate settling compartment, the sludge returns to the aeration chamber (either by gravity or by a pumping device). The sludge contains bacteria that also aid in the treatment process. Although, in theory, the aerobic treatment process should eventually be able to consume the sludge completely, in practice, the sludge does build up in most units and the annual inspection will determine when the unit needs to be cleared of sludge (the State of Florida recommends that standard units be pumped once every five years regardless of the tank's condition).

Controlling the flow of wastewater helps to protect the treatment process. When too much wastewater is flushed into the system all at once, it can become overburdened and the quality of treatment can suffer. Advanced systems like Aerobic Treatment Units need the same care as standard septic tanks but are more sensitive to all the same elements. Only human waste, toilet paper, and other waste water from the home should go down the drain. Grease causes damage to the aerobic units and the drain field. Leftover food and food waste should be composted or put in the garbage if the home uses a septic system.

The disadvantages to mechanical flow control devices are that, like all mechanical components, they need maintenance and run the risk of malfunctioning.

Although properly operated and maintained aerobic units are very effective, the wastewater leaving the units is not ready to be returned to the environment and must

receive final treatment. Methods for final treatment include discharge to a soil absorption field and/or a sand filter. Soil absorption fields (or drainfields) are the most common method of final treatment. An aerobic unit can sometimes help to prolong the life of a drainfield.

Most aerobic units have controls that can be switched on and off by the homeowner in case of emergency. Aerobic units should also have alarms to alert the homeowner of malfunctions. Depending on the design of the system, controls and alarms can be located either inside or outside the home, and alarms can be visible, audible, or both.

11.3 Recommendations for St. George Island:

Franklin County already requires aerobic units on all new construction anywhere on St. George Island, and a property owner whose traditional tank fails must replace it with an aerobic unit. Because aerobic units are the most cost effective way to increase effluent quality and address nitrate reduction, this policy should remain in effect and the Franklin County Board of County Commissioners should consider the following:

Septic Recommendations for St. George Island
• **Define system "failure" as a system repair of any kind, including a repair to the drainfield**
• **Authorize the Environmental Manager of the Franklin County Health Department to require a unit size upgrade when a property owner's 3 month average domestic water flow exceeds the wastewater treatment system's design capacity**
• **Mandate that all septic units on the island meet the NSF/ANSI 245 standards for aerobic units by January 1, 2015. These national sanitation standards are designed for nitrogen reducing systems[6]** ***<u>The text of this standard, NSF 245, is included below</u>***

[6] NSF International (formerly the National Sanitation Foundation) is a nonprofit organization devoted to the protection of public health and the environment through the development of product standards, product evaluations, research, education, and training. The American National Standards Institute (ANSI) is the recognized accreditor in the U.S. for organizations that develop consumer standards and for those that provide independent product evaluations. NSF is accredited by ANSI for both of these areas of service. Aerobic units that satisfy the requirements of ANSI/NSF Standard 40 may carry the NSF mark (Standard 40 details what type of service is to be performed and what records need to be kept. Both the

• **County shall secure a three year contract with a testing facility to assure septic systems are compliant with the national standard NSF 245; annual fees shall be collected to cover the cost of these tests**
• **Define "commercial" as any establishment with a license to sell food or alcohol or any home used primarily as a rental or vacation property for the purpose of determining frequency of unit testing; all other businesses will follow the residential testing and fee schedule**
• **Commercial units shall have flow meters or similar devices that determine the volume of wastewater entering the system in a 24 hour period**
• **Implement a system of stakeholder involvement and education about the effects of septic contamination and the benefits of system upgrades to reduce resistance to the new requirements**

NSF/ANSI Standard 245

NSF/ANSI Standard 245 has been developed for residential wastewater treatment systems designed to provide for nitrogen reduction. The evaluation involves six months of performance testing, incorporating stress tests to simulate wash day, working parent, power outage, and vacation conditions. The standard is set up to evaluate systems having rated capacities between 400 gallons and 1500 gallons per day. Technologies testing against Standard 245 must either be Standard 40 certified or be evaluated against Standard 40 at the same time an evaluation is being carried out for Standard 245, as both tests can be run concurrently.

Throughout the testing, samples are collected during design loading periods and evaluated against the pass/fail requirements. A treatment system must meet the following effluent concentrations averaged over the course of the testing period in order to meet Standard 245:

- CBOD5 - >25 mg/L
- TSS - >30 mg/L
- Total Nitrogen - at least a 50% average of influent TKN
- pH - 6.0 to 9.0 SU

11.4 Governance

manufacturers and their distributors are inspected annually by NSF to ensure continued compliance with the requirements). In addition to testing their units, NSF requires manufacturers to include the cost of the first two years of service in the price of purchase. During this initial service contract, each piece of equipment must be serviced a minimum of two times per year, and emergency service must be available to the homeowner. Manufacturers must also offer the homeowner the option of renewing the service contract after the two years. In most cases, the service contract is carried out by the dealer selling the aerobic unit, who represents the manufacturer.

The most well known local ordinances that have attempted to regulate nutrient levels in septic effluent are in the Florida Keys and in Wakulla County. Both of these efforts to protect the environment from nitrates have created unintended consequences for homeowners. Both ordinances mandate expensive performance based systems over the entire jurisdiction.

For example, in March, 2008, Wakulla County, Florida adopted an ordinance requiring all new septic systems in the county adhere to the "performance standards" of a typical wastewater treatment plant, established by the State of Florida.[7] Wakulla County's motivation was to protect the Wakulla springs Basin from additional nitrogen contamination from failed traditional septic tanks. The requirements to treat septic effluent to Performance Based Standards are outlined in the Florida Administrative Code, 64e-6, and are costly to implement. While disinfected water from a performance based system can be equivalent to the reclaimed water lines municipalities use, and most systems can be installed under driveways further enhancing design flexibility and reducing drainfield size by up to 40%,[8] they are cost-prohibitive because of provisions in the Florida Administrative Code that requires that these systems be designed by engineers and inspected every three months. Owners of Performance Based Systems bear the same costs for state inspections (in the form of a bi-yearly operating permit, paid to the Health Department), and they must also pay to have the system's effluent tested every six months at substantial expense.

Other Florida municipalities have struggled with weighing homeowner concerns against environmental and public health imperatives. The City of Jacksonville has adopted strict regulatory codes for new and existing systems in an effort to reduce septic system contamination of the St. Johns River system.

Jacksonville, Florida: Limitation on new systems near waterways

[7] Chapter 381 of the Florida Statute outlines these performance based standards.
[8] http://www.enviro-net.com/main.asp?page=story&id=2&month=01&paper=fl&year=2004

- Increase setback for installation of new septic tanks beyond the current standard of 75 feet from the mean high water line of a tidally influenced water body as defined in the Florida Administrative Code and Florida Statutes.
- Only performance-based septic systems may be constructed between 150 feet and 300 feet away from the mean high water line of a tidally influenced water body.
- Only performance-based septic systems may be constructed within hurricane evacuation zone 1 or the coastal high hazard zones, with one exception: Existing septic systems permitted prior to July 31, 2006 may continue to operate within 300 feet of the mean high water line of tidally influenced surface bodies of water with a permit until they become a sanitary nuisance or until connection with regional sewer is possible.
- Existing systems that fail within an area where no regional sewer exists will be required to rehabilitate the systems in compliance with the most current standards unless they are located within a failed septic tank area, which are regulated by city ordinances.

Additionally, to achieve a zero sum gain on the septic system stress on the waterways, each homeowner or developer who installs a new system must contribute to a fund to connect unserved households to the City's main sewer within the same basin.[9]

Jacksonville will also increase their septic enforcement activities and has announced a period of amnesty period for home-owners who self-report tank failures or illegal tie-ins. After the period of amnesty, the investigators will zealously respond to infractions of the septic code.

Aerobic systems provide nutrient reduction at a more affordable cost than performance based systems, while offering the benefit of better maintenance and testing standards. Many homeowners will be able to retrofit existing tanks with aerators to meet the standards for nitrogen treatment.

[9] For more information on local governments' response to implementation of performance based standards around Florida, see: http://www.coj.net/Mayor/River+Accord/Septic+Tank+Enforcement.htm, Florida Department of Health. 2007. *Nitrogen Impact from Onsite Sewage Treatment and Disposal Systems in the Wekiva Study Area*. Report to Governor Charlie Crist compiled by Briggs, G.R., E. Roeder, and E.L. Ursin. Tallahassee, FL. http://www.doh.state.fl.us/environment/ostds/wekiva/task.htm

11.6 Sources of Funding

Compared with the cost of limited or full-scale central sewer systems, continuing to monitor existing systems closely and requiring aerobic upgrades in five years is a modest financial proposal where users take responsibility for the effluent produced on their own property. Financing may be available to assist those homeowners who cannot independently meet the heightened treatment requirements.

State law allows Franklin County to allocate SHP funds for septic system upgrades, or homeowners might seek a low-interest loan through the Department of Environmental Protection for help affording a septic upgrade.

Franklin County could also offer creative financing solutions like offering homeowners low-interest loans that they pay back over time. Conversely, the County might seed an escrow account with a portion of fees collected for residential or commercial unit testing might be set aside to be used to fund a grant program for low-income home owners that would earn interest enough to help defray homeowners' replacement or repair expenses, should they prove their financial need. One possible creative solution may be that any funds collected that exceed the cost of testing may be placed in escrow to help fund system upgrades for homeowners determined by the Board of Commissioners to be financially unable to pay privately.

One state has successfully implemented a low-cost loan program for citizens who required assistance upgrading their septic systems. Called the Onsite Wastewater System Assistance Program (OSWAP), the government offers low-interest loans through participating lenders to credit-worthy homeowners who need to replace their on-site septic system. Lenders issue loans at rates of 3% or less, for amounts of between $2,000 and $10,000, for a maximum repayment period of 10 years. The program limits eligibility to owners of existing homes in areas not served by a public sewer.

The Department of Environmental Protection uses the state's Onsite Wastewater Assistance Fund (OWAF) to buy down loan interest rates charged by participants who agree to make low-interest loans to homeowners for county-approved septic systems. The DEP transfers an amount equal to the loan from the OSWAF into a non-interest demand deposit account with the participating lender. Since the lender assumes the loan risk in this program, a homeowner must first qualify for a loan from the lender to participate. After approving the loan, the lender contacts the OSWAF financial agent to reserve a loan deposit from the OSWAF. After the onsite system is installed and approved by the county sanitarian, the lender requests the loan deposit from the financial agent, who then transfers the loan deposit to the lender. The homeowner then repays the lender for the loan.

The variety of financial programs and incentives for wastewater upgrades should provide the County with a high level of confidence that an island-wide septic system upgrade is a reasonable expectation for the near future.

Florida Department of Environmental Protection

Northwest District Branch Office
2815 Remington Green Circle, Suite A
Tallahassee, Florida 32308-1513

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

October 2, 2007

The Honorable Boyd Howze
City of Apalachicola
1 Avenue E
Apalachicola, Florida 32320

RE: City of Apalachicola WWTF
Franklin County, FL0038857-002-DW1P

Dear Mayor Howze:

On September 20, 2007, a Department representative conducted an inspection of the City of Apalachicola wastewater treatment facility. A copy of the inspection form is enclosed. We would like to thank Messrs. Todd Baldwin and Jean-Pierre Roberts for their cooperation during the routine inspection.

Please address the "Inspection Comments" noted on the inspection report form regarding the Significant Out-of-Compliance rating with regard to Effluent Quality and Operation & Maintenance. A written notification to the above address is required within 30 days of the receipt of this letter.

If you have any questions regarding the inspection, you may contact Gary Hardie at (850) 488-3704.

Sincerely,

G P Neubauer

G. P. Neubauer
Branch Office Manager

GPN/gh
Enclosure

cc: Greg Smith, FDEP (greg.smith@dep.state.fl.us)
Kacey J. Smith, FDEP (kacey.smith@dep.state.fl.us)
Michael Tanski, FDEP (michael.tanski@dep.state.fl.us)
Jonathan May, FDEP (jonathan.may@dep.state.fl.us)

FIESTA ENTRY DATE
10/02/07

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WASTEWATER COMPLIANCE INSPECTION REPORT

FACILITY AND INSPECTION INFORMATION

@ = Optional

Name and Physical Location of Facility	WAFR ID:	County	Entry Date/Time
City of Apalachicola WWTP	FL0027839	Franklin	09/20/07 at 09:59 AM
US Highway 98 West		Phone	Exit Date/Time
Apalachicola, FL 32320		(850) 653-8507	09/20/07 at 01:55 PM

Name(s) of Field Representatives(s)	Title	@ Operator Certification #	Phone
Mr. Todd Baldwin, ESG, Inc.	Project Manager		850-653-8507
Mr. Jean-Pierre Roberts, ESG, Inc.	Operator	B-0012009	

Name and Address of Permittee or Designated Representative	Title	Phone	@ Operator Certification #
Honorable Boyd Howze, Jr.	Mayor	(850) 653-9319	
City of Apalachicola			
1 Avenue E			
Apalachicola, FL 32320			

Inspection Type	C	E	I	Samples Taken(Y/N): No	@ Sample ID#:	Samples Split (Y/N): N
☒ Domestic	☐ Industrial			Were Photos Taken(Y/N): Yes	@ Log book Volume : II	@ Page 58-59

FACILITY COMPLIANCE AREAS EVALUATED

IC: In Compliance; NC: Out of Compliance; SC: Significant out of Compliance; NA: Not Applicable; NE or Blank: Not Evaluated
Significant Non-Compliance Criteria Should be Reviewed when Out of Compliance Ratings Are Given in Areas Marked by a "♦"

	PERMITS/ORDERS		SELF MONITORING PROGRAM		FACILITY OPERATIONS		EFFLUENT/DISPOSAL
IC	1.♦Permit	IC	3. Laboratory	NC	6. Facility Site Review	SC	9. ♦Effluent Quality
IC	2.♦Compliance Schedules	IC	4. Sampling	IC	7. Flow Measurement	IC	10.♦Effluent Disposal
		IC	5.♦Records & Reports	NC	8.♦Operation & Maintenance	IC	11. Residuals/Sludge
	13. Other:					IC	12. Groundwater

Facility and/or Order Compliance Status: ☐ In-Compliance ☐ Out-Of-Compliance ☒ Significant-Out-Of-Compliance

Recommended Actions:

Name(s) and Signature(s) of Inspector(s)	District Office/Phone Number	Date
Gary J. Hardie *Gary J. Hardie*	TBO/ (850) 488-3704	October 2, 2007
@ Signature of Reviewer G. P. Neubauer *GP Neubauer*	District Office/Phone Number TBO/ (850) 488-3704	Date October 2, 2007

Fill Out This Section For All Surface Water Discharger Inspections (CEI, CSI, CBI, PAI, XSI, RI, ASI, ANI)

Transaction Code	NPDES Number	YR/MO/DA	Insp Type	Inspector	Fac Type
N 5	F L 0 0 3 8 8 5 7	0 7 0 9 2 0	1 C	2 S	3 1

Inspection Type (Field 1) A:PAI, B:CBI, C:CEI, S:CSI, X:XSI, R:RI, \:ASI, =:ANI
Inspection Code (Field 2): S: State, J: Joint EPA/State-EPA Lead, T: Joint State/EPA-State Lead, L: Local Program
Facility Type (Field 3): 1: Municipal (Publicly Owned), 2: Industrial and Privately Owned Domestic, 3: Agricultural, 4: Federal
Every other field is self explanatory

INSPECTION COMMENTS

PERMITS/ORDERS

PERMIT: In Compliance

FDEP Permit FL0038857-002-DW1P was issued on July 16, 1999 (revised on December 10, 1999, February 9, 2000, March 29, 2000, April 11, 2002, and March 21, 2003), and expired July 1, 2004. The application for renewal of the permit was received on December 19, 2003 and considered complete as of November 30, 2004. Until the new permit is issued, the expired permit for this facility will be administratively continued. A copy of the expired permit was onsite and available for inspection.

COMPLIANCE SCHEDULES: In Compliance

The facility was placed under Consent Order #97-0985B on December 1, 1998. The document was amended on December 15, 1999 with requirements for operational upgrades to the wastewater treatment process. On August 16, 2002, a Second Amendment to the Consent Order was issued extending compliance deadlines due to delays in the installation of the City of Apalachicola's vacuum sewer system. The collection system was completed. The Department issued clearance for the system to be placed into service on March 5, 2003. On March 21, 2003, the Department revised the compliance schedule to state that in accordance with the Consent Order and its amendments, the facility must perform a Level II Water Quality Based Effluent Limitation (WQBEL) study on the receiving wetlands and adjust effluent parameter limits to comply with results of the study. On March 2, 2004, the Department again revised the compliance schedule requiring the completed Level II WQBEL study to be submitted to the Department by June 29, 2005. In addition, more stringent effluent parameter limits were implemented for this facility. **On July 6, 2007 Consent Order (OGC File No. 07-0559-19-DW), with accompanying schedule for compliance, was issued to address various effluent quality violations occurring between March of 2004 and November of 2006.**

SELF-MONITORING PROGRAM

LABORATORY: In Compliance

All onsite effluent parameter checks [Total Residual Chlorine (TRC) on chlorination and de-chlorination samples, Dissolved Oxygen (D.O.), as well as pH] are conducted using the Hach Odyssey DR2500 meter. Daily samples of pH are analyzed using pH buffers of 4, 6, 7, and 10 for proper calibration. On the day of the inspection, all of the pH buffer solutions appeared to be current. A daily calibration log is maintained for both instruments. Analysis of samples for Fecal Coliform is conducted by the Water Spigot of Panama City, Florida. All other water quality parameters (TSS, CBOD5, Total Nitrogen, Total Kjeldahl Nitrogen, Total Ammonia Nitrogen, Total Phosphorus, Total Recoverable Silver, and Specific Conductance) are shipped to Flowers Chemical Laboratories, Inc. in Altamonte Springs, Florida for analysis. A review of the daily operational logs and COC forms, indicated that samples are analyzed within their designated holding times.

SAMPLING: In Compliance

TRC, DO, and pH are analyzed a minimum of six times daily as part of the staff's operational routine. Each sample is analyzed within 15 minutes of collection, as indicated by the daily operations log. All

other parameters are determined on a weekly basis by having the Operator collect effluent samples in sterile containers and sending them to Bay Environmental Laboratories in Panama City for analysis. TSS, CBOD5, Total Nitrogen, Total Kjeldahl Nitrogen, Total Ammonia-Nitrogen, Total Phosphorus, and Total Recoverable Silver samples are derived from a 24-hour Flow-Proportional Composite (collected in an Isco Model 3700FR Refrigerated Sequential Sampler), while the Fecal Coliform and Specific Conductance analyses are based on a grab sample. A calibrated thermometer within the Isco sampler confirmed that the samples are being maintained at 4°C. A review of the daily log sheets and COC records indicates that analyses are consistently done within required hold times.

RECORDS AND REPORTS: In Compliance

Monthly Discharge Monitoring Reports (DMR's); COC forms; daily operational and calibration logs; equipment maintenance, calibration, and sludge transport records; as well as the Operations and Maintenance (O&M) Manual are all maintained at the facility.

FACILITY OPERATIONS

FACILITY SITE REVIEW: Out of Compliance

The grounds surrounding this facility are fenced, mowed, and well-maintained. **At the time of this inspection, the rotating bar screen was not functional (extensive rusting) and had been bypassed. According to Mr. Baldwin, implementation of this repair has been included in a capital improvement funding plan. Influent collecting within the de-grit chamber featured a thick surface layer of grease and floating solids. There was also an overpowering odor (noticeable at the entrance to the facility) emanating from the head works. It is suggested that options for odor reduction be investigated.** Cylinder tanks of Sulfur Dioxide gas, used for de-chlorination of effluent, are stored in a secure fiberglass shed featuring an external power switch and a fan vent near the floor. Chlorine gas is stored in 1-ton tanks under an open shelter. All onsite hazards are clearly posted. An alarm system is in place to alert plant operators of problems twenty-four hours a day. The chlorine leak detector is also tied into an auto-dialer system. A backup onsite diesel generator (500 kilowatts), capable of assuming all plant activities, is automatically tested under load on a weekly basis.

FLOW MEASUREMENT: In Compliance

The primary flow measurement device at this facility is a 90° V-notch weir located at the outfall of the CCC. A Milltronics Probe Ultrasonic Flow Meter serves as the secondary device. Daily flow data for both the influent and effluent are printed on a Chessell 392 Recorder located in the facility's office. **Johnny Ray Fontenot of the Florida Rural Water Association last calibrated and certified the flow meter on September 25, 2006. A review of DMR's from August 2006 through July 2007 indicates that this 1.0 MGD permitted facility experienced an average annual flow of 0.279 MGD with monthly values ranging from 0.263 to 0.287 MGD.**

OPERATION AND MAINTENANCE: Out of Compliance

Class C or higher Operators staff this facility a minimum of sixteen (16) hours each day at least five (5) days per week with four (2) hours during the weekend. The head works are equipped with both a rotating bar screen and grit chamber for greater solids removal. All screenings and grit are collected

into green covered waste management bins for disposal. Aluminum sulfate is fed into the influent stream following grit removal for phosphate reduction. The treatment capacity of this facility consists of three Sequencing Batch Reactor (SBR) chambers which each provide nitrification, de-nitrification, phosphorus removal, and secondary clarification, prior to dispensing into the central equalization tank. At the time of inspection, only two of the three were in use for treatment. The remaining tank currently serves as a post-equalization basin. The effluent is then pumped through an aqua-disk cloth filter for further treatment. From that point, the effluent is sent into parallel CCC for disinfection. After passing over a 90° V-notch weir, it is treated with sulfur dioxide gas diffusers for de-chlorination. The effluent then flows down a stepped spillway to increase DO as it the facility. At the time of inspection, all onsite reuse equipment had been taken out of service for use in plant processes. **No record of a recent annual backflow prevention certification was available during this inspection. Backflow prevention devices must be certified at least once annually.**

EFFLUENT/DISPOSAL

EFFLUENT: Significant Out of Compliance

On the day of the inspection, the effluent in the CCC appeared clear and free of floating or settled debris. **A daily samples yielded a pH of 7.3, TRC for disinfection of 0.57 mg/l, and a de-chlorination TRC <0.02 mg/l. A review of the DMRs from August 2006 through July 2007 indicates that samples from this facility exceeded permit limits for multiple parameters during that period. The 0.83 µg/l limit for Total Recoverable Silver was exceeded twice (1.17 µg/l on March 19, 2007 and 3.1 µg/l on June 8, 2007). The facility exceeded both the 1.25 mg/l monthly average and the 2.0 mg/l single sample maximum during August 2006 (5.0 mg/l). In addition, samples from this facility exceeded the 0.01 TRC for de-chlorination numerous times (0.02 mg/l on March 25, 2007; 0.03 mg/l on May 15, 2007; 0.02 mg/l on May 16, 2007, and 0.02 mg/l on May 17, 2007). The facility also failed to maintain the 0.5 mg/l minimum TRC for disinfection on multiple occasions (0.02 on March 13, 2007; 0.04 mg/l on March 14, 2007; 0.22 mg/l on May 15, 2007; and 0.42 mg/l on May 16, 2007). Lastly, the following table contains the data for Total Nitrogen violations during the monitored period:**

Parameter	Nitrogen,Total
	A.A. 3.0 mg/l
Month	
Aug-06	4.7 mg/l
Sep-06	4.8 mg/l
Oct-06	4.7 mg/l
Nov-06	4.6 mg/l
Dec-06	3.97 mg/l
Jan-07	3.5 mg/l
Feb-07	3.5 mg/l
Mar-07	3.6 mg/l
Apr-07	3.4 mg/l
May-07	3.1 mg/l
Jun-07	
Jul-07	

However, in addition to permit requirements, the facility has voluntarily implemented set effluent reject limits to help prevent further excursions from compliance with FDEP Permit FL0038857-002-DW1P.

DISPOSAL: In Compliance

Effluent flows from the base of the facility's spillway and out an exit pipe, where it is then pumped approximately 3 miles to the Point of Discharge (POD) within Huckleberry Swamp (eventually to Class III waters of Huckleberry Creek), as provided by FDEP Permit FL0038857-002-DW1P. At the time of inspection, the facility had employed the service of inmates to assist in the ongoing process of providing safe access at all sampling points.

RESIDUALS MANAGEMENT: In Compliance

Waste activated sludge is processed in dual aerobic digesters prior to dewatering within the facility's eight drying beds. Dried residuals are then transported to the Franklin County Landfill for disposal as needed.

GROUNDWATER: In Compliance

An inspection of the GMR's from the third quarter of 2006 through the second quarter of 2007 indicates that none of the four designated Compliance Monitoring Wells differ substantially from the levels of analyzed parameters as seen in the Background Monitoring Well. Other than pH (below 5.0), all parameters sampled collected from the onsite monitoring wells appear to have met Primary and Secondary Drinking Water Standards.

Florida Department of Environmental Protection

Northwest District Branch Office
2815 Remington Green Circle, Suite A
Tallahassee, Florida 32308-1513

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

August 8, 2007

The Honorable Mary E. Kelly
Mayor of Carrabelle
Post Office Drawer 569
Carrabelle, Florida 32322

RE: City of Carrabelle WWTF
Franklin County, FLA100641-001-DW2R

Dear Mayor Kelly:

On July 17, 2007, a Department representative conducted an inspection of the City of Carrabelle wastewater treatment facility. A copy of the inspection form is enclosed. We would like to thank Mr. Charles Painter for his cooperation during the routine inspection.

Please address the "Inspection Comments" noted on the enclosed inspection report form regarding the Out of Compliance rating with regard to Flow Measurement and Groundwater. A written notification to the above address is required within 30 days of the receipt of this letter.

If you have any questions regarding the inspection, you may contact Gary Hardie at (850) 488-3704.

Sincerely,

Cliff McKeown
Engineer Specialist

CM/gh
Enclosure

cc: Charles Painter, Lead Operator
Greg Smith, FDEP
Jennifer Gillham, FDEP
Jonathan May, FDEP

FIESTA ENTRY DATE
08/08/07

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WASTEWATER COMPLIANCE INSPECTION REPORT

FACILITY AND INSPECTION INFORMATION

Name and Physical Location of Facility	WAFR ID:	County	Entry Date/Time
City of Carrabelle WWTP 1648 Kenneth B. Cope Avenue Carrabelle, Florida 32322	FLA100641	Franklin Phone (850) 528-0628	07/17/07 at 10:08 AM @ Exit Date/Time 07/17/07 at 11:30 AM

Name(s) of Field Representatives(s)	Title	@ Operator Certification #	Phone
Mr. Charles Painter	Lead Operator	B-0008921	(850) 528-0628
Mr. Keith Mock	Superintendent		

Name and Address of Permittee or Designated Representative	Title	Phone
The Honorable Mary E. Kelly City of Carrabelle Post Office Drawer 569 Carrabelle, Florida 32322	Mayor	(850) 697-3914

Inspection Type: C | E | I — Samples Taken(Y/N): No — @ Sample ID#: — Samples Split (Y/N): N

☒ Domestic ☐ Industrial — Were Photos Taken(Y/N): Y — @ Log book Volume : II — @ Page 33

FACILITY COMPLIANCE AREAS EVALUATED

IC: In Compliance; NC: Out of Compliance; SC: Significant out of Compliance; NA: Not Applicable; NE or Blank: Not Evaluated
Significant Non-Compliance Criteria Should be Reviewed when Out of Compliance Ratings Are Given in Areas Marked by a "♦"

	PERMITS/ORDERS		SELF MONITORING PROGRAM		FACILITY OPERATIONS		EFFLUENT/DISPOSAL
IC	1.♦Permit	IC	3. Laboratory	IC	6. Facility Site Review	IC	9. ♦Effluent Quality
IC	2.♦Compliance Schedules	IC	4. Sampling	OC	7. Flow Measurement	IC	10.♦Effluent Disposal
		IC	5.♦Records & Reports	IC	8.♦Operation & Maintenance	IC	11. Residuals/Sludge
	13. Other:					OC	12. Groundwater

Facility and/or Order Compliance Status: ☐ In-Compliance ☒ Out-Of-Compliance ☐ Significant-Out-Of-Compliance

Recommended Actions:

Name(s) and Signature(s) of Inspector(s)	District Office/Phone Number	Date
Gary J. Hardie *Gary J. Hardie*	TBO/ (850) 488-3704	August 8, 2007
@ Signature of Reviewer Cliff McKeown *Cliff McKeown*	District Office/Phone Number TBO/ (850) 488-3704	Date August 8, 2007

Fill Out This Section For All Surface Water Discharger Inspections (CEI, CSI, CBI, PAI, XSI, RI, ASI, ANI)

Transaction Code	NPDES Number	YR/MO/DA	Insp Type	Inspector	Fac Type
N 5			1	2	3

ADDITIONAL NPDES COMMENTS

Inspection Type (Field 1) A:PAI, B:CBI, C:CEI, S:CSI, X:XSI, R:RI, \:ASI, =:ANI
Inspection Code (Field 2): S: State, J: Joint EPA/State-EPA Lead, T: Joint State/EPA-State Lead, L: Local Program
Facility Type (Field 3): 1: Municipal (Publicly Owned), 2: Industrial and Privately Owned Domestic, 3: Agricultural, 4: Federal
Every other field is self explanatory

INSPECTION COMMENTS

PERMITS/ORDERS

PERMIT: In Compliance

FDEP Permit FLA100641-006-DW1P/NR was issued on October 26, 2006 (revised December 6, 2006 as FLA100641-007-DW1/MR) and expires October 25, 2011. A copy of the permit was onsite and available for inspection. **An application for renewal should be submitted at least 180 days prior to expiration of the current permit.**

COMPLIANCE SCHEDULES: In Compliance

Warning Letter (NW DW 19-1506) regarding residuals disposal was issued on March 2, 2006. A Consent Order with a schedule for compliance is currently being drafted to address remaining concerns. Warning Letter (NW DW 19-1536) with regard to permit status was issued on June 14, 2006. On October 27, 2006 the Department issued a Model Consent Order (OGC File No. 06-1465-19-DW). At the time of this inspection, all requirements had been satisfied.

SELF-MONITORING PROGRAM

LABORATORY: In Compliance

The Total Residual Chlorine (TRC) is continuously analyzed using a Hach CL17 in-line chlorine analyzer. A Hach Pocket Colorimeter, with powdered reagent packets as part of the DPD Colorimetric Method, is used daily to verify accuracy. A Cerlic BB2 in-line continuous meter analyzes pH. For backup and daily comparison, the operators employ an Oakton pH500 Series Meter and Probe using premixed pH 4, 7, and 10 buffers. Calibration logs for both instruments are maintained onsite. The Water Spigot of Panama City conducts laboratory analyses of CBOD5, TSS, and Fecal Coliform on a weekly basis. Based on a review of the daily operational logs and Chain of Custody (COC) forms, all samples are analyzed using approved methods.

SAMPLING: In Compliance

All samples are collected from the Chlorine Contact Chamber (CCC). Weekly samples for CBOD5 and TSS are collected using an ISCO Model 3710R refrigerated sampler connected to the facility's flow meter. The sampler is set to collect a 16 hour flow-proportioned composite. Weekly grab samples are collected for analysis of Fecal Coliform levels. Based on a review of the daily operational logs and COC forms, all samples have been consistently analyzed within designated holding times.

RECORDS AND REPORTS: In Compliance

Monthly Discharge Monitoring Reports (DMR's); COC forms; daily operational and calibration logs; equipment maintenance, calibration, and sludge hauling records; as well as the Operations & Maintenance (O&M) Manual are all maintained at the facility.

FACILITY OPERATIONS

FACILITY SITE REVIEW: In Compliance
The facility is completely surrounded by a secure fence and the grounds are well-maintained. There are two onsite diesel generators (800 KW and 60 KW) capable of assuming all plant activities in the event of power loss. All process chemicals are kept in two dedicated buildings featuring bay doors, ventilation fans near the floor and leak detection systems. All hazardous materials onsite are clearly marked. The chlorine storage houses 55-gallon drums of liquid bleach. Disinfection is accomplished by introduction of chlorine solution (Aquaguard Bleach hypochlorite) to the CCC as effluent is decanted. Some treated effluent is utilized as reuse water for washing down facility components. All piping for reuse water featured purple paint and signs indicating that they contain non-potable water. An onsite reduced pressure zone (RPZ) backflow prevention device was last inspected and certified by William B. Stephens on March 13, 2007. The wet weather storage tank serves to provide up to 2.5 million gallons of storage capacity in the event of a twenty year twenty-four hour storm event.

FLOW MEASUREMENT: Out of Compliance

Flow to the plant is measured with Endress+Hauser Promag50 magnetic meters as it passes through two influent pipes. One is dedicated to receiving flow from the City of Carrabelle. The other receives combined influent from St. James Bay and the Franklin County Department of Corrections. A review of DMR's from July 2006 through June 2007 indicates that this 1.2 MGD plant experienced an average annual flow of 0.149 MGD. **Subsequent to the inspection, Johnny Ray Fontenot with the Florida Rural Water Association calibrated and certified both meters on August 1, 2007.**

FDEP Permit FLA100641-006-DW1P/NR Conditions I.A.3, I.A.9, and I.B.4:
Recording flow meters and totalizers shall be utilized to measure flow and calibrated at least annually. [62-601.200(17) and .500(6)]

OPERATION AND MAINTENANCE: In Compliance

As per FDEP Permit FLA100641-007-DW1/MR, Class C or higher operators staff this facility a minimum of ten (10) hours each day seven (7) days per week until such time as monthly average flow exceeds 0.5 MGD. At that point, the facility will be staffed a minimum of sixteen (16) hours per day seven (7) days each week. The treatment train consists of influent screening, grit removal, dual Sequencing Batch Reactors (SBR), filtration, and disinfection. Due to low flows, only one SBR is being utilized in the treatment process at this time. In an attempt to reduce effluent phosphate levels, centrate from the residuals drying process is pumped back to the digester instead of the head works. This inspection confirmed that all systems within the facility were fully operational.

EFFLUENT/DISPOSAL

EFFLUENT: In Compliance

At the time of inspection, the effluent within the dual clarifiers was clear with some light patches of grease and floating solids on the surface, most of which were removed with floating skimmers. The effluent passes over a system of toothed metal weirs and is collected in circular metal troughs. Chlorine tablets are added to the troughs to discourage algal growth. From the clarifiers, the effluent

moves into the CCC, where chlorine gas is introduced. The CCC is designed with a retention time of approximately one hour to ensure adequate disinfection. At the time of the inspection, the effluent within the CCC appeared mostly clear and featured a green tint due to the presence of algae. **A daily sample yielded a pH of 7.1 and a TRC level of 1.88 mg/l.** A review of the Discharge Monitoring Reports (DMR's) from July 2006 through June 2007 indicates that this facility exceeded permit limits established in FDEP Permit FLA100641-006-DW1P/NR for Total Phosphorus and Total Nitrogen on several occasions. However, in these instances, effluent has been directed to the reject pond instead of reuse.

DISPOSAL: In Compliance

The treated effluent flows via gravity from the CCC to a lined holding pond adjacent to the facility. From that point it is pumped out for application to an onsite 33-acre spray field, as described in FDEP Permit FLA100641-006-DW1P/NR. Provisions also exist for the reuse of treated effluent at the St. James Bay Golf Course, as well as, the Franklin County Correctional Facility depending on need and effluent quality.

RESIDUALS MANAGEMENT: In Compliance

Residuals are dewatered using a USFilter Centramax centrifuge and collected in dumpsters until transport for composting at the Franklin County landfill, as described in FDEP Permit FLA100641-006-DW1P/NR.

GROUNDWATER: Out of Compliance

A review of the GMR's from the third quarter of 2006 through the second quarter of 2007 indicates that groundwater samples have exceeded permit limits for several monitored parameters. During the third quarter of 2006, samples from MWC10 exceeded the 5µg/l maximum for Cadmium on one occasion (12.2 µg/l on July 27, 2006). However, this was consistent with the 10.3 µg/l value from MWB-1 (Surficial Background). During the fourth quarter of 2006, the 1.8 MPN sample maximum for Fecal Coliform was exceeded on one occasion (920 MPN on October 26, 2006). In addition, pH values in several wells have consistently remained below the minimum of 6.5 S. U. set forth in FDEP Permit FLA100641-006-DW1P/NR during the monitored period. However, the low pH values appear to be consistent with the pH of Monitoring well MWB-15 (Surficial Background), which ranges from approximately 4 - 5 S.U.

Florida Department of Environmental Protection

Northwest District Branch Office
2815 Remington Green Circle, Suite A
Tallahassee, Florida 32308-1513

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

October 23, 2007

SENT VIA E-MAIL
wmshg2000@yahoo.com

Mr. Hank Garrett, Manager
East Point Water & Sewer District
40 Island Drive
Eastpoint, Florida 32328

RE: Eastpoint WWTP
Franklin County, FDEP Permit FLA010065-003-DW2P/NR

Dear Mr. Garrett:

On October 16, 2007, a Department representative conducted an inspection of the Eastpoint wastewater treatment facility. A copy of the inspection form is enclosed. We would like to thank Mr. Hank Garrett for his cooperation during the routine inspection.

At the time of inspection, the treatment plant appeared to be operating in a satisfactory manner.

If you have any questions regarding the inspection, please contact Gary Hardie by phone at (850) 488-3704 or e-mail gary.hardie@dep.state.fl.us.

Sincerely,

Cliff McKeown
Engineer Specialist

CM/gh
Enclosure

cc: Greg Smith, FDEP (greg.smith@dep.state.fl.us)
Kacey J. Smith (kacey.j.smith@dep.state.fl.us)
Jonathan May, FDEP (jonathan.may@dep.state.fl.us)

FIESTA ENTRY DATE
10/23/07

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WASTEWATER COMPLIANCE INSPECTION REPORT

FACILITY AND INSPECTION INFORMATION

Name and Physical Location of Facility	WAFR ID:	County	Entry Date/Time
Eastpoint Water & Sewer District WWTP	FLA010065	Franklin	10/16/07 at 12:55 PM
Sewer Plant Road		Phone	@ Exit Date/Time
Eastpoint, Florida 32328		(850) 670-8177	10/16/07 at 02:30 PM

Name(s) of Field Representatives(s)	Title	@ Operator Certification #	Phone
Mr. Hank Garrett	Operator	C-0007469	(850) 670-8281

Name and Address of Permittee or Designated Representative	Title	Phone
Mr. Hank Garrett	Manager	(850) 670-8177
Eastpoint Water & Sewer District		
40 Island Drive		
Eastpoint, FL 32328		

Inspection Type	C	E	I	Samples Taken(Y/N): No	@ Sample ID#:	Samples Split (Y/N): N

☒ Domestic ☐ Industrial Were Photos Taken(Y/N): Y @ Log book Volume : II @ Page 67-68

FACILITY COMPLIANCE AREAS EVALUATED

IC: In Compliance; NC: Out of Compliance; SC: Significant out of Compliance; NA: Not Applicable; NE or Blank: Not Evaluated
Significant Non-Compliance Criteria Should be Reviewed when Out of Compliance Ratings Are Given in Areas Marked by a "♦"

	PERMITS/ORDERS		SELF MONITORING PROGRAM		FACILITY OPERATIONS		EFFLUENT/DISPOSAL
IC	1.♦Permit	IC	3. Laboratory	IC	6. Facility Site Review	IC	9. ♦Effluent Quality
NA	2.♦Compliance Schedules	IC	4. Sampling	IC	7. Flow Measurement	IC	10.♦Effluent Disposal
		IC	5.♦Records & Reports	IC	8.♦Operation & Maintenance	IC	11. Residuals/Sludge
	13. Other:					IC	12. Groundwater

Facility and/or Order Compliance Status: ☒ In-Compliance ☐ Out-Of-Compliance ☐ Significant-Out-Of-Compliance

Recommended Actions:

Name(s) and Signature(s) of Inspector(s)	District Office/Phone Number	Date
Gary J. Hardie *Gary J. Hardie*	TBO/ (850) 488-3704	October 23, 2007
@ Signature of Reviewer Cliff McKeown *Cliff McKeown*	District Office/Phone Number TBO/ (850) 488-3704	Date October 23, 2007

Fill Out This Section For All Surface Water Discharger Inspections (CEI, CSI, CBI, PAI, XSI, RI, ASI, ANI)

Transaction Code		NPDES Number	YR/MO/DA	Insp Type	Inspector	Fac Type
N	5			1	2	3

ADDITIONAL NPDES COMMENTS

Inspection Type (Field 1) A:PAI, B:CBI, C:CEI, S:CSI, X:XSI, R:RI, \:ASI, =:ANI
Inspection Code (Field 2): S: State, J: Joint EPA/State-EPA Lead, T: Joint State/EPA-State Lead, L: Local Program
Facility Type (Field 3): 1: Municipal (Publicly Owned), 2: Industrial and Privately Owned Domestic, 3: Agricultural, 4: Federal
Every other field is self explanatory

Revised: October 19, 2006

INSPECTION COMMENTS

PERMITS/ORDERS

PERMIT: In Compliance

FDEP Permit FLA010065-003-DW2P/NR was issued July 29, 2005 and expires on July 28, 2010. At the time of inspection, a copy of the permit was onsite and available for review. **An application for renewal should be submitted at least 180 days prior to expiration of the current permit.**

COMPLIANCE SCHEDULES: Not Applicable

SELF MONITORING PROGRAM

LABORATORY: In Compliance

The pH and Total Residual Chlorine (TRC) samples are analyzed daily using a Hach Pocket Colorimeter II. The meter is calibrated using secondary standards as part of the DPD method for TRC analysis. The buffers (4 and 7) used for pH measurements were current. Calibration logs for both meters are kept onsite. The Water Spigot in Panama City conducts analysis on a biweekly basis for all other monitored parameters [Five (5) Day Carbonaceous Biological Oxygen Demand (CBOD5), Total Suspended Solids (TSS), and Fecal Coliform]. Review of the Monthly Discharge Monitoring Reports (DMR's) and daily operations log indicates that both the facility and contract laboratory have been utilizing approved methods.

SAMPLING: In Compliance

Grab samples for TRC and pH are collected daily for onsite analysis. Review of the daily operations log indicates that each sample is analyzed immediately (within fifteen minutes of collection). All other parameters are sampled on a biweekly basis for analysis by the Water Spigot in Panama City. Grab samples are collected for Fecal Coliform analysis. Samples for the other monitored parameters are compiled via eight (8) hour flow-proportioned composite using a Sigma 900 automatic sampler. Samples are then stored in a refrigerator prior to transport. The refrigerator is maintained at or near 4°C as verified by a certified laboratory thermometer. Inspection of Chain of Custody (COC) records indicates that the samples consistently have been analyzed within prescribed holding times.

RECORDS AND REPORTS: In Compliance

All Monthly DMR's, COC forms, Quarterly Groundwater Monitoring Reports (GMR's), Operations & Maintenance (O&M) Manual, and daily operational log were onsite and available for inspection. The calibration results of pH and TRC measurement devices are noted in the daily operations log. Records of annual calibration and service were available for the flow meter, backflow prevention devices and backup generator, as well as the Sequencing Batch Reactor (SBR) Monitoring System. Detailed general maintenance and supply records were onsite for review.

FACILITY OPERATIONS

FACILITY SITE REVIEW: In Compliance

An intact cyclone fence secures this facility. The grounds, including the spray fields, are mowed every two weeks. This facility consists of dual SBR's, preliminary treatment (screening and grit removal), dual sand filters, and disinfection. Materials collected from the influent screen and grit chamber are stored in a bin for transport and disposal at the Franklin County landfill. The storage building for the chlorine gas tanks features audio and visual alarms, leak detection, and adequate ventilation provided by fans near the floor. Emergency eyewash and breathing apparatus were readily accessible. The meter room features the flow meter and recorder, a Hach CL17 chlorine analyzer, a Wallace and Tiernan Acutec 35 gas detection system, and a Hach Inline Surface Scatter 6 turbidimeter. An onsite diesel generator (250 KW), capable of assuming all plant operations, is tested at least one hour each week under load. **Clay Moore of Moore's Backflow Service last certified the four onsite backflow prevention devices (RPZ) on August 22, 2006. Backflow prevention devices must be certified at least once annually.** The metal walkways and railings were secure and stable. There was no sign of rust or deterioration. Ponds for reject water appeared to be well maintained and in good condition.

FLOW MEASUREMENT: In Compliance

The primary flow measurement device is a 60° V-notch weir at the outflow from the dual CCC's. An American Sigma 950 ultrasonic flow meter with accompanying Honeywell Truline chart recorder serves as the secondary device. **The meter was last calibrated by Johnny Ray Fontenot of the Florida Rural Water Association on November 1, 2006. A review of the DMR's from October 2006 through August 2007 indicates that this 0.300 MGD permitted facility experienced an average monthly flow of 0.116 MGD with values ranging from 0.098 to 0.149 MGD.**

OPERATION AND MAINTENANCE: In Compliance

The facility is staffed by a Class C (or higher) operator at least three (3) hours per day a minimum of six (6) days each week. Copies of the Continuing Education Units (CEU's) for licensing were onsite and available for review. Dual SBR tanks operate at a capacity of 300,000 gallons per day. Portions of the former facility have been retrofitted for use in flow equalization as well as additional digester space. Each SBR tank completes its cycle within six (6) hours under normal conditions. At the time of this inspection, it appeared that all systems were operating in a satisfactory manner.

EFFLUENT/DISPOSAL

EFFLUENT QUALITY: In Compliance

Effluent travels from the dual SBR's to the Post Equalization Tank, after which it is sent through dual sand filters. From there, it is collected and pumped up to the dual Chlorine Contact Chambers (CCC's) located in the older portion of the facility. Chlorine gas is bubbled into the head of both CCC's, allowing sufficient time for disinfection as the effluent flows through the chambers. **On the day of this inspection, the effluent within the CCC's appeared clear and free of particulate matter. A daily sample yielded a pH of 7.4 S. U. and a TRC measurement of 0.7 mg/l. A review of the monthly Discharge Monitoring Reports (DMR's) from October 2006 through August 2007 indicates that**

samples from this facility exceeded only one monitored parameter. The 800/100 ml single sample maximum for Fecal Coliform was exceeded on one occasion (>1600 on August 27, 2007). However, all other samples from this facility were within the limits established in FDEP Permit FLA010065-003-DW2P/NR for all parameters.

DISPOSAL: In Compliance

The effluent is first piped to the polishing pond and then pumped to adjacent spray fields. The upgrades designated in FDEP Permit FLA010065-003-DW2P/NR for larger spray field piping and nozzles to prevent clogging have been satisfactorily completed. An additional eighteen (18) acres of spray field was put in service to accommodate increased flow. Spray fields appeared to have a consistent cover crop and were maintained by a landscaping contractor on a biweekly basis.

RESIDUALS MANAGEMENT: In Compliance

Sludge is currently pumped from the digester to eight onsite drying beds. Only four of the beds were in use at the time of inspection. Odor control and vector attraction appeared to be adequately maintained. After drying is completed, the residuals are stored in a waste management container onsite. Then, residuals are transported for disposal at the Steelfield Road Landfill in Franklin County in accordance with FDEP Permit FLA010065-003-DW2P/ NR. **Prior to this inspection, the most recent load (4.38 tons of dried residuals) was removed from the facility on July 6, 2007.**

GROUNDWATER: In Compliance

Inspection of the GMR's from the Third Quarter of 2006 through the Second Quarter of 2007 indicates that all eight (8) monitoring wells yielded results within the limits for all monitored parameters (Fecal Coliform, Chloride, pH, Total Nitrate Nitrogen, Total Sulfate, Total Dissolved Solids, Total Recoverable Arsenic, Total Recoverable Chromium, Total Recoverable Cadmium, and Total Recoverable Lead) as set forth in FDEP Permit FLA010065-003-DW2P/NR.

Florida Department of Environmental Protection

Northwest District Branch Office
2815 Remington Green Circle, Suite A
Tallahassee, Florida 32308-1513

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

September 27, 2007

SENT VIA E-MAIL
lanarkvillagews@gtcom.net

Ms. Barbara Rohrs, Chairperson
Lanark Village Water & Sewer District
Post Office Box 710
Lanark Village, Florida 32323

RE: Lanark Village WWTF
Franklin County, FLA010066-002-DW2P

Dear Ms. Rohrs:

On September 25, 2007, a Department representative conducted an inspection of the Lanark Village wastewater treatment facility. A copy of the inspection form is enclosed. We would like to thank Messrs. Wayne Conrad and Richard Marks for their cooperation during the routine inspection.

Please address the "Inspection Comments" noted on the enclosed inspection report form with regard to the Out of Compliance rating for Effluent Disposal. A written notification to the above address is required within 30 days of the receipt of this letter.

If you have any questions regarding the inspection, you may contact Gary Hardie at (850) 488-3704.

Sincerely,

G P Neubauer

G. P. Neubauer
Branch Office Manager

GPN/gh
Enclosure

cc: Wayne Conrad, Southern Water Services (wconrad@mchsi.com)
Jonathan May, FDEP (jonathan.may@dep.state.fl.us)
Greg Smith, FDEP (greg.smith@dep.state.fl.us)
Kacey J. Smith, FDEP (kacey.j.smith@dep.state.fl.us)

FIESTA ENTRY DATE
09/27/07

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WASTEWATER COMPLIANCE INSPECTION REPORT

FACILITY AND INSPECTION INFORMATION

@ = Optional

Name and Physical Location of Facility	WAFR ID:	County	Entry Date/Time
Lanark Village WWTP	FLA010066	Franklin	09/25/07 at 02:24 PM
Collins Street		Phone	Exit Date/Time
Lanark Village, Florida 32323		(850) 697-3953	09/25/07 at 03:05 PM

Name(s) of Field Representatives(s)	Title	@ Operator Certification #	Phone
Mr. Wayne Conrad, Southern Water Services	Owner	B-0003348	(850) 627-8884
Mr. Richard Marks, Southern Water Services	Operator	A-0004096	

Name and Address of Permittee or Designated Representative	Title	Phone	@ Operator Certification #
Mrs. Barbara Rohrs	Chairperson	(850) 697-3995	
Lanark Village Water & Sewer District			
Post Office Box 710			
Lanark Village, Florida 32323			

Inspection Type	C	E	I	Samples Taken(Y/N): No	@ Sample ID#:	Samples Split (Y/N): N
☒ Domestic	☐ Industrial			Were Photos Taken(Y/N): Yes	@ Log book Volume : II	@ Page 61-62

FACILITY COMPLIANCE AREAS EVALUATED

IC: In Compliance; NC: Out of Compliance; SC: Significant out of Compliance; NA: Not Applicable; NE or Blank: Not Evaluated
Significant Non-Compliance Criteria Should be Reviewed when Out of Compliance Ratings Are Given in Areas Marked by a "♦"

	PERMITS/ORDERS		SELF MONITORING PROGRAM		FACILITY OPERATIONS		EFFLUENT/DISPOSAL
IC	1.♦Permit	IC	3. Laboratory	IC	6. Facility Site Review	IC	9. ♦Effluent Quality
NA	2.♦Compliance Schedules	IC	4. Sampling	IC	7. Flow Measurement	NC	10.♦Effluent Disposal
		IC	5.♦Records & Reports	IC	8.♦Operation & Maintenance	NC	11. Residuals/Sludge
	13. Other:					IC	12. Groundwater

Facility and/or Order Compliance Status: ☐ In-Compliance ☒ Out-Of-Compliance ☐ Significant-Out-Of-Compliance

Recommended Actions:

Name(s) and Signature(s) of Inspector(s)	District Office/Phone Number	Date
Gary J. Hardie *Gary J. Hardie*	TBO/ (850) 488-3704	September 27, 2007
@ Signature of Reviewer G. P. Neubauer *G P Neubauer*	District Office/Phone Number TBO/ (850) 488-3704	Date September 27, 2007

Fill Out This Section For All Surface Water Discharger Inspections (CEI, CSI, CBI, PAI, XSI, RI, ASI, ANI)

Transaction Code	NPDES Number	YR/MO/DA	Insp Type	Inspector	Fac Type
N	5		1	2	3

Inspection Type (Field 1) A:PAI, B:CBI, C:CEI, S:CSI, X:XSI, R:RI, \:ASI, =:ANI
Inspection Code (Field 2): S: State, J: Joint EPA/State-EPA Lead, T: Joint State/EPA-State Lead, L: Local Program
Facility Type (Field 3): 1: Municipal (Publicly Owned), 2: Industrial and Privately Owned Domestic, 3: Agricultural, 4: Federal
Every other field is self explanatory

INSPECTION COMMENTS

PERMITS/ORDERS

PERMIT: In Compliance

FDEP Permit FLA010066-002-DW2P was issued on May 30, 2003 and expires on May 29, 2008. A copy of the permit was onsite and available for inspection. **An application for renewal should be submitted at least 180 days prior to expiration of the current permit.**

COMPLIANCE SCHEDULES: Not Applicable

SELF-MONITORING PROGRAM

LABORATORY: In Compliance

The Total Residual Chlorine (TRC) is analyzed daily using a Hach Pocket Colorimeter and powdered reagent packets as part of the DPD Colorimetric Method. Daily pH samples are analyzed with an Oakton pHTestr2 meter probe using premixed buffers of pH 4, 7, and 10. Calibration logs are maintained onsite for both instruments. The Water Spigot of Panama City conducts laboratory analyses of CBOD5, TSS, and Fecal Coliform on a biweekly basis. Based on a review of the daily operational logs and Chain of Custody (COC) forms, all parameters are analyzed using approved methods.

SAMPLING: In Compliance

All sampling is done from the area of the Chlorine Contact Chamber (CCC) upstream of the V-notch weir. Daily grab samples are collected for onsite analysis of pH and TRC. All other parameters (TSS, CBOD5, and Fecal Coliform) are sampled on a biweekly basis. For Fecal Coliform analysis, grab samples are collected every two weeks. Biweekly samples for CBOD5 and TSS are obtained manually from the CCC via an 8-hour flow proportioned composite method. Composite samples are stored in a large sterile container and refrigerated to maintain a temperature below 6°C, as verified by a calibrated NIST traceable thermometer. A review of the facility's COC forms indicates that all samples consistently have been analyzed within prescribed holding times.

RECORDS AND REPORTS: In Compliance

Monthly DMR's; COC forms; daily operational and calibration logs; equipment maintenance, calibration, and sludge hauling records; as well as the Operations & Maintenance (O&M) Manual are all maintained either onsite or at the office of Southern Water Services in Quincy, Florida.

FACILITY OPERATIONS

FACILITY SITE REVIEW: In Compliance

The facility is completely surrounded by a secure, barbed-wire fence. At the time of inspection, all grounds appeared well-maintained. An onsite Onan GenSet125 diesel powered generator is capable of

providing for all plant operations in case of power failure. In addition to being run under load on a weekly basis, the generator is fueled and tested annually by representatives from Caterpillar. Disinfection is accomplished by pumping chlorine gas into the CCC. The 150-pound chlorine cylinders are stored in a room located on the rear of the office building. The chlorine room features external power switches, ventilation fans near the floor, and a gas leak detector. Some of the treated effluent is utilized as reuse water for washing down facility components. **Prior to this inspection, the onsite RPZ backflow prevention device was last inspected and certified on August 19, 2007 by William Stephens with Southern Water Services.**

FLOW MEASUREMENT: In Compliance

The primary flow measurement device is a 90° V-notch weir located at the CCC outflow. A Stevens Total Flow Meter Model 61R with accompanying chart recorder serves as the secondary device. **A review of the DMR's from September 2006 through August 2007 indicates that this 0.110 MGD facility experienced a monthly average flow of 0.0369 MGD with values ranging from 0.022 to 0.046 MGD. Johnny Ray Fontenot with the Florida Rural Water Association last inspected and calibrated both devices on February 9, 2007.**

OPERATION AND MAINTENANCE: In Compliance

Class C (or higher) operators staff this facility a minimum of thirty (30) minutes per day at least six (6) days per week. The facility utilizes extended aeration activated sludge treatment with secondary clarification and disinfection of the effluent. Flow entering the facility is directed to the lift station for pumping up to the head works. Preliminary treatment is accomplished by a manually raked bar screen and subsequent grit chamber. All materials are stored in plastic containers and taken to the county landfill for disposal. Following preliminary treatment, the wastewater passes through a splitter box and flows by gravity-feed to the aeration system. There are three consecutive aeration basins. **At the time of inspection, aeration basin #2 had been taken out of service. Apparently, the motor was being serviced by Moore Electric of Quincy, Florida. The mixed liquor in each of the basins featured a deep, brown color and earthy odor. Aeration from the onsite blowers provided a nice, even roll and distribution. Following aeration, the mixed liquor passes through the rectangular clarifier. At the time of inspection, all chains and flights appeared to be functioning properly. During the monitored period, the treatment plant experienced two extreme upsets (excessive foaming and septic sludge). On both occasions, the mixed liquor was wasted through the digester and drying beds. Subsequently, a major source of inflow was discovered by plant staff. On June 6, 2007, a repair was made to an eight inch clay sewage collection pipe in the boat basin high tide ditch (located at Highway 98). Correction of this issue greatly reduced flow to the plant and allowed for the activated sludge to make a recovery.**

<u>EFFLUENT/DISPOSAL</u>

EFFLUENT QUALITY: In Compliance

At the time of the inspection, the effluent within the clarifier appeared mostly clear with minimal surface solids and debris. The effluent passes over a straight-edged metal weir and is collected in a metal trough. Chlorine tablets, which retard algal growth, are added to the post-clarifier effluent troughs. From the clarifier the effluent moves into the CCC, where it is retained for 30-60 minutes to

ensure adequate disinfection. **At the time of the inspection, the effluent within the CCC appeared a deep green tint due to presence of algae. A daily sample taken from the CCC appeared clear with no evidence of debris or solids. Onsite analysis yielded a pH of 6.7 and a TRC reading of 0.85 mg/l. A review of the Discharge Monitoring Reports (DMR's) from September 2006 through August 2007 indicated that this facility exceeded the 20.0 mg/l annual average limit for TSS in one month (February 2007). However, there were no reported violations of any other effluent parameter limits established in FDEP Permit FLA010066-002-DW2P.**

DISPOSAL: Out of Compliance

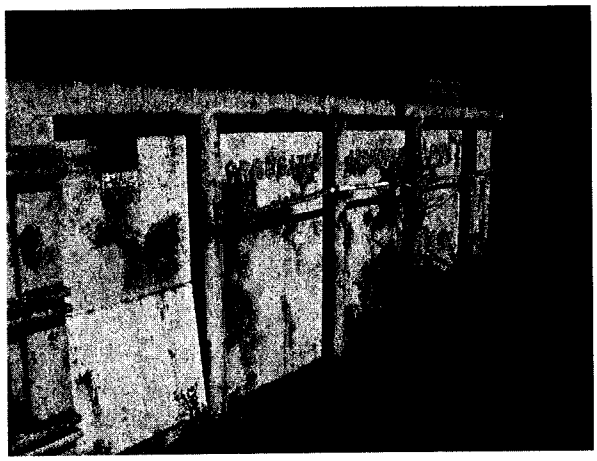
The treated effluent flows via gravity from the CCC to a lined holding pond adjacent to the facility. It is then pumped out for application to an 18-acre onsite spray field, as described in FDEP Permit FLA010066-002-DW2P. **At the time of inspection, there were approximately eighteen functional sprinkler heads available to serve all fourteen application zones. This situation does not appear to provide adequate distribution to use the entire disposal area. Facility staff has undertaken an ongoing effort to access more of the lines and sprinklers serving the spray field.**

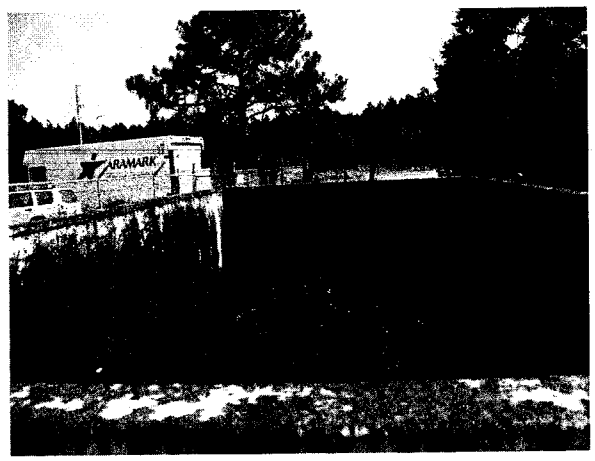
RESIDUALS MANAGEMENT: Out of Compliance

Residuals are dewatered in two (2) onsite drying beds. At the time of inspection, only one drying bed was being employed for residuals. All materials are stored in waste management dumpsters and transported to the Franklin County Landfill for composting, as described in FDEP Permit FLA010066-002-DW2P. The most recent load of dried sludge (5.18 tons) was hauled on June 9, 2006. **Minimal wasting has occurred onsite as a result of the previously discussed major plant upset. However, there are concerns regarding the large waste disposal bin used to store dried residuals. At the time of inspection, it appeared that the bin had substantial rust deterioration. It is suggested that waste management replace the current bin. In addition, the current container features signs stating "Corrugated Cardboard Only." It is suggested that signs indicating residuals storage be placed on the new container.**

GROUNDWATER: In Compliance

From a review of GMRs from the third quarter of 2006 through the second quarter of 2007 indicates that samples from monitored wells have consistently exceeded permitted limits for Total Dissolved Solids or TDS (500 mg/l), Chloride (250 mg/l), and Conductance (1275 μmhos/cm). There were also two instances of well samples with Sulfate above the permitted limit (250 mg/l) during the monitored period. Along with several instances of high sodium, these results appear to be consistent with salt water intrusion.




ARAMARK

Florida Department of Environmental Protection

Tallahassee Branch Office
630-3 Capital Circle Northeast
Tallahassee, Florida 32301

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

August 20, 2007

Mr. Thomas E. Duggar
Villas of St. George
1391 Timberland Road, Suite 206
Tallahassee, Florida 32312

RE: Villas of St. George WWTF
Franklin County, FDEP Permit FLA010072-001-DW4P

Dear Mr. Duggar:

On March 28, 2007, a Department representative conducted an inspection of the Villas of St. George wastewater treatment facility. A copy of the inspection form is enclosed. We would like to thank Messrs. Wayne Conrad and Charles Painter for their cooperation during the routine inspection.

At the time of inspection, the facility appeared to be operating in a satisfactory manner.

If you have any questions regarding the inspection, you may contact Gary Hardie at (850) 488-3704.

Sincerely,

G. P. Neubauer
Branch Office Manager

GPN/gh
Enclosure

cc: Wayne Conrad, Southern Water Services (wconrad@mchsi.com)
Jonathan May, FDEP (jonathan.may@dep.state.fl.us)
Greg Smith, FDEP (greg.smith@dep.state.fl.us)
Charles Painter, Operator (cbelwwtp@gtcom.net)

FIESTA ENTRY DATE
08/20/07

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

WASTEWATER COMPLIANCE INSPECTION REPORT

FACILITY AND INSPECTION INFORMATION

Name and Physical Location of Facility	WAFR ID:	County	Entry Date/Time
Villas of St. George WWTP	FLA010072	Franklin	03/28/07 at 12:13 PM
200 West Gorrie Drive		Phone	@ Exit Date/Time
St. George Island, Florida 32328		(850) 927-2900	03/28/07 at 01:01 PM

Name(s) of Field Representatives(s)	Title	@ Operator Certification #	Phone
Mr. Wayne Conrad	Owner, Southern Water Services	B-0003348	(850) 627-8884
Mr. Charles Painter	Operator		(850) 639-2493

Name and Address of Permittee or Designated Representative	Title	Phone
Mr. Thomas E. Duggar		(850) 670-2585
Villas of St. George		
1391 Timberland Road, Suite 206		
Tallahassee, Florida 32312		

Inspection Type	C	E	I	Samples Taken(Y/N): No	@ Sample ID#:	Samples Split (Y/N): N
☒ Domestic	☐ Industrial			Were Photos Taken(Y/N): Y	@ Log book Volume : II	@ Page 13-14

FACILITY COMPLIANCE AREAS EVALUATED

IC: In Compliance; NC: Out of Compliance; SC: Significant out of Compliance; NA: Not Applicable; NE or Blank: Not Evaluated
Significant Non-Compliance Criteria Should be Reviewed when Out of Compliance Ratings Are Given in Areas Marked by a "♦"

	PERMITS/ORDERS		SELF MONITORING PROGRAM		FACILITY OPERATIONS		EFFLUENT/DISPOSAL
IC	1.♦Permit	IC	3. Laboratory	IC	6. Facility Site Review	IC	9. ♦Effluent Quality
NA	2.♦Compliance Schedules	IC	4. Sampling	IC	7. Flow Measurement	IC	10.♦Effluent Disposal
		IC	5.♦Records & Reports	IC	8.♦Operation & Maintenance	NE	11. Residuals/Sludge
	13. Other:					IC	12. Groundwater

Facility and/or Order Compliance Status: ☒ In-Compliance ☐ Out-Of-Compliance ☐ Significant-Out-Of-Compliance

Recommended Actions:

Name(s) and Signature(s) of Inspector(s)	District Office/Phone Number	Date
Gary J. Hardie *Gary J Hardie*	TBO/ (850) 488-3704	August 20, 2007
@ Signature of Reviewer G. P. Neubauer *G P Neubauer*	TBO/ (850) 488-3704	August 20, 2007

Fill Out This Section For All Surface Water Discharger Inspections (CEI, CSI, CBI, PAI, XSI, RI, ASI, ANI)

Transaction Code	NPDES Number	YR/MO/DA	Insp Type	Inspector	Fac Type
N	5		1	2	3

ADDITIONAL NPDES COMMENTS

Inspection Type (Field 1) A:PAI, B:CBI, C:CEI, S:CSI, X:XSI, R:RI, \:ASI, =:ANI
Inspection Code (Field 2): S: State, J: Joint EPA/State-EPA Lead, T: Joint State/EPA-State Lead, L: Local Program
Facility Type (Field 3): 1: Municipal (Publicly Owned), 2: Industrial and Privately Owned Domestic, 3: Agricultural, 4: Federal
Every other field is self explanatory

Revised: October 19, 2006

INSPECTION COMMENTS

PERMITS/ORDERS

PERMIT: In Compliance

FDEP Permit FLA010072-002-DW4P was issued on June 13, 2003 and expires on June 12, 2008. At the time of the inspection, a copy of the permit was onsite and available for inspection. **An application for renewal should be submitted at least 180 days prior to expiration of the current permit.**

COMPLIANCE SCHEDULES: Not Applicable

SELF-MONITORING PROGRAM

LABORATORY: In Compliance

The Total Residual Chlorine (TRC) is analyzed daily using a Hach Pocket Colorimeter and powdered reagent packets as part of the DPD Colorimetric Method. Daily sampling of pH is analyzed with an Oakton pH/CON10 Series meter using premixed pH 4, 7, and 10 buffers. Previously, Bay Environmental Laboratory of Wewahitchka, Florida conducted laboratory analysis of samples for Carbonaceous Biological Oxygen Demand (CBOD5), Total Suspended Solids (TSS), Total Nitrate-Nitrogen, and Fecal Coliform. The Water Spigot of Panama City, Florida currently conducts monthly analysis of all evaluated parameters. Based on a review of the daily operational logs and Chain of Custody (COC) forms, all samples are analyzed according to approved methods.

SAMPLING: In Compliance

Daily samples are collected for onsite analysis of pH and TRC. All other parameters (TSS, CBOD5, Total Nitrate-Nitrogen, and Fecal Coliform) are sampled on a monthly basis. All sampling is done from the Chlorine Contact Chamber (CCC) by grab method. Based on a review of the daily operating logs and COC forms, all parameters consistently have been analyzed within prescribed holding times.

RECORDS AND REPORTS: In Compliance

Monthly Discharge Monitoring Reports (DMR's); quarterly Groundwater Monitoring Reports (GMR's); COC forms; daily operational and calibration logs; equipment maintenance, calibration, and sludge hauling records; as well as the Operations & Maintenance (O&M) Manual are maintained either at the facility or the office of Southern Water Services in Quincy, Florida.

FACILITY OPERATIONS

FACILITY SITE REVIEW: In Compliance

The facility is located across the street from the Villas of St. George condominiums. It is completely surrounded by a secure wooden fence featuring a prominently displayed "No Trespassing" sign. The grounds within appeared well-maintained. There is a working diesel generator onsite to provide electricity in the event of power failure. Effluent disinfection is accomplished by dispensing Aquaguard Chlorinating Solution (10.5% sodium hypochlorite) into the CCC at a constant rate using

an electric pump. An RPZ backflow prevention device located onsite was last inspected and certified by Hank Garrett with Southern Water Services on February 17, 2006.

FLOW MEASUREMENT: In Compliance

Flow from this facility is determined by the daily volume of sewage pumped into the facility from the onsite lift station. The lift station pumps were last calibrated and certified as an accurate measurement of flow by Johnny Ray Fontenot of the Florida Rural Water Association on February 9, 2007. **A review of the DMR's from February 2006 through January 2007 indicates that this 0.0095 MGD permitted facility maintained a monthly average flow of 0.003 MGD with values ranging from 0.001 to 0.010 MGD.**

OPERATION AND MAINTENANCE: In Compliance

The facility is staffed a minimum of thirty (30) minutes per day three (3) days each week by Class D (or higher) operators. A grease trap has been installed to improve process control. Preliminary treatment is through a manually raked bar screen. All rakings and skimmed materials are kept in a plastic container prior to disposal at the county landfill. The facility utilizes extended aeration activated sludge treatment featuring aeration, nitrification, secondary clarification, and disinfection. At the time of the inspection, members of plant staff were attempting to rectify difficulties with one onsite tank. The operator informed me that the partitioned tank which houses the digester and CCC had been leaking. Apparently, the tank was drained and patched the previous week. However, additional problems were discovered after the tank was refilled. The tank was scheduled to be re-patched on March 29, 2007. All other components of the treatment works appeared to be functioning as designed.

EFFLUENT/DISPOSAL

EFFLUENT: In Compliance

At the time of the inspection, the effluent within the clarifier was nearly clear with a slight soapy residue on the surface. The effluent passes over a straight-edged metal weir and into a metal trough. Chlorine tablets are added to the weir troughs to inhibit algal growth. Effluent within the post-clarifier trough appeared clear and free of any visible debris. Chlorine solution is added to the effluent to allow for twenty (20) to thirty (30) minutes contact time ensuring adequate disinfection. At the time of the inspection, the effluent within the CCC appeared cloudy due to the presence of some suspended solids. It also featured a slight green tint due to the presence of algae on the tank walls. **The most recent daily sample yielded a pH value of 7.5 and a TRC value of 2.2 mg/l. A review of the DMR's from February 2006 through January 2007 indicates that this facility did not report any violations of parameter limits established in FDEP Permit FLA010072-002-DW4P.**

DISPOSAL: In Compliance

The effluent is discharged to an onsite 5,132 ft^2 dual-celled subsurface absorption bed drain field system with a 15,000 gallon per day capacity, as described in FDEP Permit FLA010072-002-DW4P.

RESIDUALS MANAGEMENT: Not Evaluated

A Consent Order with an associated schedule for compliance is currently being drafted with regard to residuals management concerns addressed in Warning Letter NW DW 19-1522. If you have further questions, feel free to contact our District Office at (850) 595-8300.

GROUNDWATER: In Compliance

FDEP Permit FLA010072-002-DW4P required the installation of a single monitoring well (MWC-01) to be sampled and analyzed on a quarterly basis. A review of the GMR's from the second quarter of 2006 through the first quarter of 2007 indicates that samples from the well were within permitted limits during the monitored period.

August 20, 2007

Mr. Thomas E. Duggar
Villas of St. George
1391 Timberland Road, Suite 206
Tallahassee, Florida 32312

RE: Villas of St. George WWTF
Franklin County, FDEP Permit FLA010072-001-DW4P

Dear Mr. Duggar:

On March 28, 2007, a Department representative conducted an inspection of the Villas of St. George wastewater treatment facility. A copy of the inspection form is enclosed. We would like to thank Messrs. Wayne Conrad and Charles Painter for their cooperation during the routine inspection.

At the time of inspection, the facility appeared to be operating in a satisfactory manner.

If you have any questions regarding the inspection, you may contact Gary Hardie at (850) 488-3704.

Sincerely,

G. P. Neubauer
Branch Office Manager

GPN/gh
Enclosure

cc: Wayne Conrad, Southern Water Services (wconrad@mchsi.com)
Jonathan May, FDEP (jonathan.may@dep.state.fl.us)
Greg Smith, FDEP (greg.smith@dep.state.fl.us)
Charles Painter, Operator (cbelwwtp@gtcom.net)

Florida Department of
Environmental Protection
Tallahassee Branch Office
2815 Remington Green Circle, Suite A
Tallahassee, Florida 32308-1513

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

September 26, 2007

Sent via email
(pointwater@aol.com)

Mr. Tom Van der Plaats
Post Office Box 155
Panacea, Florida 32346

Dear Mr. Van der Plaats:

A sanitary survey of the Alligator Point Water Resource District Water System (PWS ID No. 1190013) was completed on September 11, 2007, by Cliff McKeown, Engineering Specialist. Your assistance during the inspection was greatly appreciated.

The purpose of this survey is to evaluate the capability of the water system to continually produce safe drinking water. Public water systems in this state are regulated by the Department under the Florida Safe Drinking Water Act as promulgated by Florida Administrative Code Chapters 62-550, 555 and 560. The Department determines compliance with these regulations.

Minor deficiencies were identified during the survey as described in the enclosed *Schedule of Deficiencies*. Other recommendations are enclosed within the report which do not require a written response unless otherwise stated.

We would appreciate a written response to this report within 30 days of the date of this letter advising us of the actions and time frame you will take to correct the listing noted in the Schedule of Deficiencies. Please address the response to me.

If you have any questions regarding the report and/or deficiencies, please contact Cliff McKeown at (850) 488-3704 (or e-mail cliff.mckeown@dep.state.fl.us.)

Sincerely,

G P Neubauer

G. P. Neubauer
Branch Office Manager

GPN:cm
Enclosures
Sanitary Survey Report
Schedule of Deficiencies
System Map(s)

cc: Franklin County Department of Health (jason_flowersi@doh.state.fl.us)
John Pope, Potable Water Section Supervisor (john.pope@dep.state.fl.us
Angela Chellette, NWFWMD (Angela.Chelette@nwfwmd.state.fl.us)
Cliff McKeown (cliff.mckeown@dep.state.fl.us)

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

SANITARY SURVEY REPORT

COMMUNITY SYSTEMS

SYSTEM AND OWNER INFORMATION

System Alligator Pt Water Resource District **County** Franklin **PWS ID #** 1190013

Address Post Office Box 155 **City** Panacea State/Zip Florida 32346

Phone (850) 349-2274 **Fax** **E-mail** pointwater@aol.com

Owner Tom Van der Plaats, Chairman **Phone** (850) 349-2274

Address Post Office Box 155 , Panacea, Florida 32346

INSPECTION AND CONTACT INFORMATION

Date of this inspection September 11, 2007 Date of last inspection March 25-26, 2004

DEP Representative(s) Cliff McKeown

Person(s) Contacted Wayne Conrad

Emergency Number (850) 570-4628 Cell (850) 570-4628 Pager (850) 551-4124 Other (850)

CERTIFIED OPERATORS AND CERTIFICATION NUMBER

Wayne Conrad B-2713

Richard Marks A-4171

DIRECTIONS TO PLANT OR OFFICE (provide general directions to the office and/or plant)

SERVICE AREA

Service Area Characteristics Residential and Vacation homes

Population Served (1) Basis 2.3/conn.

Service Connections (1) % Metered 100

Design Capacity (gallons) 489,600

Design Capacity without best well 394,560

Storage Capacity 468,000 Ave. Day 86,743

Max. Day (GPD) 334,074 % Design Capacity 68

25% Max. Day 83,519 % Storage Capacity 18

EMERGENCY MEDIA CONTACT NUMBERS

	NAME	PHONE NUMBER
Television	WCTV	893-6666
Radio FM	WTXL	893-1313
Radio FM	Cumulus	201-3000
Newspaper	Tall. Democrat	599-2151

STANDBY POWER REQUIREMENTS

Emergency Preparedness Plan On file: ☒ Yes ☐ No ☐ Not Required

Does plan include the following :

☒ Communication Chart ☒ Written Agreements ☒ Disaster Plan

☒ Standby Power Info ☒ Inventories ☐ Other

Ave. Day Percentage of Auxiliary Supply 20.3%

Auxiliary equipment operated at least monthly? ☒ Yes ☐ No

Any Interconnects ☐ Yes ☒ No

If yes, which systems:

Comments:

PERMANENT SOURCES OF RAW WATER:

☒ Ground* How Many Wells 6

☐ Surface** Source

☐ Purchased*** PWS No.

(1) See comments at population graph

TREATMENT IN USE AT THIS PLANT: (CHECK ALL THAT APPLY)

Number of Plants 2

☐ Aeration	☐ E.D.	☐ Iron Removal	☐ pH Adjustment	☒ Chlorination
☐ Filtration	☐ Lime Softening	☐ T&O Control	☐ Chlorination-Pre	☐ Filt. Hi-Rate
☐ Recarbonation	☐ Settling	☐ Chlorination-Post	☐ Fluoridation	☐ Reverse Osmosis
☐ Zeolite Softener	☐ Coagulation	☒ Poly-phosphate	☐ Aqua Mag	☐ Other-Specify

Any additional treatment is needed? For control of what deficiencies?

OPERATOR STAFFING REQUIREMENTS

Number of Licensed Operators 2 Staffing comply with FAC 62-699 ? ☒ Yes ☐ No Visits per week: 6

Alligator Pt Water Resource District
Page Two A OLD WELL FIELD

PWS I.D. No. 1190013
Date of Survey: September 11, 2007

SOURCE: WELL AND PUMP INFORMATION

	Well Number (or name)→	1	4	5	2R
	Street location of well (street name)	None	None	None	None
	Year Drilled	1966	1978	1978	2006
W	Depth Drilled (feet)	130	130	118	127
E	Drilling Method	Unknown	Cable-tool	Cable-tool	Rotary
L	Length, Outside Casing (feet)	73	96	85	80
L	Diameter, Outside Casing (inches)	6	6	6	6
	Material, Outside Casing	BI	BI	BI	BI
D	Type of Strainer	None	None	None	None
A	Depth to Top of Strainer	N/A	N/A	N/A	N/A
T	Type of Grout	Neat Cement	Neat Cement	Neat Cement	Neat Cement
A	Depth to Static Water Level (feet)	23	25	25	
	Normal Suction Lift (working level-ft)	40	Unknown	60	
P	Pump Type	Submersible	Submersible	Submersible	Submersible
U	Horse Power	5 hp	5 hp	5 hp	5 hp
M	Normal Yield, GPM / Test Yield (GPM)	68	57	68	55
P	Capacity(GPM)	66	66	63	65
R	Protection From Surface Water	Yes	Yes	Yes	Yes
O	Is Inundation of Well Possible?	No	No	No	No
U	Well Ever Been Contaminated?	No	No	No	No
T	Check Valve Present in Line?	Yes	Yes	Yes	Yes
I	Proper Venting?	Yes	Yes	Yes	Yes
N	Date meter was last calibrated?	6-21-07	6-21-07	6-21-07	6-21-07
E	Meter diameter	2"	2"	2"	2"
	Accuracy (+-)	+3.5	+2.0	+2.0	-2.6
A	Auxiliary Capability (if yes, list type)	Diesel	Diesel	Diesel	Diesel
U	Manual or Automatic?	Auto	Auto	Auto	Auto
X	Capacity (GPM)	63	66	63	65
G	Florida Unique ID# (GPS well tag)	AAA5372	AAA5375	AAA5376	
P	GPS latitude N (accuracy≈1m)	29°55'35.667"	29°55'41.272"	29°55'41.540"	
S	GPS longitude W (accuracy≈1m)	84°22'38.003"	84°23'00.771"	84°23'07.059"	

Comments:

Alligator Pt Water Resource District
Page Two B NEW WELL FIELD

PWS I.D. No. 1190013
Date of Survey: September 11, 2007

SOURCE: WELL AND PUMP INFORMATION

	Well Number (or name)→	6	7	9	
	Street location of well (street name)	None	None	None	
	Year Drilled	2001	2001	2001	
W	Depth Drilled (feet)	130	130	130	
E	Drilling Method	Rotary	Rotary	Rotary	
L	Length, Outside Casing (feet)	97	97	85	
L	Diameter, Outside Casing (inches)	8	8	8	
	Material, Outside Casing	BI	BI	BI	
D	Type of Strainer	SS	SS		
A	Depth to Top of Strainer	64	64		
T	Type of Grout	Neat Cement	Neat Cement	Neat Cement	
A	Depth to Static Water Level (feet)	26.5	30	17	
	Normal Suction Lift (working level-ft)	40	37.3		
P	Pump Type	Submersible	Submersible		
U	Horse Power	10	10		
M	Normal Yield, GPM / Test Yield (GPM)	60	40		
P	Capacity(GPM)	100	150		
R	Protection From Surface Water	Yes	Yes	No	
O	Is Inundation of Well Possible?	No	No	No	
U	Well Ever Been Contaminated?	No	No	No	
T	Check Valve Present in Line?	Yes	Yes		
I	Proper Venting?	Yes	Yes		
N	Date meter was last calibrated?	6-21-07	6-21-07		
E	Meter diameter	4"	4"		
	Accuracy (+-)	-3.9	-25.5		
A	Auxiliary Capability (if yes, list type)	Diesel	None		
U	Manual or Automatic?	Auto			
X	Capacity (GPM)	40			
G	Florida Unique ID# (GPS well tag)	AAD9156	AAD9157		
P	GPS latitude N (accuracy≈1m)	29°56'40.740"	29°56'40.812"		
S	GPS longitude W (accuracy≈1m)	84°23'51.396"	84°24'10.836"		

Comments: R&R meter at Well #7

PWS I.D. No. 1190013
Date of Survey: September 11, 2007

• CHLORINATOR

PLANT NUMBER (OR NAME)→	1		3	comment
Type of chlorination (if hypo list strength)	Gas		Gas	
Condition of Chlorination Equipment	Good		Good	
Capacity (PPD, GPD)	15		10	
Chlorine Feed Rate (PPD, GPD)	3		2	
Max Day Chlorine Usage (GPD)	<3		<2	
Low Flow Switch?	N/A		N/A	
Adequate Housing and Security?	Yes		Yes	
Associated Well(s) (if any)	1,4,5,2R		6 & 7	
Auxiliary Power Capability?	Yes		Yes (6)	
O & M Log/Manual Onsite?	Yes		Yes	
Chlorine Residual / pH	0.6		0.5	
Loss of Vacuum Alarm Telemetry?	No		No	
Loss of Chlorine Alarm?	No		No	
G Auto Switchover	Yes		Yes	
Dual System	Yes		Yes	
Evidence of Leaks	No		No	
A Air-Pack Respirator Adequate?	Yes		Yes	
Ammonia Smells Fresh	Yes		Yes	
Chained Cylinders	Yes		Yes	
S Fitted Wrench	Yes		Yes	
Proper Ventilation	Yes		Yes	
Scale Condition	out		out	

Spare Parts/Backup Machine Operative? ☒Yes ☐No ☐No Spare Parts Retained/Required More capacity needed? ☐Yes ☒No

Comments: Loss of chlorine alarms are present however there is no telemetry to forward alarm. Currently this project is being undertaken by Bob Williams.

PWS I.D. No. 1190013
Date of Survey: September 11, 2007

AERATOR

Type of Aerator _____

Tray Area or Weir Length _____

Condition of Screens _____

Bloodworms _____ Condition of aerator _____

Adequate for Fe, H2S control _____

COAGULATION

Chemical used _____
Purpose _____

Blanket visible _____ Flocculation good or poor _____
Settling good? _____ Carryover _____

LIME SOFTENING

Quicklime or hydrated _____

Name of unit _____

Size and type _____

Any auxiliary chemicals used _____

Points of application (in unit) _____

Nature and abundance of flux _____

Appearance of sludge blanket _____

Is settling good? _____ Excessive carryover _____

Any filter cementation _____

Effluent stability _____

Turbidity in clearwell _____ Secondary precipitation _____

Recarbonation type _____

Sludge recirculation Used _____

FLUORIDATION

Chemical Used Is Dilution _____

Strength if Acid _____ Used(acid) _____

Corrosion Noted Feeder _____

Gelling or Plugging _____

Make and Model _____

Split Sample Agreement _____

Sufficient Analysis _____

Feeder Condition _____

STABILIZATION

Feed Rate 3 gpd
Normal Dosage 1.0 mg/l
Chemical(s) used Aqua Mag Need to check weekly

FILTERS & FILTRATION

Type of filters

Size and number

Length of filter runs

Can you see filter media? Clean after backwash?

Are mudballs visible? Binding?

What is the normal filter rate

What is the usual backwash rate

Capacity of filters Filters overloaded?

Loss in head gauge present?

At what head loss is BW done?

Cracks and channeling? Cementation ever occurred?

Where in relation to filtration is stabilization done?

If high rate, what is turbidity at interface Range of turbidity in effluent

Can you observe algae in filters?

Distance from top of media to trough overflow

REVERSE OSMOSIS

Make and type of units _____

Pressure required _____

Auxiliary chemicals _____

Proportion of waste used to product streams _____

Quality of effluent _____ Stabilization _____

Type of Pre-treatment _____ Booster pump _____

Type of membranes _____

ZEOLITE SOFTENING

Unit mfg. & model

Resin capacity Disinfection of beds

Grade of salt for regen.

Stability of effluent Resin prevented from escaping?

PWS I.D. No. 1190013
Date of Survey: September 11, 2007

PUMPS AND PUMP CONTROLS

PUMP CATEGORY								
PUMP NUMBER→	1	2						
PUMP TYPE	Cent.	Cent.						
MOTOR HP	15 hp	15 hp						
DATE INSTALLED	5/82	5/82						
CAPACITY (GPM)	300	300						
AUXILIARY CAPACITY?	300	300						
PROPER SECURITY?	Yes	Yes						
CONDITION OF PUMP	Out	Good						
MAINT. SCHEDULE	Weekly	weekly						
DATE LAST SERVICED		9-10-07						

STORAGE FACILITIES:

TANK NUMBER→	1	2	3
TYPE (GROUND, ELEVATED, HYPO)	Elevated	Ground	Ground
YEAR OF CONSTRUCTION	1967	1967	1999
CAPACITY (GALLONS)	50,000	200,000	218,000
MATERIAL	Steel	Steel	Glass/Alum.
GRAVITY DRAIN CAPACITY/DIAMETER	None	None	Yes
OVERFLOW STRUCTURES PROPER?	To GST's	Terminates to high	Terminates to high
BYPASS CAPACITY	100%	100%	100%
COVERED/SCREENED OPENINGS	Yes	Yes	Yes
PRESSURE GAUGE	None	None	None
ON/OFF PRESSURE (PSI)	N/A	N/A	N/A
HGT. TO BOTTOM OF EL. TANK (FT)	100	N/A	N/A
HGT. TO MAX. WTR. LEVEL(FT)	120	N/A	33.01
DATE OF LAST ANNUAL INSPECTION	2007	2007	2006
YEAR OF LAST 5-YEAR INSPECTION	2008 scheduled	2007	2006
YEAR OF LAST WASHOUT	2008scheduled	2007	2006

Does system provide fire protection? ☒ Yes ☐ No Security Adequate? ☒ Yes ☐ No Low Level Alarm? ☐ Yes ☒ No
Does current storage capacity comply with requirements in FAC 62-555? ☒ Yes ☐ No

COMMENTS:
Overflow terminates near top of tank

PWS I.D. No. 1190013
Date of Survey: September 11, 2007

DISTRIBUTION SYSTEM

Material of mains? GIP, PVC CIP System looped? Yes How many hydrants? 66
Any fire hydrants < 6" lines? ☒Yes ☐No ☐Unknown Max. pipe diameter 12" Min. pipe diameter 1"
General operation pressure 60 psi Lowest pressures 60 psi Location of low pressure Base of tank
Number of dead ends 12 How many without flush hydrants? 2 Flushing program? Continuous
Number of line valves 57 How often exercised infrequently Properly Mapped? Yes Properly Marked? Yes
System Maps Adequate? Yes Any uncleared permits? 2 Any uncleared and in use? No
Percent water loss _____ Does the system have reuse? No Comments _____

CROSS CONNECTION CONTROL

Cross Connection Control Program Meet Requirements? ☒Yes ☐No Comment: No bfp on hydrant meters
Testing Frequency? Annually Tracking: ☒Hard Copy ☐CPU # of BFDs: 48 Hydrant Meters☐ Lift Stations☐ WWTP☐
Date of Last Audit (commercial or residential): ongoing Name of Certified BFD Tester: Commercial testers

Chlorine & pH	Remote 1	Remote 2	Remote 3	Remote 4
Chlorine Residual	0.2	0.36		
pH				
Location	Bald Point	West end		

COMPLIANCE MONITORING

Compliance Schedule: The following parameters are due during the year shown.

Inorganics	2009	Secondaries	2009	VOCs	2009	Radiologicals	2009
SOCs	2009	Asbestos	2012	TTHMs/HAA5	2007	Pb & Cu	2008

System out of compliance with any of the above parameters? None

Testing Equipment & Reagents ☐Adequate ☐Inadequate Comment: Obtain test kit for phosphates
Bacteriological Sampling Plan: ☒Adequate ☐Inadequate Comment: _____
Disinfection Byproducts Plan: ☒Adequate ☐Inadequate Comment: _____

MANAGERIAL/FINANCIAL

How is the system structured? (cooperative) ☒ Yes ☐ No Does the system follow a budget? ☒ Yes ☐ No
Preventative Maintenance Program in place? ☒ Yes ☐ No Is adequate training provided to water system personnel? ☒ Yes ☐ No
Comment: _____

In the space below, give a rough sketch of the flow diagram of the plant, showing all important parts of the plant (not to scale):

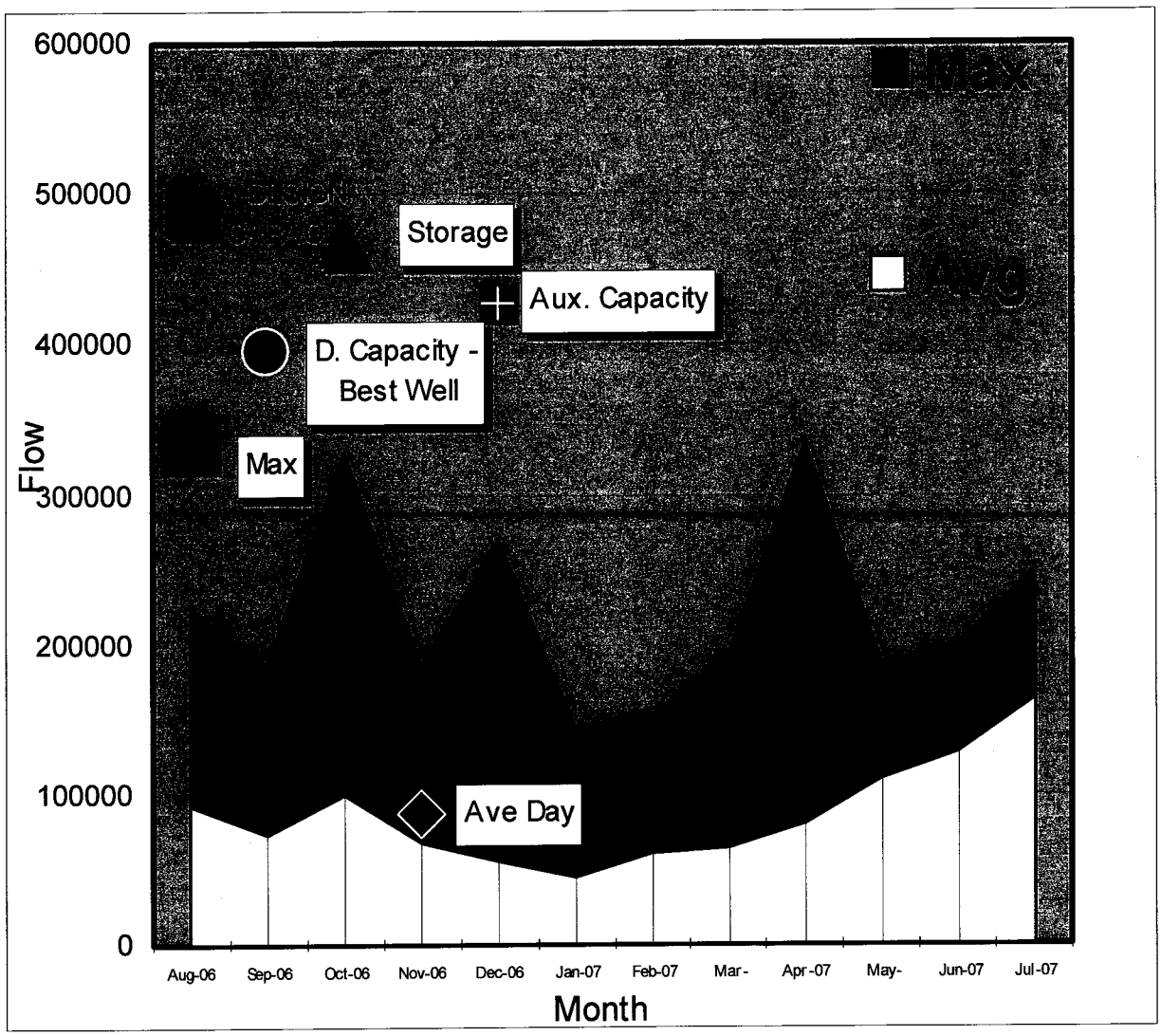
INSPECTOR'S SIGNATURE Cboff McKenzie TITLE ENGINEER SPECIALIST DATE: September 26, 2007

APPROVED BY G P Nuebauer TITLE BRANCH MANAGER DATE: September 26, 2007
G. P. NUEBAUER

Flow and Capacity Graphs

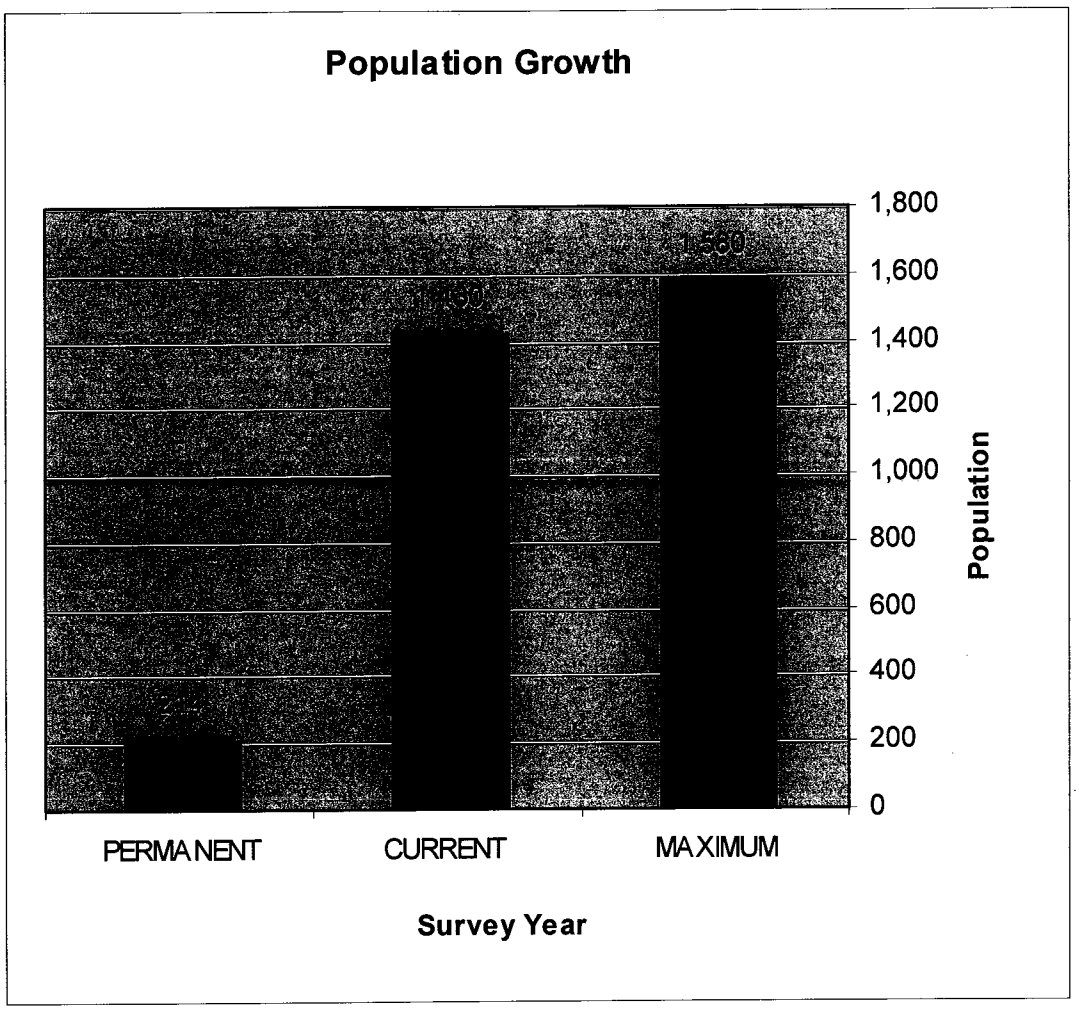
ALLIGATOR POINT WATER SYSTEM

Survey of September 11, 2007



Graph above is based on corrected MOR submitted for July 2007. Overall capacity appears adequate, however short term peaks could continue to be a problem meeting demands on holiday weekends

ALLIGATOR POINT WATER SYSTEM
Survey of September 11, 2007

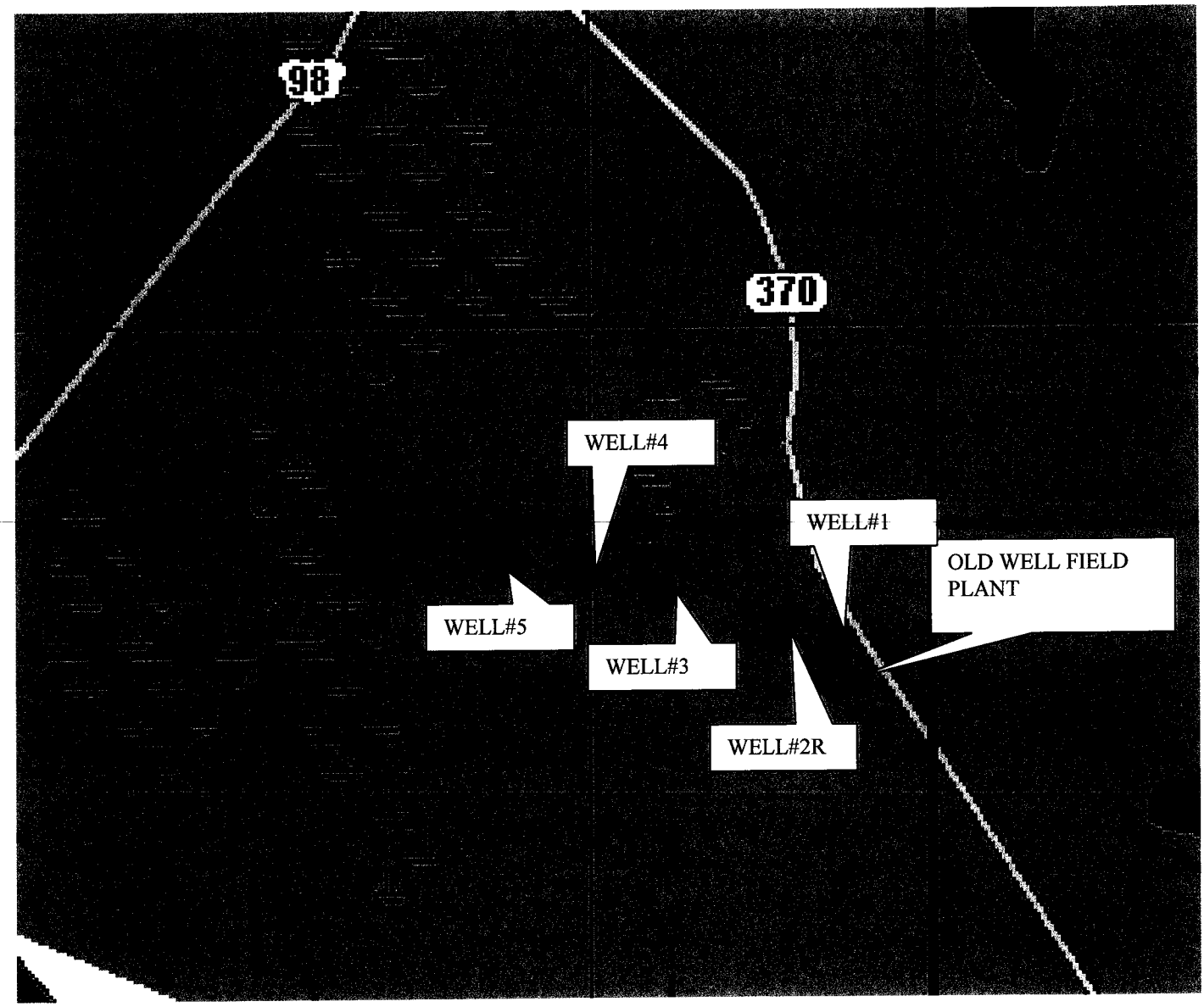


Above population estimate of 2.3 persons per household is based on data provided by US Census Bureau. 93 connections are served year around (shown as PERMANENT), an additional 529 connections are metered and may use water at anytime throughout the year (shown as CURRENT). An additional 65 connections are under construction (shown as MAXIMUM). This graph illustrates the wide ranges of demands the system could experience due to temporary population increases.

Geographical Information Old Well Field

ALLIGATOR POINT WATER SYSTEM

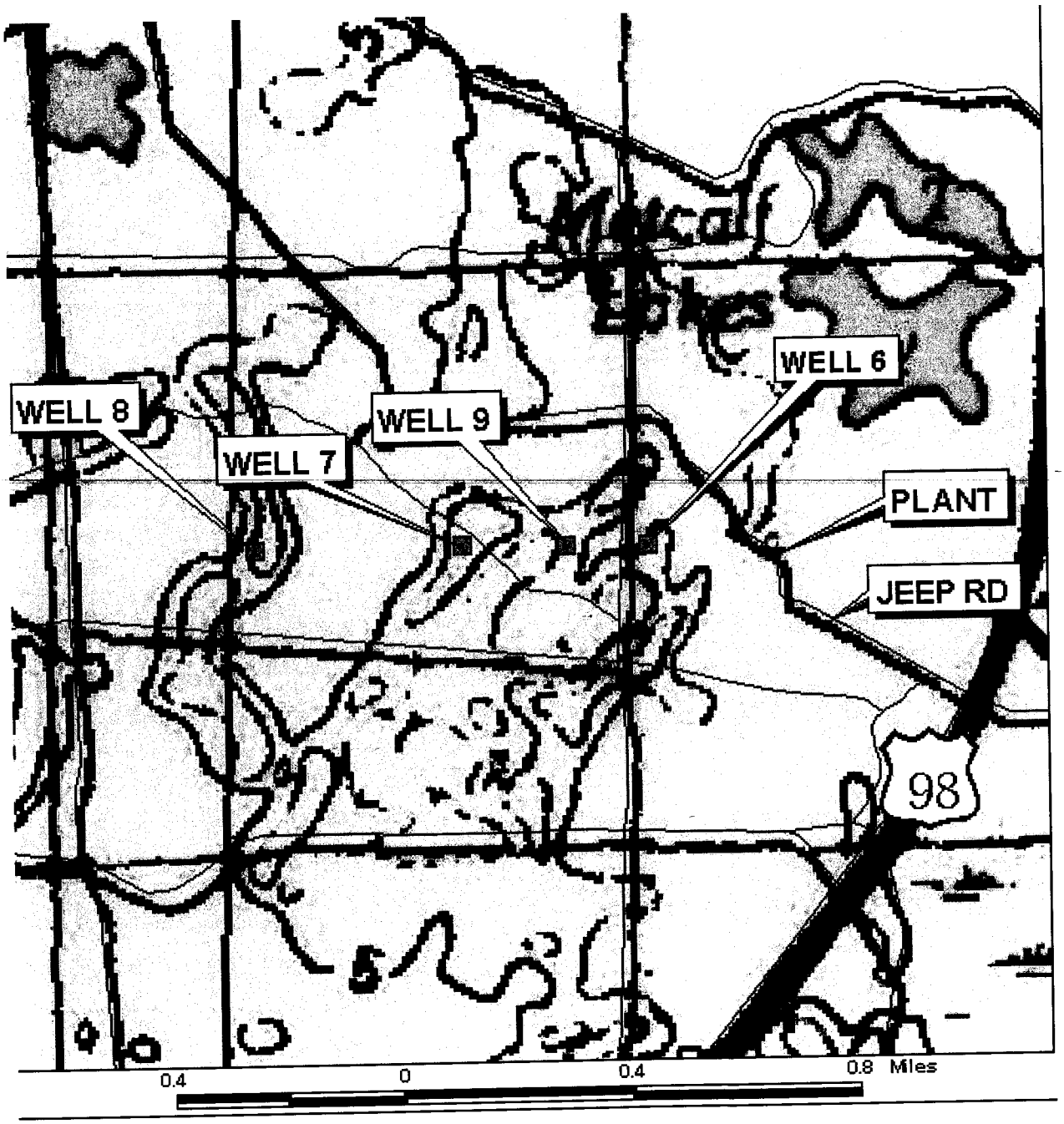
Survey of September 11, 2007



Geographical Information New Well Field

ALLIGATOR POINT WATER SYSTEM

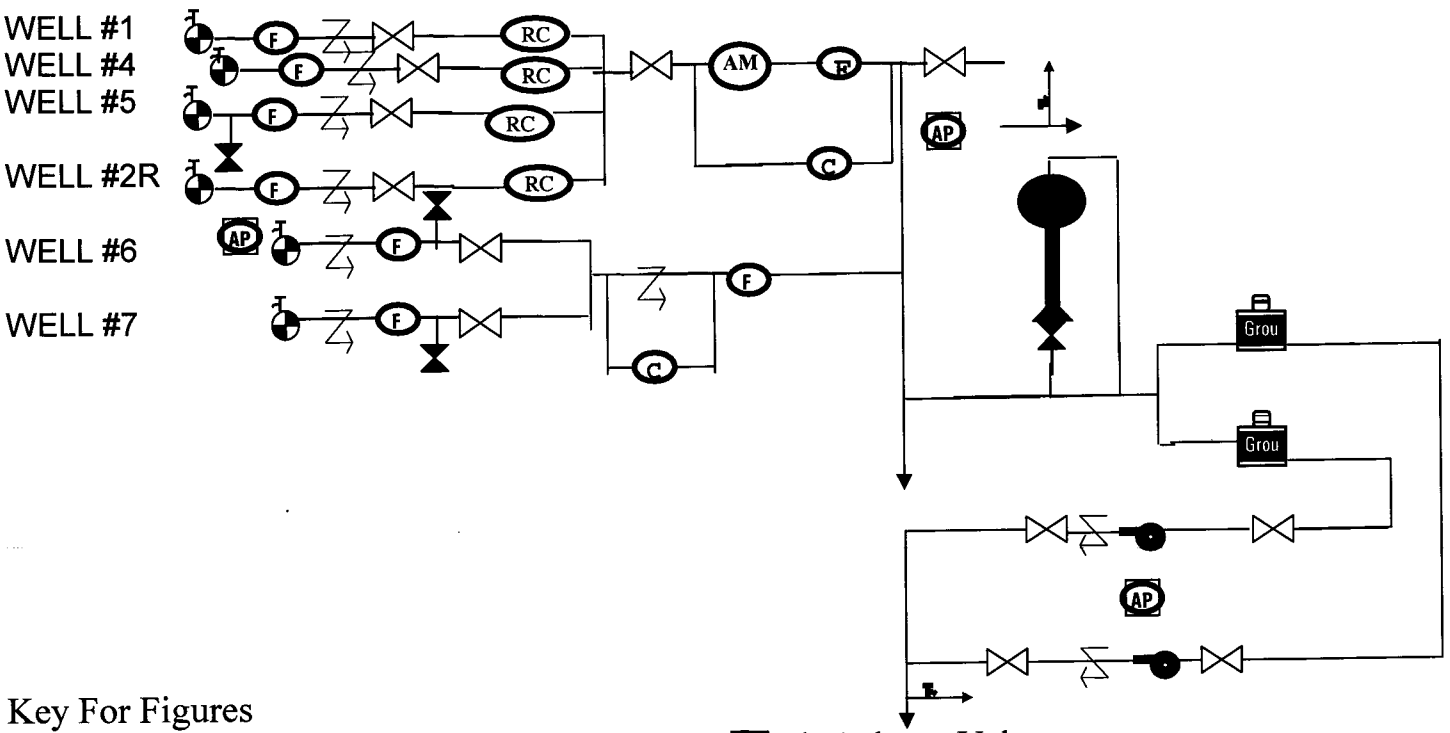
Survey of September 11, 2007



Plant Schematic

ALLIGATOR POINT WATER SYSTEM

Survey of September 11, 2007



Key For Figures

- Wellhead W/sample Tap
- Auxiliary Generator
- Valve (Closed)
- Ground Storage
- Flow Meter
- Point of Entry W/Sample Tap
- Elevated Storage Tank
- Rate Control Valve
- Air Release Valve
- Check Valve
- Valve (Open)
- Chlorinator
- High Service Pump
- Piping
- Aqua-Mag feed

Schedule of Deficiencies

ALLIGATOR POINT WATER SYSTEM
Survey of September 11, 2007

DEFICIENCY 1: FLOW METER AT WELL #7 IS BEYOND THE ACCURACY RANGE ESTABLISHED BY AWWA.

REGULATION REFERENCE: FAC Rule 62-555.330(4).

RECOMMENDED ACTION:
Since the cause of the inaccurate test may be improper meter spacing/installation or forcing the meter to operate outside accuracy range investigate, determine cause and correct. Meter must be rechecked for accuracy after correction.

DEFICIENCY 2: GAS CHLORINATOR SCALES NOT FUNCTIONING AT BOTH WATER PLANTS.

REGULATION REFERENCE: FAC 62-555.320 (13) (a) 6.

RECOMMENDED ACTION:
Repair or replace the scales to accurately weigh chlorine cylinders or containers in use within 90 days.

DEFICIENCY 3: CROSS-CONNECTION CONTROL - - FIRE HYDRANTS

REGULATION REFERENCE: FAC Rule 62-555.360

RECOMMENDED ACTION:
The American Water Works Association's Manual 14 (M14) is referenced by Florida Administrative Code 62-555.330 (6). For situations where hydrants may be used for construction or any other purposes, M14 requires, in part, that a reduced-pressure principle backflow-prevention assembly be installed. Connection to a fire hydrant must be protected with an RPZ backflow protection. The devices should be tested by a Certified Backflow Technician prior to initial installation and annually thereafter.

DEFICIENCY 4: NO TELEMETRY SYSTEM FOR NOTIFICATION OF LOSS OF CHLORINE

REGULATION REFERENCE: FAC Rule 62-555.320 (5)(a) 4

RECOMMENDED ACTION:
Florida Administrative Code 62-555.320 states, in part, that systems that use gas chlorination are required to have an alarm system connected to a central location (such as fire department alarm, police dispatcher, or a utility emergency desk) or shall trigger an automatic dialing or paging device to enable notification of certified operator personnel.

Please comply with this requirement no later than December 31, 2007.

DEFICIENCY 5: TANK OVERFLOWS AT EACH GROUND STORAGE TANK UNSATISFACTORY.

REGULATION REFERENCE: FAC 62-555.320, 330, and 350

RECOMMENDED ACTION:
The overflow piping at the ground storage tank must terminate no more than 18" above ground and a suitable splash pad shall be provided.

WATER SYSTEM MAPS

FAC 62-555 states, in part, that by December 31, 2005, suppliers of water who own or operate a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections shall have, and thereafter maintain, an up-to-date map of their drinking water distribution system. Such a map shall show the location and size of water mains if known; the location of valves and fire hydrants; and the location of any pressure zone boundaries, pumping facilities, storage tanks, and interconnections with other public water systems. Please began to take steps now to ensure compliance with this rule.
NOTE: The system has mapped all major areas in the distribution system, however this is an ongoing process. Great care should be taken to keep this maps up to date.

CONTROL OF AQUA MAG SYSTEM

It is recommended that a test kit for phosphate is purchased and used at least weekly. This should be compared to an established dosage rate for this system.

OVERSIGHT

Recommend establishing an additional level of review for reports, Suspicious data should be investigated for accuracy and obvious errors corrected.

Florida Department of Environmental Protection

Northwest District
160 Governmental Center
Pensacola, Florida 32502-5794

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

December 10, 2007

Sent via email
(apalachadmin@gtcom.net)

Ms. Betty Webb
City of Appalachicola
#1 Avenue E
Appalachicola, Florida 32320

Dear Ms. Webb:

A sanitary survey of the City of Apalachicola Water System (PWS ID No. 1190150) was completed on November 27, 2007, by Cliff McKeown, Engineering Specialist. The assistance provided by Todd Baldwin during the inspection was greatly appreciated.

The purpose of this survey is to evaluate the capability of the water system to continually produce safe drinking water. Public water systems in this state are regulated by the Department under the Florida Safe Drinking Water Act as promulgated by Florida Administrative Code. The Department determines compliance with these regulations.

Deficiencies were identified during the survey as described in the enclosed *Schedule of Deficiencies*. We would appreciate a written response to these deficiencies by January 8, 2008, advising us of the actions and time frame you will take to correct the deficiencies.

If you have any questions regarding the report and/or deficiencies, please contact Cliff McKeown at (850) 488-3704 (or e-mail cliff.mckeown@dep.state.fl.us.)

Sincerely,

G P Neubauer

G. P. Neubauer
Branch Office Manager

GPN:cm
Enclosures
Sanitary Survey Report
Schedule of Deficiencies

cc: Franklin County Department of Health (Jason_Flowers@doh.state.fl.us)
John Pope, Potable Water Section Supervisor (john.pope@dep.state.fl.us)
Angela Chellette, NWFWMD (Angela.Chelette@nwfwmd.state.fl.us)
Todd Baldwin, ESG (tbaldwin@esginc.net)

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

SANITARY SURVEY REPORT

COMMUNITY SYSTEMS

SYSTEM AND OWNER INFORMATION

System: City of Apalachicola | County: Franklin | PWS ID #: 1190150

Address: #1 Ave East | City: Apalachicola | State/Zip: Florida 32320

Phone: 850-653-9697 | Fax: | E-mail: apalachadmin@gtcom.net

Owner: Appalachicola City Commission (Hon. Van Johnson, Mayor) | Phone: 850-653-9319

Address: #1 Ave East , Apalachicola, Florida 32320

INSPECTION AND CONTACT INFORMATION

Date of this inspection: 11-27-07 | Date of last inspection: 9-26-06

DEP Representative(s): Cliff McKeown

Person(s) Contacted: Todd Baldwin, Project Manager

Emergency Number: (850) 323-0567 | Cell: (850)370-6528 | Pager: (850) | Other: (850)

CERTIFIED OPERATORS AND CERTIFICATION NUMBER

Manual Aguiler, C0007543 J. P. Roberts, C0012433,

DIRECTIONS TO PLANT OR OFFICE (provide general directions to the office and/or plant)

SERVICE AREA

Service Area Characteristics: Municipal System

Population Served: 4710 | Basis: 2.3/conn.

Service Connections: 2048 | % Metered: 100

Design Capacity (gallons): 2,160,000

Design Capacity without best well: 1,440,000

Storage Capacity: 700,000 | Ave. Day: 703,155

Max. Day (GPD): 1,390,000 | % Design Capacity: 64

25% Max. Day: 347,500 | % Storage Capacity: 50

EMERGENCY MEDIA CONTACT NUMBERS

	NAME	PHONE NUMBER
Television	WCTV	893-6666
Radio FM	WTXL	893-1313
Radio FM	Cumulus	201-3000
Newspaper	Tall. Democrat	599-2151

PERMANENT SOURCES OF RAW WATER:

☒ Ground* | How Many Wells: 3

☐ Surface** | Source:

☐ Purchased*** | PWS No.:

STANDBY POWER REQUIREMENTS

Emergency Preparedness Plan On file: ☒ Yes ☐ No ☐ Not Required

Does plan include the following :

☒ Communication Chart ☒ Written Agreements ☒ Disaster Plan

☒ Standby Power Info ☒ Inventories ☐ Other

Ave. Day Percentage of Auxiliary Supply: 30

Auxiliary equipment operated at least monthly? ☒ Yes ☐ No

Any Interconnects ☐ Yes ☒ No

If yes, which systems:

Comments:

TREATMENT IN USE AT THIS PLANT: (CHECK ALL THAT APPLY)

Number of Plants: 1

☒ Aeration	☐ E.D.	☐ Iron Removal	☐ pH Adjustment	☒ Chlorination
☐ Filtration	☐ Lime Softening	☐ T&O Control	☐ Chlorination-Pre	☐ Filt. Hi-Rate
☐ Recarbonation	☐ Settling	☐ Chlorination-Post	☐ Fluoridation	☐ Reverse Osmosis
☐ Zeolite Softener	☐ Coagulation	☐ Orthophosphate	☐ Aqua Mag	☐ Other-Specify

Any additional treatment is needed? | For control of what deficiencies?

OPERATOR STAFFING REQUIREMENTS

Number of Licensed Operators: 2 | Staffing comply with FAC 62-699 ? ☒ Yes ☐ No | Visits per week: 7

PWS I.D. No1190150
Date of Survey: November 27, 2008

SOURCE: WELL AND PUMP INFORMATION

	Well Number (or name)→	5	6	7	Comment
	Street location of well (street name)				
	Year Drilled	2002	2002	2003	
W	Depth Drilled (feet)	420	409	409	
E	Drilling Method	Rotary	Rotary	Rotary	
L	Length, Outside Casing (feet)	326	317	325	
L	Diameter, Outside Casing (inches)	12	12	12	
	Material, Outside Casing	BI	BI	BI	
D	Type of Strainer				
A	Depth to Top of Strainer	104	125	146	
T	Type of Grout	Neat Cement	Neat Cement	Neat Cement	
A	Depth to Static Water Level (feet)	8.64	1.75	6	
	Normal Suction Lift (working level-ft)	47.2	58.5	72	
P	Pump Type	Vertical Turbine	Vertical Turbine	Vertical Turbine	
U	Horse Power	30	30	30	
M	Normal Yield, GPM / Test Yield (GPM)	567	582	563	
P	Capacity(GPM)	500	500	500	
R	Protection From Surface Water	Yes	Yes	Yes	
O	Is Inundation of Well Possible?	(1)	(1)	(1)	
U	Well Ever Been Contaminated?	No	No	No	
T	Check Valve Present in Line?	Yes	Yes	Yes	
I	Proper Venting?	Yes	Yes	Yes	
N	Date meter was last calibrated?	New	New	New	
E	Meter diameter	8″	8″	8″	
	Accuracy (+-)	New	New	New	
A	Auxiliary Capability (if yes, list type)	Generator	Generator	Generator	
U	Manual or Automatic?	Auto	Auto	Auto	
X	Capacity (GPM)	580	518	550	
G	Florida Unique ID# (GPS well tag)	AAI0635	AAI0636	AAI0637	
P	GPS latitude N (accuracy≈1m)				
S	GPS longitude W (accuracy≈1m)		131.8	217.3	

Comments: (1) Inundation is likely during hurricanes

PWS I.D. No1190150
Date of Survey: November 27, 2008

• CHLORINATOR

PLANT NUMBER (OR NAME)→		2		comment
Type of chlorination (if hypo list strength)		Gas		
Condition of Chlorination Equipment		New		
Capacity (PPD, GPD)		100/100		
Chlorine Feed Rate (PPD, GPD)		30ppd		
Max Day Chlorine Usage (GPD)		82 lb.		
Low Flow Switch?		N/A		
Adequate Housing and Security?		Yes		
Associated Well(s) (if any)		150		
Auxiliary Power Capability?		5,6,7		
O & M Log/Manual Onsite?		Yes/		
Chlorine Residual / pH		1.27		
G Loss of Vacuum Alarm Telemetry?		Yes		
Loss of Chlorine Alarm?		Yes		
Auto Switchover		Yes		
Dual System		Yes		
Evidence of Leaks		No		
A Air-Pack Respirator Adequate?		Yes		
Ammonia Smells Fresh		Yes		
Chained Cylinders		Yes		
S Fitted Wrench		Yes		
Proper Ventilation		Yes		
Scale Condition		Good		

Spare Parts/Backup Machine Operative? ☒ Yes ☐ No ☐ No Spare Parts Retained/Required More capacity needed? ☐ Yes ☒ No

Comments: Continuous chlorine analyzer is malfunctioning, provides erroneous residuals and fails to dial out alarm conditions

City of Apalachicola
Page Four

PWS I.D. No1190150
Date of Survey: November 27, 2008

AERATOR

Type of Aerator Forced Draft and packed tower

Tray Area or Weir Length N/A

Condition of Screens N/A

Bloodworms None Condition of aerator New

Adequate for Fe, H2S control Yes

COAGULATION

Chemical used

Purpose

Blanket visible Flocculation good or poor

Settling good? Carryover

LIME SOFTENING

Quicklime or hydrated

Name of unit

Size and type

Any auxiliary chemicals used

Points of application (in unit)

Nature and abundance of flux

Appearance of sludge blanket

Is settling good? Excessive carryover

Any filter cementation

Effluent stability

Turbidity in clearwell Secondary precipitation

Recarbonation type

Sludge recirculation Used

FLUORIDATION

Chemical Used Is Dilution

Strength if Acid Used(acid)

Corrosion Noted Feeder

Gelling or Plugging

Make and Model

Split Sample Agreement

Sufficient Analysis

Feeder Condition

STABILIZATION

Is pH control Practiced?

Chemical(s) used

FILTERS & FILTRATION

Type of filters

Size and number

Length of filter runs

Can you see filter media? Clean after backwash?

Are mudballs visible? Binding?

What is the normal filter rate

What is the usual backwash rate

Capacity of filters Filters overloaded?

Loss in head gauge present?

At what head loss is BW done?

Cracks and channeling? Cementation ever occurred?

Where in relation to filtration is stabilization done?

If high rate, what is turbidity at interface Range of turbidity in effluent

Can you observe algae in filters?

Distance from top of media to trough overflow

REVERSE OSMOSIS

Make and type of units

Pressure required

Auxiliary chemicals

Proportion of waste used to product streams

Quality of effluent Stabilization

Type of Pre-treatment Booster pump

Type of membranes

ZEOLITE SOFTENING

Unit mfg. & model

Resin capacity Disinfection of beds

Grade of salt for regen.

Stability of effluent Resin prevented from escaping?

PWS I.D. No1190150
Date of Survey: November 27, 2008

PUMPS AND PUMP CONTROLS

PUMP CATEGORY	HIGH SERVICE				
PUMP NUMBER→	1	2	3	4	Comment
PUMP TYPE	Centrifugal	Centrifugal	Centrifugal	Centrifugal	
MOTOR HP	30 hp	30 hp	30 hp	30 hp	
DATE INSTALLED	2003	2003	2003	2003	
CAPACITY (GPM)	500	500	500	500	
AUXILIARY CAPACITY?	500	500	500	500	
PROPER SECURITY?	Yes	Yes	Yes	Yes	
CONDITION OF PUMP	Good	Good	Good	Good	
MAINT. SCHEDULE	2/Year	2/Year	2/Year	2/Year	
DATE LAST SERVICED	11/07	11/07	11/07	11/07	

STORAGE FACILITIES:

TANK NUMBER→	2	4	5
TYPE (GROUND, ELEVATED, HYPO)	Elevated	Elevated	Ground
YEAR OF CONSTRUCTION		1988	2003
CAPACITY (GALLONS)	200,000	100,000	400,000
MATERIAL	Steel	Steel	Concrete
GRAVITY DRAIN CAPACITY/DIAMETER	6"	6"	10"
OVERFLOW STRUCTURES PROPER?	Yes	No	No
BYPASS CAPACITY	100%	100%	100%
COVERED/SCREENED OPENINGS	Yes	Yes	Yes
PRESSURE GAUGE	N/A	N/A	N/A
ON/OFF PRESSURE (PSI)	N/A	N/A	N/A
HGT. TO BOTTOM OF EL. TANK (FT)	100'	108'	N/A
HGT. TO MAX. WTR. LEVEL(FT)	125'	129'	N/A
DATE OF LAST ANNUAL INSPECTION	2004	2004	Due 2008
YEAR OF LAST 5-YEAR INSPECTION	2004	2004	Due 2008
YEAR OF LAST WASHOUT	2004	2004	Due 2008

Does system provide fire protection? ☒ Yes ☐ No Security Adequate? ☒ Yes ☐ No Low Level Alarm? ☒ Yes ☐ No
Does current storage capacity comply with requirements in FAC 62-555? ☒ Yes ☐ No

COMMENTS:
Five year tank inspections and washouts are due on elevated tanks in the calendar year 2009 and for the ground storage tank in 2008. Annual inspection of hatches and vents are due in 2008

PWS I.D. No1190150
Date of Survey: November 27, 2008

DISTRIBUTION SYSTEM

Material of mains? PVC, Galv, CI System looped? semi How many hydrants? 110
Any fire hydrants < 6" lines? ☒Yes ☐No ☐Unknown Max. pipe diameter 12" Min. pipe diameter 2"
General operation pressure 58 PSI Lowest pressures ~60psi Location of low pressure Bay City
Number of dead ends 13 How many without flush hydrants? 0 Flushing program? weekly
Number of line valves 259 How often exercised See Defic. Properly Mapped? Yes Properly Marked? Yes
System Maps Adequate? Yes Any uncleared permits? Yes Any uncleared and in use?
Percent water loss See Comments Does the system have reuse? No Comments

CROSS CONNECTION CONTROL

Cross Connection Control Program Meet Requirements? ☒Yes ☐No Comment:
Testing Frequency? annual Tracking: ☒Hard Copy ☐CPU # of BFDs: 30+ Hydrant Meters☒ Lift Stations☒ WWTP☒
Date of Last Audit (commercial or residential): Name of Certified BFD Tester: Panhandle Backflow

Chlorine & pH	Remote 1	Remote 2	Remote 3	Remote 4
Chlorine Residual	0.8	1.8		
pH				
Location	Bay City	WWTF		

COMPLIANCE MONITORING

Compliance Schedule: The following parameters are due during the year shown.

Inorganics	2009	Secondaries	2009	VOCs	2007	Radiologicals	2009
SOCs	2009	Asbestos	2012	TTHMs/HAA5	2008	Pb & Cu	2008

System out of compliance with any of the above parameters?
Testing Equipment & Reagents ☒Adequate ☐Inadequate Comment:
Bacteriological Sampling Plan: ☒Adequate ☐Inadequate Comment:
Disinfection Byproducts Plan: ☐Adequate ☐Inadequate Comment: Not available

MANAGERIAL/FINANCIAL

How is the system structured? (investor, municipal, private, cooperative, etc) ☒ Yes ☐ No Does the system follow a budget? ☒ Yes ☐ No
Preventative Maintenance Program in place? ☒ Yes ☐ No Is adequate training provided to water system personnel? ☒ Yes ☐ No
Comment: GMA is a new program and is based on manufacturers recommendations

In the space below, give a rough sketch of the flow diagram of the plant, showing all important parts of the plant (not to scale):

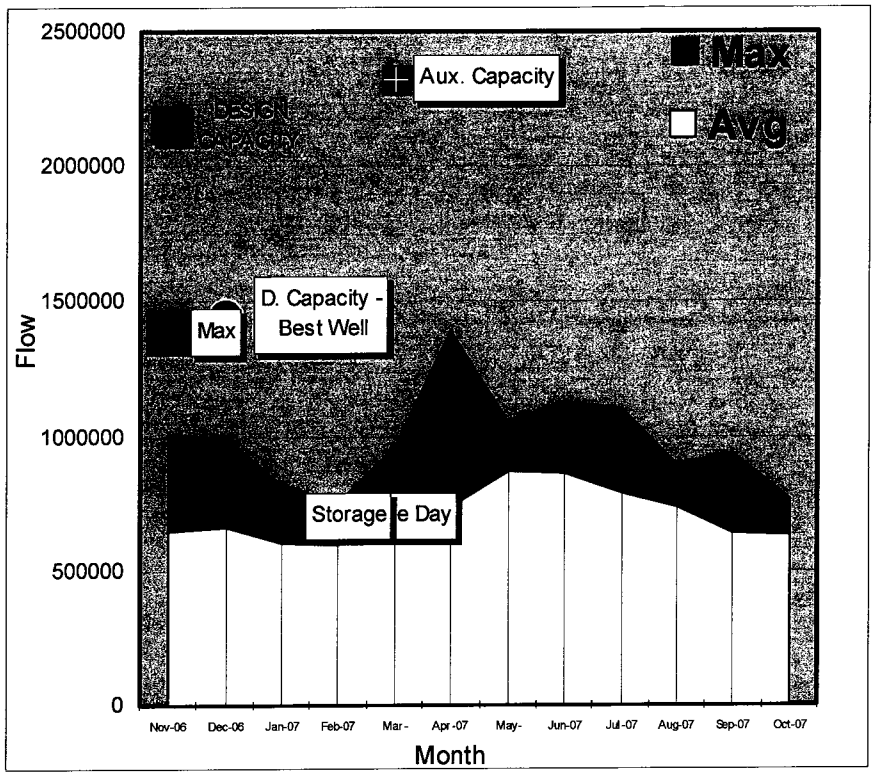
SEE ATTACHED

INSPECTOR'S SIGNATURE Cliff McKeown TITLE ENGINEER SPECIALIST DATE: December 10, 2007
CLIFF MCKEOWN

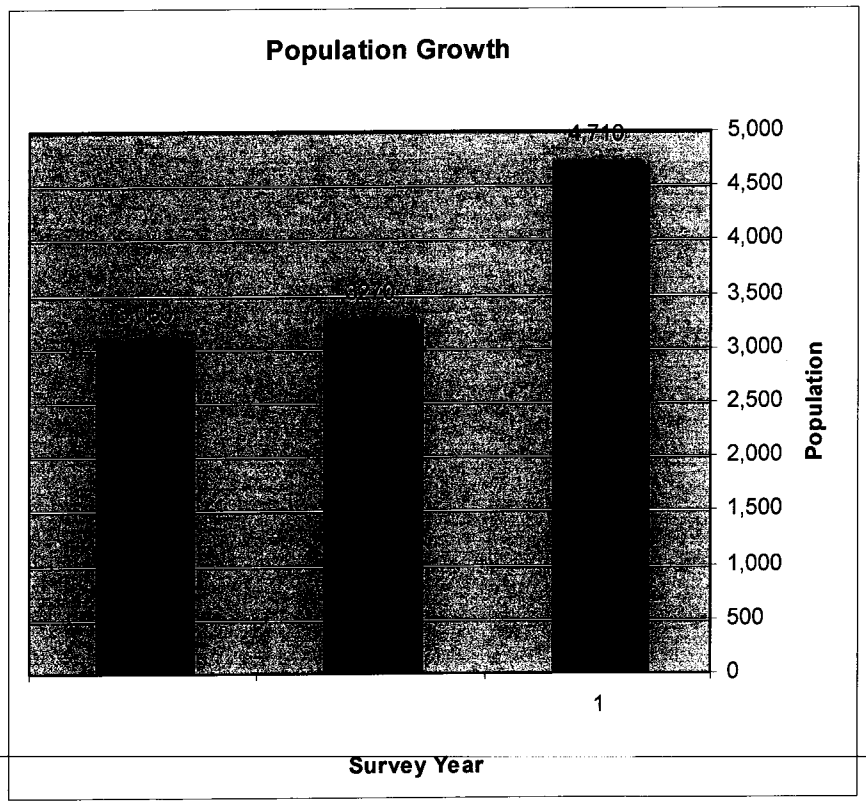
APPROVED BY G P Neubauer TITLE BRANCH MANAGER DATE: December 10, 2007
G. P. NEUBAUER

Flow & Capacity and Population Graphs

City of Apalachicola PWS I.D. No1190150
Survey of November 27, 2007



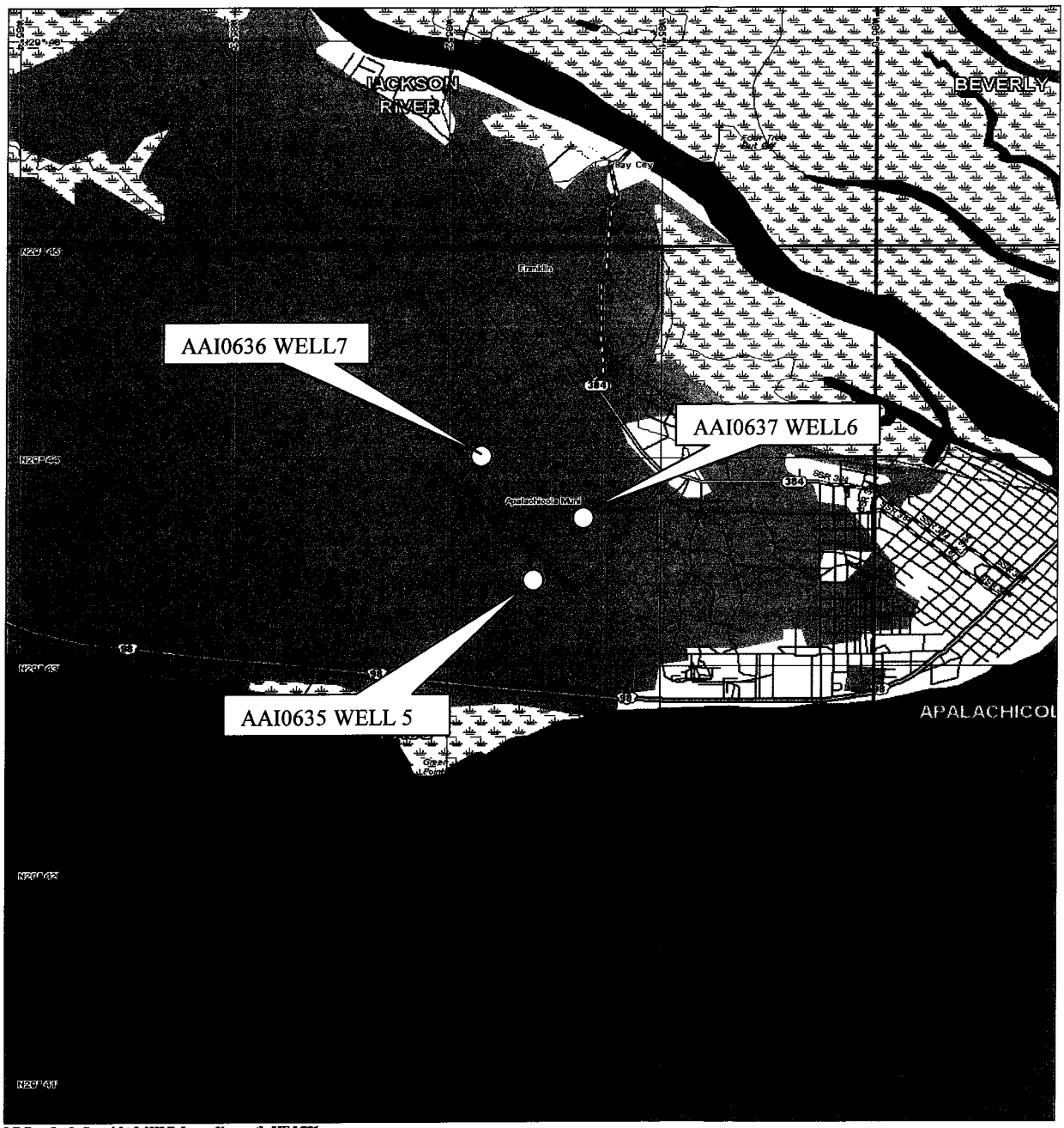
Max. day is well below design at this time. However as connections increase the 75% threshold for Capacity Analysis Reports will be reached.



Population is based on County-wide average of 2.3 persons per household, as provided by US Census Bureau.

Geographical Information

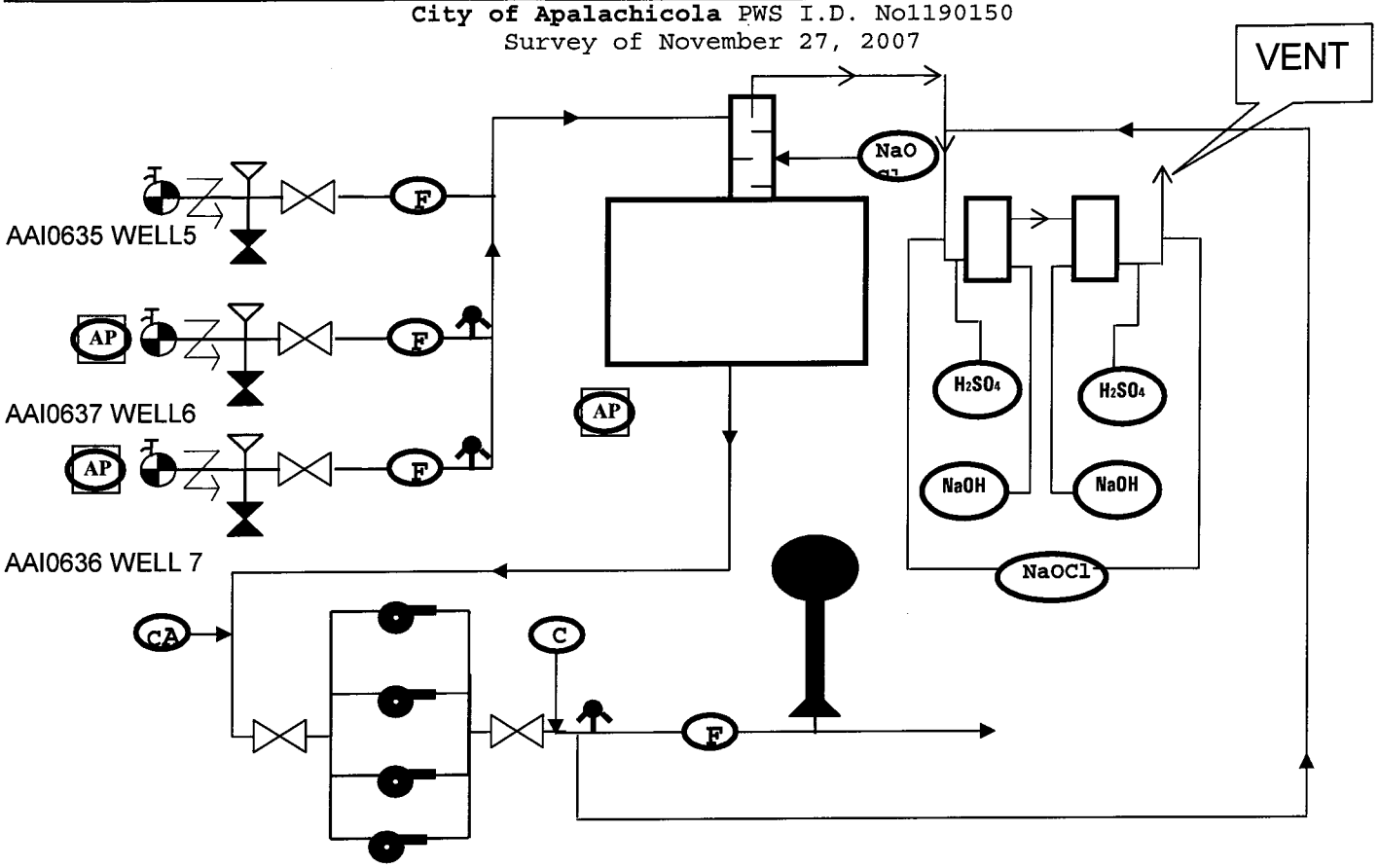
City of Apalachicola PWS I.D. No1190150
Survey of November 27, 2007



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 1000 ft Scale: 1 : 40,625 Detail: 12-3 Datum: WGS84

Plant Schematic

City of Apalachicola PWS I.D. No1190150
Survey of November 27, 2007



Wellhead W/Sample Tap

Air Release Valve

Valve (Open)

Flow Meter

F/D Aerator

Chlorinator

Sodium Hypochlorite

Sodium Hydroxide

Fire Hydrant

Check Valve

Valve (Closed)

Piping

Auxiliary Generator

Chlorine Analyzer

Packed Tower (Plastic Beads)

Sulfuric Acid

Elevated Storage Tank

DEFICIENCY 1: METER ACCURACY CHECKS.

REGULATION REFERENCE: FAC Rule 62-555.350 (2)

RECOMMENDED ACTION:
FAC requires that water systems maintain and calibrate master meters in accordance with the manufacturer's recommendation. American Water Works Association AWWA Standards C704-92, *Meters*, Section A.6, states, in part, that to ensure reliable meter measurements, it is essential that all meters be subjected to periodic tests. The interval between tests and the method of conducting them must be governed largely by local conditions. Since no record of testing of the meters at the plants were available, it is important that the meters be tested for proper accuracy as soon as possible. Testing of meters can be accomplished by the Florida Rural Water Association. In addition, the plant meters should be tested periodically as recommended by the AWWA.

DEFICIENCY 2: TELEMETRY FOR LOSS OF CHLORINE ALARM WAS INOPERABLE
Telemetry operates in conjunction with the continuous chlorine residual analyzer this device was providing unreliable chlorine residual readings as well as failing to provide a failure alarm .

REGULATION REFERENCE: 62-555-320(13)(a) 9.

RECOMMENDED ACTION:
Each treatment plant that is using gas chlorination facilities for disinfection and that is connected to a community water system serving, or designed to serve, 350 or more persons or 150 or more service connections, the supplier of water shall provide an audio-visual alarm system that is activated by high- and low-vacuum switches, a continuous chlorine residual analyzer, or a continuous oxidation-reduction potential meter to indicate loss of chlorination capability or chlorine residual. If the plant is not staffed during all hours the plant is in operation, the alarm also shall be telemetered to a place staffed during all hours the plant is in operation, or shall trigger an automatic telephone dialing or paging device, to enable notification of an appropriately licensed water treatment plant operator.

DEFICIENCY 3: VALVES NOT EXERCISED.

REGULATION REFERENCE: FAC Rule 62-555.350 (2)

RECOMMENDED ACTION:
Preventive maintenance on electrical or mechanical equipment -- including exercising of isolation valves -- shall be performed in accordance with the equipment manufacturer's recommendations.

DEFICIENCY 4: STORAGE TANK DUE FOR YEARLY INSPECTION.

REGULATION REFERENCE: FAC Rule 62-555.350 (2)

RECOMMENDED ACTION:
Finished-drinking-water storage tanks, including conventional hydropneumatic tanks with an access manhole but excluding bladder- or diaphragm-type hydropneumatic tanks without an access manhole, shall be checked at least annually to ensure that hatches are closed and screens are in place; shall be cleaned at least once every five years to remove biogrowths, calcium or iron/manganese deposits, and sludge from inside the tanks; and shall be inspected for structural and coating integrity at least once every five years by personnel under the responsible charge of a professional engineer licensed in Florida. Please ensure that the storage tank is inspected as soon as possible.

DEFICIENCY 5: STORAGE FACILITIES DEFICIENT, SPECIFICALLY: TANKS 1 AND 2 HAVE DRAIN/OVERFLOWS BELOW FLOOD RIM

REGULATION REFERENCE: FAC 62-555.320 and 330

RECOMMENDED ACTION:
Modify/Maintain the storage facility above as follows: Raise both overflows/drains at least 12" above the flood rim of the drainage ditch where they terminate.

DEFICIENCY : Disinfection byproduct monitoring plan (DBPP).

REGULATION REFERENCE: FAC 62-550.821 (10)

RECOMMENDED ACTION:
Water systems shall make their monitoring plan available for review during sanitary surveys conducted by the Department and shall submit their monitoring plan if requested by the Department in accordance with FAC 62-550.821. Please prepare a DBPP in accordance with the above referenced rule within 90 days.

Comments and Remarks

City of Apalachicola PWS I.D. No1190150
Survey of November 27, 2007

Outstanding Permits

Our records indicate that the enclosed list of permits have not been cleared by this office.
Please submit a status report for the permits listed with your response to this report.

The 'status' would fall into one of the following categories, A, B, C, D, or E:

A) not started
B) started, but not completed
C) completed, but not in use
D) completed, and in use
E) project abandoned (will not be built)

NAME	PERMIT NO.	ISSUE DATE	EXPIRATION DATE	STATUS
Waterside at Apalachicola	0235703-004-DSGP/01.	9-Sep-04	9-Sep-09	
Manatee Bluff Subdivision	0203042-003-DS-C	4-Aug.-03	7-Aug.-04	

Currently it is not possible to accurately determine the amount of unaccounted for water. This is due to the difference in the times when service meters are read and when master meters are read. Tracking unaccounted for water is a valuable tool used in evaluating a water system's efficiency. We recommend devising a method by which sold water and produced water may be compared.

Carabelle Annual Report – Water

Ms. Rebecca Jackson
City Clerk
Post Office Drawer 569
Carrabelle, Florida 32322

Dear Ms. Jackson:

A sanitary survey of the City of Carrabelle Water System (PWS ID No. 1190118) was completed on February 25, 2005, by Cliff McKeown, Engineer. The assistance provided by Keith Mock during the inspection was greatly appreciated.

The purpose of this survey is to evaluate the capability of the water system to continually produce safe drinking water. Public water systems in this state are regulated by the Department under the Florida Safe Drinking Water Act as promulgated by Florida Administrative Code Chapters 62-550, 555 and 560. The Department determines compliance with these regulations.

Major/Minor deficiency/deficiencies was/were identified during the survey as described in the enclosed *Schedule of Deficiencies*. Other recommendations are enclosed within the report which do not require a written response unless otherwise stated.

We would appreciate a written response to this report by within 30 days of the date of this letter, advising us of the actions and time frame you will take to correct the listing noted in the Schedule of Deficiencies. Please address the response to me.

If you have any questions regarding the report and/or deficiencies, please contact the inspector or me at (850) 488-3704 (or e-mail cliff.mckeown@dep.state.fl.us).

Sincerely,

John H. Pope
Potable Water Section Supervisor

JHP:cm
Enclosures
Sanitary Survey Report
Schedule of Deficiencies
System Map(s)
Noted Enclosures

cc: Franklin County Department of Health
Cliff McKeown

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

S A N I T A R Y S U R V E Y R E P O R T

C O M M U N I T Y S Y S T E M S

SYSTEM AND OWNER INFORMATION

System **City of Carrabelle** County Franklin PWS ID # 1190118

Address Avenue C South City Carrabelle

Phone 850-697-3618 Fax E--mail

Owner Mr. Keith Mock, Operator/Superintendant Phone 850-697-3618

Address Post Office Drawer 569, Carrabelle, Florida 32322

INSPECTION AND CONTACT INFORMATION

Date of this inspection 2-25-05 Date of last inspection 9-20-01

DEP Representative(s) Cliff McKeown

Person(s) Contacted Mr. Keith Mock, Operator/Superintendant

Emergency Number Cell (850)251-9106 Pager email cbelwwtp@gtcom.net

CERTIFIED OPERATORS AND CERTIFICATION NUMBER **Mr. Keith Mock, C-7351**

DIRECTIONS TO PLANT OR OFFICE (provide general directions to the office and/or plant)

Us 98 east from Carrabelle to Kenneth Cope Road. North to first turn, office is at WWTP.

SERVICE AREA

Service Area Characteristics Municipal System

Population Served 2985 Basis 3.5/conn

Service Connections 853 % Metered 100

Design Capacity (gallons) 1,512,000

Design Capacity without best well 504,000

Storage Capacity 535,000 Ave. Day 208,350

Max. Day (GPD) 443,000 % Design Capacity 29%

25% Max. Day 110,750 % Storage Capacity 21%

PERMANENT SOURCES OF RAW WATER:

☒ Ground* How Many Wells 2

☐Surface** Source _____
☐ PWS No.
Purchased*** _____

Does plan include the following :
☐Communication Chart ☐Written Agreements ☐ Disaster Plan ☐Standby Power Info ☐Inventories ☐Other

Ave. Day Percentage of Auxiliary Supply 13.8%

Auxiliary equipment operated at least monthly? ☒Yes ☐No

Any Interconnects ☐Yes ☒No

If yes, which systems: _____

Comments: _____

EMERGENCY MEDIA CONTACT NUMBERS

	NAME	PHONE NUMBER
Television	WCTV	893-6666
Radio FM	WTXL	893-1313
Radio FM	Cumulus	201-3000
Newspaper	Tall. Democrat	599-2151

STANDBY POWER REQUIREMENTS

Emergency Preparedness Plan On file: ☐Yes ☒No
☐Not Required

TREATMENT IN USE AT THIS PLANT: (CHECK ALL THAT APPLY)

Number of Plants 2

☒Aeration	☐E.D.	☐Iron Removal	☐pH Adjustment	☒Chlorination
☐Filtration	☐Lime Softening	☐T&O Control	☐Chlorination-Pre	☐Filt. Hi-Rate
☐Recarbonation	☐Settling	☐Chlorination-Post	☐Fluoridation	☐Reverse Osmosis
☐Zeolite Softener	☐Coagulation	☐Orthophosphate	☐Aqua Mag	☐ Other-Specify

Any additional treatment is needed? _____ For control of what deficiencies? _____

OPERATOR STAFFING REQUIREMENTS

Number of Licensed Operators 1 Staffing comply with FAC 62-699 ? ☒Yes ☐No Visits per week: 7

City of Carrabelle
No. 1190118
Page Two

PWS I.D.

SOURCE: WELL AND PUMP INFORMATION					
	Well Number (or name)→	2	3		Comment
	Street location of well (street name)	First street	CR 67 north		
	Year Drilled	1961	1998		
W	Depth Drilled (feet)	150	150		
E	Drilling Method	1	Rotary		
L	Length, Outside Casing (feet)	100	80		
L	Diameter, Outside Casing (inches)	12	12		
	Material, Outside Casing	Steel	BI		
D	Type of Strainer	1	Galv. Cone		
A	Depth to Top of Strainer	1	80		
T	Type of Grout	1	Neat Cement		
A	Depth to Static Water Level (feet)	10	4		
	Normal Suction Lift (working level-ft)	143	Unknown		
P	Pump Type	VT	VT		
U	Horse Power	20	20		
M	Normal Yield, GPM / Test Yield (GPM)	340	700		
P	Capacity(GPM)	350	700		
R	Protection From Surface Water	Yes	Yes		
O	Is Inundation of Well Possible?	No	No		
U	Well Ever Been Contaminated?	No	No		
T	Check Valve Present in Line?	Yes	Yes		
I	Proper Venting?	Yes	None		

N	Meter Accuracy and diameter	+1.5/6″	-0.4/8″		
E	Date of test	2-28-04	2-28-04		
A	Auxiliary Capability (if yes, list type)	Diesel	Diesel		
U	Manual or Automatic?	Auto	Auto		
X	Capacity (GPM)		out		
G	Florida Unique ID# (GPS well tag)	AAA5320	ABB1424		
P	GPS latitude N (accuracy≈1m)	29⁰50'57.407"	29⁰5235.76		
S	GPS longitude W (accuracy≈1m)	84⁰39'43.758"	84⁰3911.02		

Comments: Well #2 needs a new tag. Improper well vents at well #2

City of Carrabelle PWS I.D.
No. 1190118
Page Three

TREATMENT

- CHLORINATOR

PLANT NUMBER (OR NAME)→	2	3	3	comment
Type of chlorination (if hypo list strength)	Gas	Gas		
Condition of Chlorination Equipme	Good	Good		
Capacity (PPD, GPD)	100 lb	100 lb		
Chlorine Feed Rate (PPD, GPD)		45		
Max Day Chlorine Usage (GPD)		10		
Low Flow Switch?				
Adequate Housing and Security?	Yes	Yes		
Associated Well(s) (if any)	2	3		
Auxiliary Power Capability?	Yes	Yes		
O & M Log/Manual Onsite?	Log only	Log only		
Chlorine Residual / pH		0.47		
Loss of Vacuum Alarm Telemetry?	Yes	Yes		
Loss of Chlorine Alarm?	Yes	Yes		
G Auto Switchover	Yes	Yes		
Dual System	No	No		
Evidence of Leaks	No	No		
A Air-Pack Respirator Adequate?	Yes	Yes		
Ammonia Smells Fresh	Yes	Yes		
Chained Cylinders	Yes	Yes		
S Fitted Wrench	Yes	Yes		
Proper Ventilation	Yes	Yes		

Scale Condition	Good	Good		

Spare Parts/Backup Machine Operative? ☒Yes ☐No ☐No Spare Parts Retained/Required More capacity needed? ☐Yes ☐No

Comments: Both have Chlorine residual analyzers. # 2 malfunctioning during Inspection. Chlorine residual analyzer/and chlorinator need repair.

City of Carrabelle
No. 1190118
Page Four

PWS I.D.

AERATOR

Type of Aerator: Packed tower

Tray Area or Weir Length: N/A

Condition of Screens: N/A

Bloodworms: None Observed

Condition of aerator: New

Adequate for Fe, H2S control: Unknown, finished water not tested

COAGULATION

Chemical used: _____

Purpose: _____

Blanket visible: _____

Flocculation good or poor: _____

Settling good? _____

Carryover: _____

LIME SOFTENING

Quicklime or hydrated: _____

Name of unit: _____

Size and type: _____

Any auxiliary chemicals used: _____

Points of application (in unit): _____

Nature and abundance of flux: _____

Appearance of sludge blanket: _____

Is settling good? _____

Excessive carryover _____

Any filter cementation _____

Effluent stability _____

Turbidity in clearwell _____

Secondary precipitation _____

Recarbonation type _____

Sludge recirculation Used _____

FLUORIDATION

Chemical Used Is Dilution _____

Strength if Acid _____

Used(acid) _____

Corrosion Noted Feeder _____

Gelling or Plugging _____

Make and Model _____

Split Sample Agreement _____

Sufficient Analysis _____

Feeder Condition _____

STABILIZATION

Is pH control Practiced? _____

Chemical(s) used _____

FILTERS & FILTRATION

Type of filters _____

Size and number _____

Length of filter runs _____

Can you see filter media? _____ Clean after backwash? _____

Are mudballs visible? _____ Binding? _____

What is the normal filter rate _____

What is the usual backwash rate _____

Capacity of filters _____ Filters overloaded? _____

Loss in head gauge present? _____

At what head loss is BW done? _____

Cracks and channeling? _____ Cementation ever occurred? _____

Where in relation to filtration is stabilization done? _____

If high rate, what is turbidity at interface Range of turbidity in effluent _____

Can you observe algae in filters? _____

Distance from top of media to trough overflow _____

REVERSE OSMOSIS

Make and type of units _____

Pressure required _____

Auxiliary chemicals _____

Proportion of waste used to product streams _____

Quality of effluent _____ Stabilization _____

Type of Pre-treatment _____ Booster pump _____

Type of membranes _____

ZEOLITE SOFTENING

Unit mfg. & model _____

Resin capacity _____ Disinfection of beds _____

Grade of salt for regen. _____

Stability of effluent _____ Resin prevented from escaping? _____

City of Carrabelle
No. 1190118
Page five

PWS I.D.

PUMPS AND PUMP CONTROLS

PUMP CATEGORY				
PUMP NUMBER→	1	2		
PUMP TYPE	VT	VT		
MOTOR HP	40	40		
DATE INSTALLED	Unknown	Unknown		
CAPACITY (GPM)	650	650		

AUXILIARY CAPACITY?	~700 gpm	~700 gpm		
PROPER SECURITY?	yes	yes		
CONDITION OF PUMP	Good	Good		
MAINT. SCHEDULE	As Needed	As Needed		
DATE LAST SERVICED	New	Out of Service		

STORAGE FACILITIES:

TANK NUMBER→	1	2	Comment
TYPE (GROUND, ELEVATED, HYPO)	Elevated	Ground	
YEAR OF CONSTRUCTION	Unknown	1998	
CAPACITY (GALLONS)	135,000	400,000	
MATERIAL	Steel	Concrete	
GRAVITY DRAIN CAPACITY/DIAMETER	none	10″	
OVERFLOW STRUCTURES PROPER?	Yes	No	
BYPASS CAPACITY	100%	100%	
COVERED/SCREENED OPENINGS	Yes	Yes	
PRESSURE GAUGE	N/A	N/A	
ON/OFF PRESSURE (PSI)	N/A	N/A	
HGT. TO BOTTOM OF EL. TANK (FT)	81′	N/A	
HGT. TO MAX. WTR. LEVEL(FT)	109′	N/A	
DATE OF LAST ANNUAL INSPECTION	none	none	
YEAR OF LAST 5-YEAR INSPECTION	none	none	
YEAR OF LAST WASHOUT	none	none	

Does system provide fire protection? ☒Yes ☐No Security Adequate? ☐Yes ☒No Low Level Alarm? ☒Yes ☐No

Does current storage capacity comply with requirements in FAC 62-555? ☐Yes ☒No see deficiencies/recommendations

COMMENTS:

DISTRIBUTION SYSTEM

Material of mains? C.I., PVC, Galv, Transite
System looped? semi
How many hydrants? unknown
Any fire hydrants < 6" lines? ☐Yes ☒No ☐ Unknown
Max. pipe diameter 6"
Min. pipe diameter 2"
General operation pressure 72 psi
Lowest pressures 72 psi
Location of low pressure
Number of dead ends 7
How many without flush hydrants? 0
Flushing program? Need work
Number of line valves Unknown
How often exercised Never
Properly Mapped? Yes
Properly Marked? Unknown
System Maps Adequate? Yes
Any uncleared permits?
Any uncleared and in use?
Percent water loss Unknown
Does the system have reuse? No
Comments

CROSS CONNECTION CONTROL

Cross Connection Control Program Meet Requirements? ☒ Yes ☐No
Comment: High hazards west of bridge
Testing Frequency? Annual
Tracking: ☒Hard Copy ☐CPU
# of BFDs: Unknown
Hydrant Meters☐ Lift Stations☒ WWTP ☒
Date of Last Audit (commercial or residential): 2002
Name of Certified BFD Tester: Various testers used

Chlorine & pH	Remote 1	Remote 2	Remote 3	Remote 4
Chlorine Residual	0.2			
pH				
Location	Carrabelle Palms			

COMPLIANCE MONITORING

Compliance Schedule: The following parameters are due during the year shown.

Inorganics	2006	SOCs	2006	TTHMs/HAA5	2005	Asbestos	2012
VOCs	2006	Radiologicals	2006	Secondaries	2006	Pb & Cu	

System out of compliance with any of the above parameters? Possible HAA_5

Testing Equipment & Reagents ☒Adequate ☐Inadequate Comment:

Bacteriological Sampling Plan: ☒Adequate ☐Inadequate
Comment:

Disinfection Byproducts Plan: ☒Adequate ☐Inadequate
Comment: Approved but may need to be revisited

MANAGERIAL/FINANCIAL

How is the system structured? (investor, municipal, private, cooperative, etc) ☐ Yes ☐ No
Does the system follow a budget? ☒ Yes ☐ No
Preventative Maintenance Program in place? ☒ Yes ☐ No
Is adequate training provided to water system personnel? ☒ Yes ☐ No

Comment : municipal

In the space below, give a rough sketch of the flow diagram of the plant, showing all important parts of the plant (not to scale):

SEE ATTACHMENT NUMBER 3

INSPECTOR'S SIGNATURE Cheryl McKenna TITLE _____ DATE: December 5, 2008

APPROVED BY _____ TITLE _____ DATE: _____

ATTACHMENT NUMBER 1

FLOW ANALYSIS
CARRABELLE WATER SYSTEM
SANITARY SURVEY – FEBRUARY 25, 2005

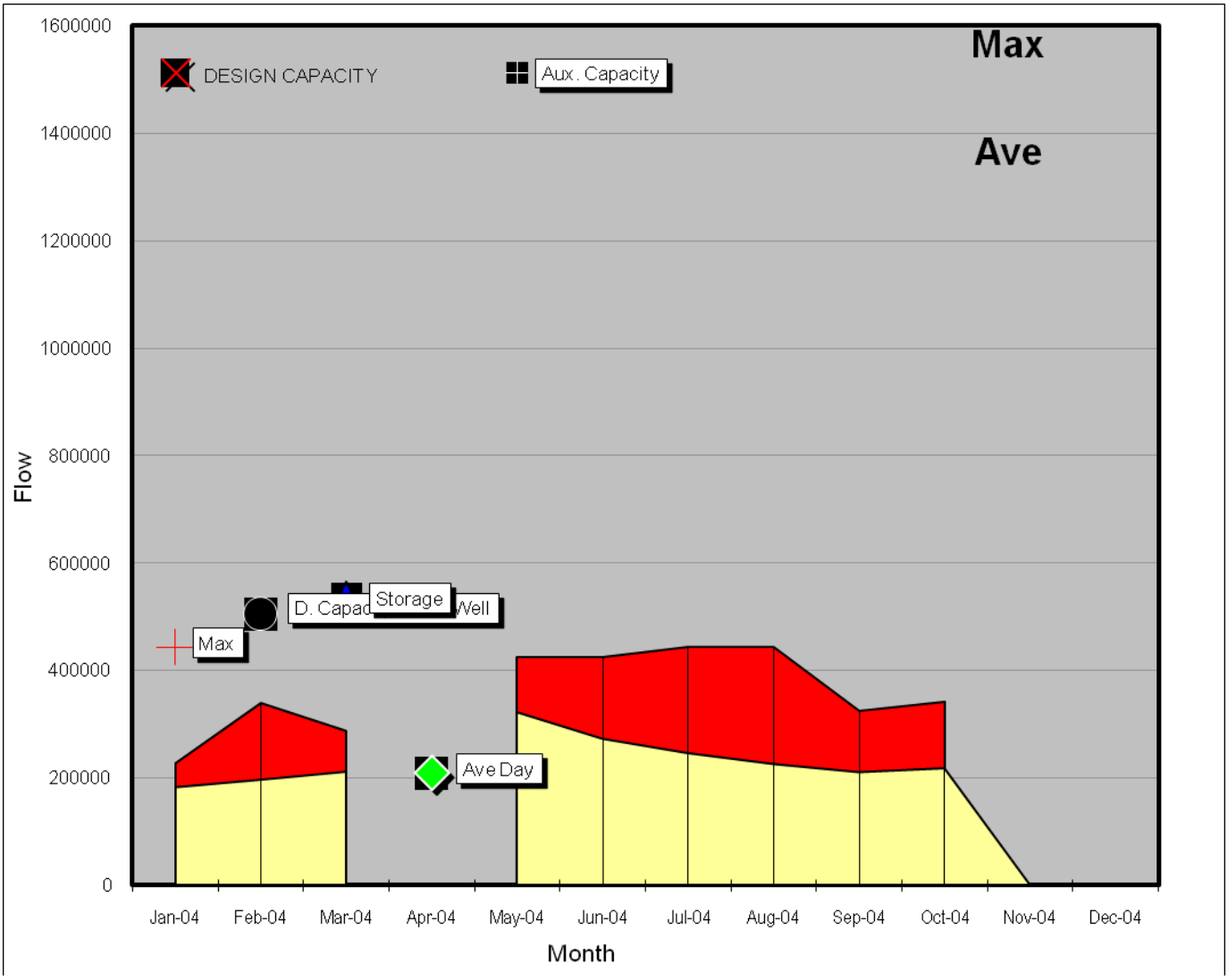


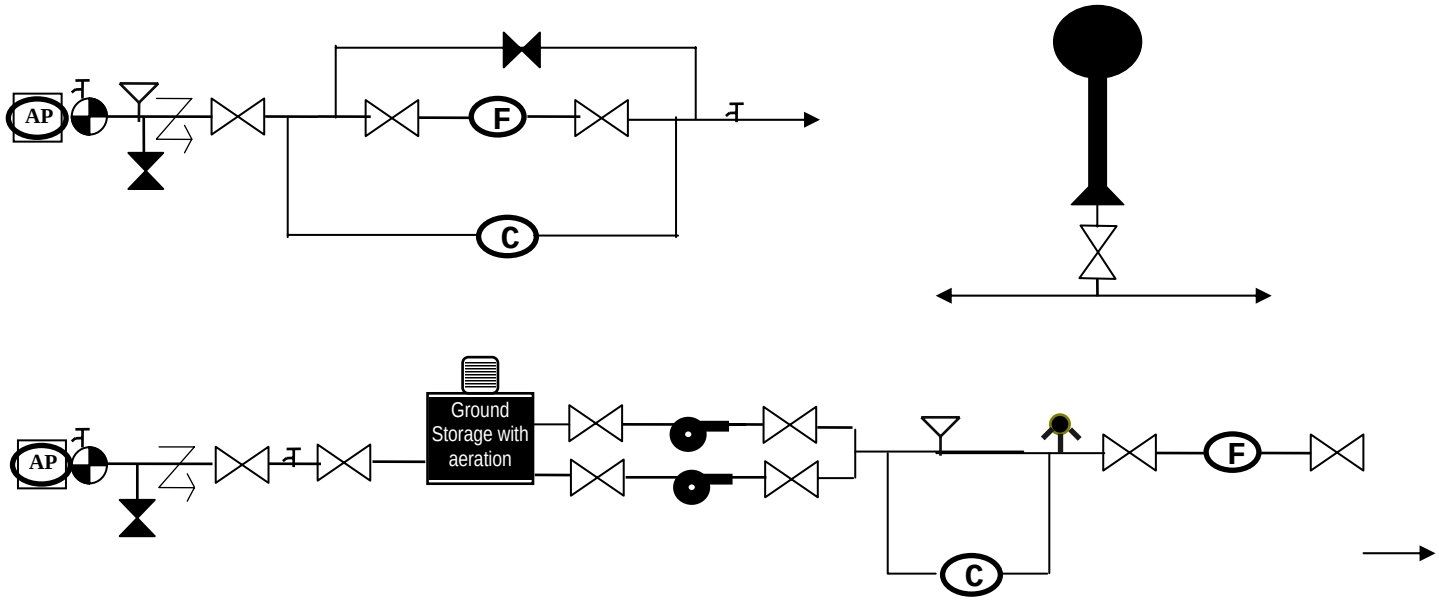
Chart depicts both average flows (yellow) and the maximum days (red) encountered in the calendar year 2004. As can be seen both the design capacity and auxiliary supply capacity far exceed maximum day. Note that the design capacity excluding the best well (highest pumping) and the maximum day are 504,000 gpd and 443,000gpd respectively.

ATTACHMENT NUMBER 2

FACILITIES LOCATION
CARRABELLE WATER SYSTEM
SANITARY SURVEY – FEBRUARY 25, 2005

ATTACHMENT NUMBER 3

PLANT SCHEMATIC
CARRABELLE WATER SYSTEM
SANITARY SURVEY – FEBRUARY 25, 2005



Key For Figures

Wellhead W/sample Tap	Air Release Valve
Auxiliary Generator	Check Valve
Valve (Closed)	Valve (Open)
Ground Storage W/Aeration	Chlorinator
Flow Meter	High Service Pump
Point of Entry W/Sample Tap	Piping
Elevated Storage Tank	

ATTACHMENT NUMBER 4

SCHEDULE OF DEFICIENCIES
CARRABELLE WATER SYSTEM
SANITARY SURVEY – FEBRUARY 25, 2005

1. No Auxiliary power plan is available FAC Rule 62-550(6)(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. An adequate plan should include routine procedures for exercising the generator as well as preparations for emergency conditions.

2. The cross connection control program is not being operated aggressively in all areas, FAC Rule 62-555.360(2). The newer connections west of the bridge must be audited and brought into compliance with the cross connection control program.

3. The overflow piping at tank no 3, (400,000 gal.) is not protected by suitable screening or a flapper valve, FAC Rule 62-555.330 (3). The overflow of a ground-level structure shall open downward and be screened with twenty-four-mesh non-corrodible screen installed within the pipe at a location least susceptible to damage by vandalism.

4. The chlorinator and or chlorine residual analyzer serving well 2 was malfunctioning during inspection, FAC Rule 62-555.320(9). Identify and correct the cause of the malfunction before this well is used again.

5. Well number 3’s air vent is open to the atmosphere and without proper screening, FAC Rule 62-555.330(3)

ATTACHMENT NUMBER 5

NEW RULE UPDATES
CARRABELLE WATER SYSTEM
SANITARY SURVEY – FEBRUARY 25, 2005

Reminder Regarding Changes to Florida Administrative Code 62-555

The Department would like to take this opportunity to reiterate recent changes to Florida Administrative Code (FAC) 62-555. The rule can be downloaded in its entirety at http://www.dep.state.fl.us/legal/rules/drinkingwater/62-555.pdf

Florida Administrative Code 62-555.320 contains changes in well and plant construction, minimum capacity requirements, as well as safety requirements for treatment facilities.

Additionally, FAC 62-555.350 contains many new operation and maintenance requirements. Here's a quick list of some of the important changes in 62-555.350:

62-555.350 (2) Water System Maintenance

- Calibration of meters;
- Routine removal of accumulated sludge and biogrowth from treatment facilities;
- Annual and 5 year inspection of storage facilities;
- 5 year wash-out of storage facilities; and,
- Flushing of dead-end mains.

State Warning Point and other notification requirements.
Boil water requirements
Water system map requirements.
Emergency Preparedness/Response Plan requirements.

Keep in mind that rules, forms, and other information can also be found on our website, at http://www.dep.state.fl.us/water/drinkingwater/

Department of
Environmental Protection

Jeb Bush
Governor

Northwest District
160 Governmental Center
Pensacola, Florida 32502-5794

Colleen M. Castille
Secretary

September 12, 2006

Sent via email
(wmshg2000@yahoo.com)

Mr. Hank Garrett
Eastpoint Water and Sewer District
Post Office Box 610
Eastpoint Florida 32328

Dear Mr.Garrett:

A sanitary survey of the Eastpoint Water & Sewer District Water System (PWS ID No. 1190236) was completed on August 25, 2006, by Cliff McKeown, Engineering Specialist. The assistance provided by Derek Martina and you during the inspection was greatly appreciated.

The purpose of this survey is to evaluate the capability of the water system to continually produce safe drinking water. Public water systems in this state are regulated by the Department under the Florida Safe Drinking Water Act as promulgated by Florida Administrative Code Chapters 62-550, 555 and 560. The Department determines compliance with these regulations.

Minor deficiencies were identified during the survey as described in the enclosed *Schedule of Deficiencies*. Other recommendations are enclosed within the report which do not require a written response unless otherwise stated.

We would appreciate a written response to this report within 30 days of the date of this letter advising us of the actions and time frame you will take to correct the listing noted in the Schedule of Deficiencies. Please address the response to me, with a copy to Mr. McKeown.

If you have any questions regarding the report and/or deficiencies, please contact Cliff McKeown at (850) 488-3704 or e-mail (cliff.mckeown@dep.state.fl.us).

Sincerely,

John H. Pope
Potable Water Section Supervisor

JHP:cm

Enclosures

Sanitary Survey Report
Schedule of Deficiencies
System Map(s)

cc: Franklin County Department of Health (Niles_cyzycki@doh.state.fl.us)
John Pope, Potable Water Section Supervisor (john.pope@dep.state.fl.us
Tom Pratt, NWFWMD (Tom.Pratt@nwfwmd.state.fl.us)

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

SANITARY SURVEY REPORT

COMMUNITY SYSTEMS

SYSTEM AND OWNER INFORMATION

System: Eastpoint Water & Sewer District | County: Franklin | PWS ID #: 1190236

Address: Post Office Box 610 | City: Eastpoint | State/Zip: Florida 32328

Phone: 850-670-8177 | Fax: 850-670-8517 | E-mail: wmshg2000@yahoo.com

Owner: Eastpoint Water and Sewer District | Phone: 850-670-8177

Address: Post Office Box 610 , Eastpoint, Florida 32328

INSPECTION AND CONTACT INFORMATION

Date of this inspection: 8-25-06 | Date of last inspection: 9-05-02

DEP Representative(s): Cliff McKeown

Person(s) Contacted: Hank Garrett

Emergency Number: (850)335-0296 | Cell: (850)653-5214 | Pager: (850) | Other: (850)

CERTIFIED OPERATORS AND CERTIFICATION NUMBER

Mr. Derek Martina, C-6321 (335-0296)
Mr. Hank Garrett, B-7102

DIRECTIONS TO PLANT OR OFFICE (provide general directions to the office and/or plant)

SERVICE AREA

Service Area Characteristics: Municipal System

Population Served: 2252 | Basis: 2.3/conn.

Service Connections: 979 | % Metered: 100

Design Capacity (gallons): 878,000

Design Capacity without best well: 288,000

Storage Capacity: 155,000 | Ave. Day: 273,272

Max. Day (GPD): 448,000 | % Design Capacity: 51

25% Max. Day: 112,000 | % Storage Capacity: 72

PERMANENT SOURCES OF RAW WATER:

☒ Ground* | How Many Wells: 2

☐ Surface** | Source:

☐ Purchased*** | PWS No.:

EMERGENCY MEDIA CONTACT NUMBERS

	NAME	PHONE NUMBER

Television	WCTV	893-6666
Radio FM	WOCY	850-670-8450
Radio FM		
Newspaper	Apalachicola Times	850-653-8868

Disaster Plan ☒ Standby Power Info ☒ Inventories ☐ Other

Ave. Day Percentage of Auxiliary Supply: 32

Auxiliary equipment operated at least monthly? ☐ Yes ☐ No

Any Interconnects ☐ Yes ☒ No

If yes, which systems: _____

Comments: _____

STANDBY POWER REQUIREMENTS

Emergency Preparedness Plan On file: ☒ Yes ☐ No ☐ Not Required

Does plan include the following :

☒ Communication Chart ☐ Written Agreements ☒

TREATMENT IN USE AT THIS PLANT: (CHECK ALL THAT APPLY)

Number of Plants: 1

☒ Aeration	☐ E.D.	☐ Iron Removal	☐ pH Adjustment	☒ Chlorination
☐ Filtration	☐ Lime Softening	☐ T&O Control	☐ Chlorination-Pre	☐ Filt. Hi-Rate
☐ Recarbonation	☐ Settling	☐ Chlorination-Post	☐ Fluoridation	☐ Reverse Osmosis
☐ Zeolite Softener	☐ Coagulation	☐ Orthophosphate	☐ Aqua Mag	☐ Other-Specify

Any additional treatment is needed? _____ For control of what deficiencies? _____

OPERATOR STAFFING REQUIREMENTS

Number of Licensed Operators: 2

Staffing comply with FAC 62-699 ? ☒ Yes ☐ No

Visits per week: 6

PWS I.D. No. 1190236
Date of Survey:

SOURCE: WELL AND PUMP INFORMATION

	Well Number (or name)→	1	2		Comment
	Street location of well (street name)	50 Begonia St	40 Island Dr		
	Year Drilled	1975	1987		
W	Depth Drilled (feet)	200	N/A		
E	Drilling Method	Rotary	N/A		
L	Length, Outside Casing (feet)	170	N/A		
L	Diameter, Outside Casing (inches)	6	12		
	Material, Outside Casing	BI	BI		
D	Type of Strainer	SS	N/A		
A	Depth to Top of Strainer	N/A	N/A		
T	Type of Grout	Cement	N/A		
A	Depth to Static Water Level (feet)	N/A	N/A		
	Normal Suction Lift (working level ft)	N/A	N/A		
P	Pump Type	V.T.	V.T.		
U	Horse Power	15	25		
M	Normal Yield, GPM / Test Yield (GPM)	260	500		
P	Capacity(GPM)	200	410		
R	Protection From Surface Water	Yes	Yes		
O	Is Inundation of Well Possible?	Yes	Yes		
U	Well Ever Been Contaminated?	No	No		
T	Check Valve Present in Line?	Yes	Yes		
I	Proper Venting?	Yes	Yes		
N	Date meter was last calibrated?	2003	2003		
E	Meter diameter	4″	8″		
	Accuracy (+-)	+11.1	+6.3		
A	Auxiliary Capability (if yes, list type)	Generator			
U	Manual or Automatic?	Automatic			
X	Capacity (GPM)	260			
G	Florida Unique ID# (GPS well	AAA5312	AAA5311		

	tag)				
P	GPS latitude N (accuracy≈1m)	29⁰43′57.364″	29⁰44′00.024″		
S	GPS longitude W (accuracy≈1m)	84⁰53′25.348″	84⁰53′14.996″		
Comments:					

PWS I.D. No. 1190236
Date of

TREATMENT

• CHLORINATOR

PLANT NUMBER (OR NAME)→	1			comment
Type of chlorination (if hypo list strength)	Gas			
Condition of Chlorination Equipme	Good			
Capacity (PPD, GPD)	50/50			
Chlorine Feed Rate (PPD, GPD)	20/20			
Max Day Chlorine Usage (GPD)	17#/D			
Low Flow Switch?	N/A			
Adequate Housing and Security?	Yes			
Associated Well(s) (if any)	1 &2			
Auxiliary Power Capability?	Yes-Auto			
O & M Log/Manual Onsite?	Yes			
Chlorine Residual / pH	2.06			
Loss of Vacuum Alarm Telemetry?	Yes			
Loss of Chlorine Alarm?	Yes			
G Auto Switchover	Yes			
Dual System	No			
Evidence of Leaks	No			
A Air-Pack Respirator Adequate?	No			
Ammonia Smells Fresh	Yes			
Chained Cylinders	Yes			
S Fitted Wrench	Yes			
Proper Ventilation	Yes			

Scale Condition	Good			

Spare Parts/Backup Machine Operative? ☒Yes ☐No ☐No Spare Parts Retained/Required More capacity needed? ☐Yes ☒No

Comments: (Emergency Generator tied to Low level alarm in elev. tank)

AERATOR

Type of Aerator: Gravity

Tray Area or Weir Length: 3- 4″ dia trays

Condition of Screens: Good

Bloodworms: No

Condition of aerator: Undersized

Adequate for Fe, H2S control: Yes

COAGULATION

Chemical used

Purpose

Blanket visible

Flocculation good or poor

Settling good?

Carryover

LIME SOFTENING

Quicklime or hydrated

Name of unit

Size and type

Any auxiliary chemicals used

Points of application (in unit)

Nature and abundance of flux

Appearance of sludge blanket

Is settling good?

Excessive carryover

Any filter cementation

Effluent stability

Turbidity in clearwell

Secondary precipitation

Recarbonation type

Sludge recirculation Used

FLUORIDATION

Chemical Used Is Dilution

Strength if Acid

Used(acid)

Corrosion Noted Feeder

Gelling or Plugging

Make and Model

Split Sample Agreement

Sufficient Analysis

Feeder Condition

STABILIZATION

Is pH control Practiced?

Chemical(s) used

FILTERS & FILTRATION

Type of filters

Size and number

Length of filter runs

Can you see filter media?

Clean after backwash?

Are mudballs visible?

Binding?

What is the normal filter rate

What is the usual backwash rate

Capacity of filters

Filters overloaded?

Loss in head gauge present?

At what head loss is BW done?

Cracks and channeling?

Cementation ever occurred?

Where in relation to filtration is stabilization done?

If high rate, what is turbidity at interface

Range of turbidity in effluent

Can you observe algae in filters?

Distance from top of media to trough overflow

REVERSE OSMOSIS

Make and type of units

Pressure required

Auxiliary chemicals

Proportion of waste used to product streams

Quality of effluent

Stabilization

Type of Pre-treatment

Booster pump

Type of membranes

ZEOLITE SOFTENING

Unit mfg. & model

Resin capacity

Disinfection of beds

Grade of salt for regen.

Stability of effluent

Resin prevented from escaping?

Eastpoint Water & Sewer District PWS I.D. No. 1190236
Page five Date of
Survey: August 25, 2006

PUMPS AND PUMP CONTROLS

PUMP CATEGORY	High Service							
PUMP NUMBER→	1	2						
PUMP TYPE	Cent.	Cent.						
MOTOR HP	15	15						
DATE INSTALLED	7-02	7-02						
CAPACITY (GPM)	250@130	250@130						
AUXILIARY CAPACITY?	Yes	Yes						
PROPER SECURITY?	Yes	Yes						
CONDITION OF PUMP	Good	Good						
MAINT. SCHEDULE	Weekly	Weekly						
DATE LAST SERVICED	8-21-06	8-21-06						

STORAGE FACILITIES:

TANK NUMBER→	1	2	Commer
TYPE (GROUND, ELEVATED, HYPO)	Elevated	ground	
YEAR OF CONSTRUCTION	1987	2001	
CAPACITY (GALLONS)	100,000	55,000	
MATERIAL	Steel	GFS*	
GRAVITY DRAIN CAPACITY/DIAMETER	Yes	6″	
OVERFLOW STRUCTURES PROPER?	Yes	incomplete	
BYPASS CAPACITY	100%	unknown	
COVERED/SCREENED OPENINGS	Yes	yes	
PRESSURE GAUGE	N/A	N/A	
ON/OFF PRESSURE (PSI)	N/A	N/A	
HGT. TO BOTTOM OF EL. TANK (FT)	100 43psi	N/A	
HGT. TO MAX. WTR. LEVEL(FT)	125 54psi	N/A	
DATE OF LAST ANNUAL INSPECTION	2005	2005	

YEAR OF LAST 5-YEAR INSPEC	2004	2004	
YEAR OF LAST WASHOUT	2005	2005	

Does system provide fire protection? ☒Yes ☐No Security Adequate? ☒Yes ☐No Low Level Alarm? ☒Ye
☐No
Does current storage capacity comply with requirements in FAC 62-555? ☒Yes ☐No

COMMENTS:

Eastpoint Water & Sewer District PWS I.D. No.
1190236
Page Six Date of
Survey: August 25, 2006

DISTRIBUTION SYSTEM

Material of mains? PVC System looped? semi How many hydrants? 76

Any fire hydrants < 6" lines? ☐Yes ☒No ☐ Unknown Max. pipe diameter 10" Min. pipe diameter 2"

General operation pressure 40-60 psi Lowest pressures ~40psi Location of low pressure Jail

Number of dead ends 32 How many without flush hydrants? 0 Flushing program? weekly

Number of line valves 100+ How often exercised 1/ 2 yrs. Properly Mapped? Yes Properly Marked? No

System Maps Adequate? Marg Any uncleared permits? 1 Any uncleared and in use? No

Percent water loss 13.2 Does the system have reuse? No Comments

CROSS CONNECTION CONTROL

Cross Connection Control Program Meet Requirements? ☐ Yes ☒No Comment:

Testing Frequency? annually Tracking: ☐Hard Copy ☒CPU # of BFDs: 42 Hydrant Meters☐ Lift Stations☐ WWTP☐

Date of Last Audit (commercial or residential): ongoing Name of Certified BFD Tester: Area Commercial Testers

Chlorine & pH	Remote 1	Remote 2	Remote 3	Remote 4
Chlorine Residual	0.47	0.3		
pH				
Location	Old Ferry Dock Rd.	Jail		

COMPLIANCE MONITORING

Compliance Schedule: The following parameters are due during the year shown.

Inorganics	2009	Secondaries	2009	VOCs	2009	Radiologicals	2009
SOCs	2006	Asbestos	2012	TTHMs/HAA5	2006	Pb & Cu	2008

System out of compliance with any of the above parameters?

Testing Equipment & Reagents ☒Adequate ☐Inadequate Comment:

Bacteriological Sampling Plan: ☒Adequate ☐Inadequate

Comment:

Disinfection Byproducts Plan: ☒Adequate ☐Inadequate

Comment:

MANAGERIAL/FINANCIAL

How is the system structured? (municipal) ☒ Yes ☐ No Does the system follow a budget? ☒ Yes ☐ No

Preventative Maintenance Program in place? ☒ Yes ☐ No Is adequate training provided to water system personnel? ☒ Yes ☐ No

Comment: No formal description available

In the space below, give a rough sketch of the flow diagram of the plant, showing all important parts of the plant (not to scale):

Assuming most of the systems already have a diagram, only included is a few new symbols.

(1) Relies on valve cards for locations

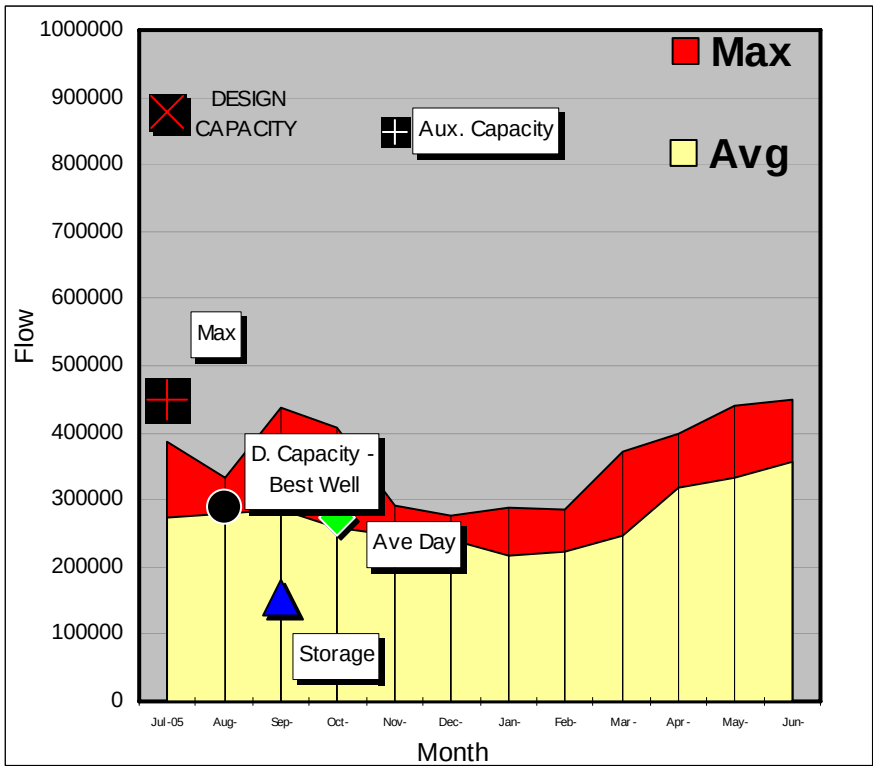
SEE ATTACHED

INSPECTOR'S SIGNATURE Cliff McKeown TITLE ENGINEER SPECIALIST DATE: December 5, 2008

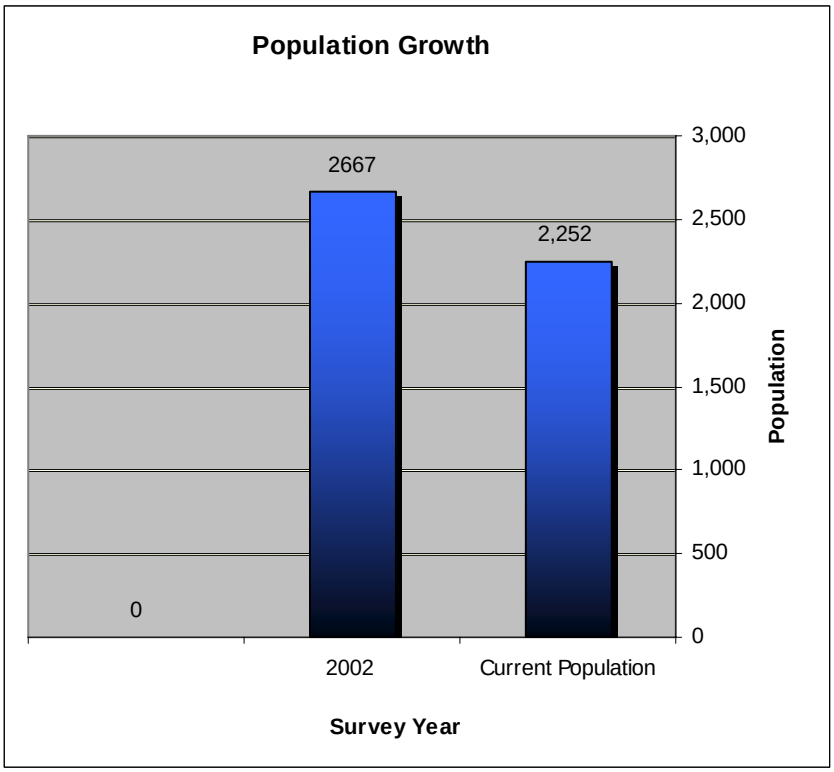
APPROVED BY _____ TITLE BRANCH MANAGER DATE: December 5, 2008

Flow & Capacity and Population Graphs

Eastpoint Water & Sewer District
Survey of August 25, 2006



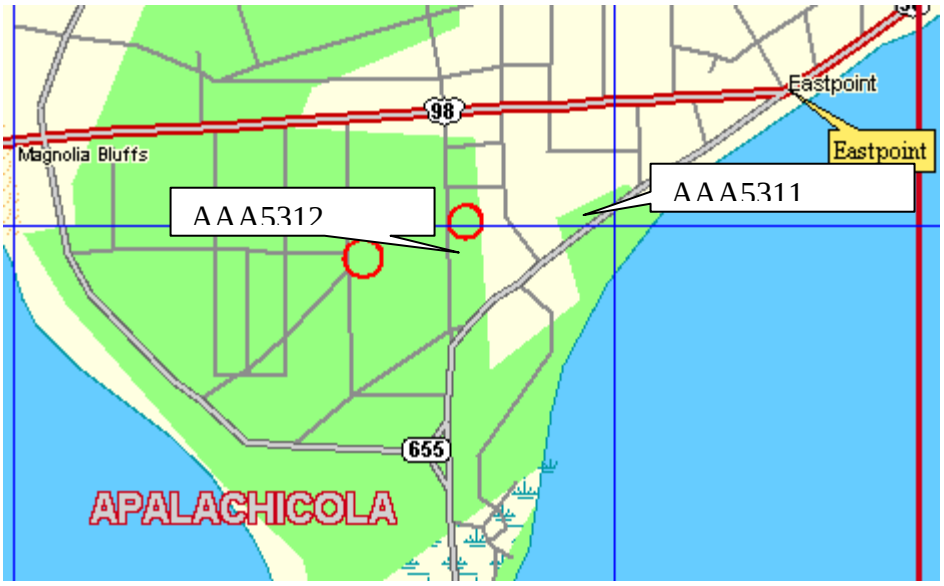
MAX. DAY IS WELL BELOW DESIGN CAPACITY



APPARENT DROP IN POPULATION IS DUE TO A CHANGE IN METHODOLOGY USED TO ESTIMATE POPULATION FROM NUMBER OF CONNECTIONS. US CENSUS BUREAU DATA IS THE BASIS FOR THIS ESTIMATION.

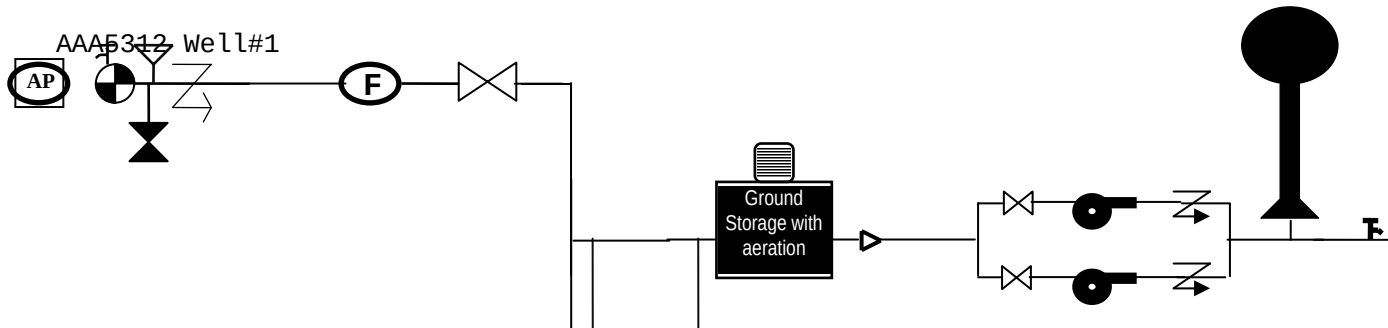
Geographical Information

Eastpoint Water & Sewer District
Survey of August 25, 2006



Plant Schematic

Eastpoint Water & Sewer District
Survey of August 25, 2006



AAA5311 Well#2

Key For Figures

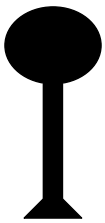
Auxiliary Generator W/Sample Tap

Wellhead W/Sample Tap

Check Valve

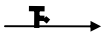
Flow Meter

Chlorinator W/Aeration



High Service Pump

Elevated Storage Tank



Point of Entry

Air Release Valve

Valve (Closed)

Valve (Open)

Ground Storage

Piping

Schedule of Deficiencies

Eastpoint Water & Sewer District
Survey of August 25, 2006

DEFICIENCY 1: CROSS-CONNECTION CONTROL NOT UP TO DATE

REGULATION REFERENCE: FAC Rule 62-555.360

RECOMMENDED ACTION:
The program should be reviewed and compared to the latest standards published by the American Water Works Association. Particular attention must be paid to moderate hazards. Great care must also be taken to make sure all devices are tested annually. Also make sure hydrant meters are properly protected with RP's.

DEFICIENCY 2: FLOW METERS HAVE NOT HAD A RECENT CALIBRATION CHECKS AND BOTH METERS WERE SIGNIFICANTLY OUT OF CALIBRATION AS OF THE LAST TEST.

REGULATION REFERENCE: FAC Rule 62-555.330(4) and 350(2).

RECOMMENDED ACTION:
Repair or replace both meters and contact the Florida Rural Water Association for assistance with obtaining calibration checks. Also note the following schedule based on meter size for follow-up tests.

Meter Testing and Calibration

Under average conditions, the intervals between tests should not exceed the limits as shown below

METER SIZE (IN.)	Years Between Tests
1.5	4
2	4
3	3
4	2
6 OR GREATER	1

DEFICIENCY 3: IMPROPER AIR RELIEF VENT, WELL #2.

REGULATION REFERENCE: FAC Rule 62-555.320(8)(b)2.c.

RECOMMENDED ACTION:
Provide a proper air relief vent (screen) to prevent suction of insects, rodents, or debris within 30 days.

DEFICIENCY 4: OVERFLOW FACILITIES AT THE ELEVATED STORAGE TANK TERMINATE TOO HIGH.

REGULATION REFERENCE: FAC Rule 62-555.330(3)

RECOMMENDED ACTION:

Lower overflow to approximately 18” above ground construct a splash pad and provide proper screening over the outlet.

Recommendations and Remarks

Eastpoint Water & Sewer District
Survey of August 25, 2006

During the inspection it was noted that the auxiliary generator exercises automatically. To insure maximum reliability arrange the exercise schedule to coincide with times of high demand.

Florida Department of Environmental Protection

Tallahassee Branch Office
2815 Remington Green Circle, Suite A
Tallahassee, Florida 32308-1513

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

December 21, 2007

Sent via email
(carolreynolds@gtcom.net)

Ms. Carol Reynolds
Office Administrator
Post Office Box 710
Lanark Village, Florida 32323

Dear Ms. Reynolds:

A sanitary survey of the Lanark Village Water System (PWS ID No. 1190414) was completed on August 9, 2007, by Cliff McKeown, Engineering Specialist. The assistance provided by Wayne Conrad, Victor Causey and you during the inspection was greatly appreciated.

The purpose of this survey is to evaluate the capability of the water system to continually produce safe drinking water. Public water systems in this state are regulated by the Department under the Florida Safe Drinking Water Act as promulgated by Florida Administrative Code Chapters 62-550, 555 and 560. The Department determines compliance with these regulations.

Major deficiencies were identified during the survey as described in the enclosed *Schedule of Deficiencies*. Other recommendations are enclosed within the report which do not require a written response unless otherwise stated.

We would appreciate a written response to this report within 30 days of the date of this letter advising us of the actions and time frame you will take to correct the listing noted in the Schedule of Deficiencies. Please address the response to me.

If you have any questions regarding the report and/or deficiencies, please contact Cliff McKeown at (850) 488-3704 (or e-mail cliff.mckeown@dep.state.fl.us.)

Sincerely,

G. P. Neubauer
Branch Office Manager

GPN:cm
Enclosures

San it ary Survey Re port
Sche dul e of D ef icie ncie s
Syste m Ma p(s)

cc: Franklin County Department of Health (jason_flowersi@doh.state.fl.us)
John Pope, Potable Water Section Supervisor (john.pope@dep.state.fl.us
Angela Chellette, NWFWMD (Angela.Chelette@nwfwmd.state.fl.us)
Cliff McKeown (cliff.mckeown@dep.state.fl.us)

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

SANITARY SURVEY REPORT

COMMUNITY SYSTEMS

SYSTEM AND OWNER INFORMATION

System **Lanark Village Water & Sewer** **County** Franklin **PWS ID #** 1190414

Address Post Office Box 710 , Lanark Village, Florida 32323 **City** Lanark Village

Phone 850-697-3995 **Fax** **E--mail**

Owner Ms. Carol Reynolds, Office Administrator Phone 850-697-3995

Address Post Office Box 710 , Lanark Village, Florida 32323

INSPECTION AND CONTACT INFORMATION

Date of this inspection 8-9-07 Date of last inspection 12-01-04

DEP Representative(s) Cliff McKeown

Person(s) Contacted Wayne Conrad, operator & Victor Causey, Maintenance Cell (850)370-7000

Pager, Cell, or other Emergency Phone Number Cell, 528-2438 (David Curry), Fax, 697-3139

Certified operators and certification number Richard Marks A0004171, Harry Braswell, C0003388

DIRECTIONS TO PLANT OR OFFICE

(provide general directions to the office and/or plant)

SERVICE AREA

Service Area Characteristics Residential System

Population Served 1625 Basis 2.5/conn.

Service Connections 650 % Metered 100

Design Capacity (gallons) 1,080,000

Design Capacity without best well 504,000

Storage Capacity 100,000 Ave. Day 98,057

Max. Day (GPD) 352,000 % Design Capacity 35%

25% Max. Day 88,000 % Storage Capacity 88%

EMERGENCY MEDIA CONTACT NUMBERS

	NAME	PHONE NUMBER
Television	WCTV	893-6666
Radio FM	WTXL	893-1313
Radio AM	Cumulus	201-3000
Newspaper	Tall. Democrat	599-2151

AUXILIARY POWER REQUIREMENTS (62-555.320)

Emergency Preparedness Plan On file: Yes No Not Required

Does plan include the following :

Communication Chart Written Agreements Disaster Plan

Standby Power Info Inventories Other

Ave. Day Percentage of Auxiliary Supply 8.0%

Auxiliary equipment operated at least monthly? Yes No

Any Interconnects Yes No 1194044

If yes, which systems: St. James Bay

Comments: *Does not routinely operate*

PERMANENT SOURCES OF RAW WATER

Ground* How Many Wells 2

Surface** Source 3920

Purchased*** PWS No.

TREATMENT IN USE AT THIS PLANT: (CHECK ALL THAT APPLY)

Aeration E.D. Iron Removal pH Adjustment Chlorination

Filtration Lime Softening T&O Control Chlorination-Pre Filt. Hi-Rate

Recarbonation Settling Chlorination-Post Fluoridation Reverse Osmosis

Zeolite Softener Coagulation Orthophosphate Aqua Mag Other-Specify

Any additional treatment is needed? For control of what deficiencies?

OPERATOR STAFFING REQUIREMENTS

Number of Licensed Operators 2 Staffing comply with FAC 62-699 ? Yes No Visits per week: 6

WELL AND PUMP INFORMATION

	Well Number (or name)	1	2
	Year Drilled	1942	1976
W	**Depth Drilled** (feet)	165’	165’
E	**Drilling Method**	Rotary	Rotary
L	**Length, Outside Casing** (feet)	70’	70’
L	**Diameter, Outside Casing** (inches)	10”	10”
	Material, Outside Casing	Steel	Steel
D	**Type of Strainer**	Cone	Cone
A	**Depth to Top of Strainer**	65’	65’
T	**Type of Grout**	Neat Cement	Neat Cement
A	**Depth to Static Water Level** (feet)	30’	30’
	Normal Suction Lift (working level-ft)	8’	8’
P	**Pump Type**	VT	VT
U	**Horse Power**	25	25
M	**Normal Yield/Test Yield, GPM**	450	420
P	**Capacity** (gpm)	350	350
R	**Protection From Surface Water**	Yes	Yes
O	**Is Inundation of Well Possible?**	No	No
U	**Well Ever Been Contaminated?**	No	No
T	**Check Valve Present in Line?**	Yes	Yes
I	**Proper Venting?**	Yes	Yes
N	**Date meter was last calibrated?**	10-14-04	10-14-04
E	**Meter Diameter**	6”	6”
	Meter Accuracy	+1.0	+5.6

A	**Auxiliary Capability** (if yes, list type)	Generator	
U	**Manual or Automatic?**	Automatic	
X	**Capacity** (GPM)	430 400 810 in tandem	
G	Florida Unique ID# (GPS well tag)	AAA0701 AAA0702	
P	GPS latitude N (accuracy~1m)	29 0 53’30.460” 29	0 53’29.821”
S	GPS longitude W (accuracy~1m)	84 0 34’54.538” 84	0 34’53.523”

Comments: One 8” master meter in addition to that shown. Meters checked but paperwork not available

TREATMENT

- **CHLORINATOR**

PLANT NUMBER (OR NAME)	1	2	3	comment
Type of chlorination (if hypo list strength)	Gas	Gas		
Condition of chlorination equipment	Good	Good		
Capacity (PPD, GPD)	50 PPD	50 PPD		
Chlorine Feed Rate (PPD, GPD)	40 PPD	35 PPD		
Max Day Chlorine Usage (GPD)	4	3.5		
Low Flow Switch?	N/A	N/A		
Adequate Housing and Security?	Yes	Yes		
Associated Well(s) (if any)	1	2		
Auxiliary Power Capability?	Yes	Yes		
O & M Log/Manual Onsite? (1)	Yes	Yes		
Chlorine Residual (mg/L) / pH	2.2			
Loss of Vacuum Alarm Telemetry?	Yes	Yes		
Loss of Chlorine Alarm?	Yes	Yes		
G Auto Switchover	Yes	Yes		
Dual System	Yes	Yes		
Evidence of Leaks	No	No		
A Air-Pack Respirator Adequate?	Yes	Yes		
Ammonia Smells Fresh	Yes	Yes		
Chained Cylinders	Yes	Yes		
S Fitted Wrench	Yes	Yes		
Proper Ventilation	Out	Out		
SCALE CONDITION	Good	Good		

Spare Parts/Backups Operative? Yes No Spare Parts Not Retained **(2)** More capacity needed? Yes No

Comments: **(1)** Add Po4 measurements to O&M log at least twice per week. **(2)** Spare parts are somewhat limited, recommend evaluation of needs and procuring indicated equipment.

- **AERATOR**

Type of Aerator

Tray Area or Weir Length

Condition of Screens

Bloodworms Condition of aerator

Adequate for Fe, H2S control

- **COAGULATION**

Chemical used
Purpose

Blanket visible Flocculation good or poor
Settling good? Carryover

- **LIME SOFTENING**

Quicklime or hydrated

Name of unit

Size and type

Any auxiliary chemicals used

Points of application (in unit)

Nature and abundance of flux

Appearance of sludge blanket

Is settling good? Excessive carryover

Any filter cementation

Effluent stability

Turbidity in clearwell Secondary precipitation

Recarbonation type

Sludge recirculation Used

- **FLUORIDATION**

Chemical Used Is Dilution

Strength if Acid Used(acid)

Corrosion Noted Feeder

Gelling or Plugging

Make and Model

Split Sample Agreement

Sufficient Analysis

Feeder Condition

- **STABILIZATION**

Stability Index of effluent

Is pH control Practiced?

Chemical(s) used

- **FILTERS & FILTRATION**

Type of filters

Size and number

Length of filter runs

Can you see filter media? Clean after backwash?

Are mudballs visible? Binding?

What is the normal filter rate

What is the usual backwash rate

Capacity of filters Filters overloaded?

Loss in head gauge present?

At what head loss is BW done?

Cracks and channeling? Cementation ever occurred?

Where in relation to filtration is stabilization done?

If high rate, what is turbidity at interface Range of turbidity in effluent

Can you observe algae in filters?

Distance from top of media to trough overflow

- **REVERSE OSMOSIS**

Make and type of units

Pressure required

Auxiliary chemicals

Proportion of waste used to product streams

Quality of effluent Stabilization

Type of Pre-treatment Booster pump

Type of membranes

- **ZEOLITE SOFTENING**

Unit mfg. & model

Resin capacity Disinfection of beds

Grade of salt for regen.

Stability of effluent Resin prevented from escaping?

PUMPS AND PUMP CONTROLS

PUMP CATEGORY

PUMP NUMBER

PUMP TYPE

MOTOR HP

DATE INSTALLED

CAPACITY (GPM)

AUXILIARY CAPACITY

PROPER SECURITY

CONDITION OF PUMP

MAINT. SCHEDULE

DATE LAST SERVICED

STORAGE FACILITIES:

TANK NUMBER	1
TYPE (GROUND, ELEVATED, HYPO)	Elevated
YEAR OF CONSTRUCTION	1977
CAPACITY (GALLONS)	100,000
MATERIAL	Steel
GRAVITY DRAIN CAPACITY DIAMETER	2”
OVERFLOW STRUCTURE PROPER?	No
BYPASS CAPACITY	100%
COVERED/SCREENED OPENINGS	Yes
PRESSURE GAUGE	Yes
ON/OFF PRESSURE (PSI)	N/A
HGT TO BOTTOM OF EL. TANK	113’
HGT TO MAX. WTR. LEVEL (FT)	138’
DATE OF LAST INSPECTION (5 YEAR)	5-23-06
DATE OF LAST INSPECTION (ANNUAL) (1)	6-07

Does system provide fire protection? Yes No Security Adequate? Yes No

Does current storage capacity comply with requirements in FAC 62-555? No

Comments: **(1)** Last inspection notes that vent screens are needed and that overflow needs extending to ground level.
¼ max. of storage is not met, however this is due to a water main leak which may misrepresent volume needed.

DISTRIBUTION SYSTEM

Material of mains? Asbestos/Cement, PVC System looped? Yes How many hydrants? Unknown
Any fire hydrants < 6" lines? Yes No Unknown Max. pipe diameter 12" Min. pipe diameter 2"
General operation pressure 52 PSI Lowest pressures Unknown Location of low pressure Unknown
Number of dead ends 6 How many without flush hydrants? 0 Flushing program? Monthly (1)
Number of line valves Unknown (2) How often exercised (3) Properly Mapped? Marginal (3) Properly Marked? No (3)
System Maps Adequate? Marginal (3) Any uncleared permits? Yes Any uncleared and in use? Yes
Percent water loss 2% (July 07) Does the system have reuse? No Comments

CROSS CONNECTION CONTROL

Cross Connection Control Program Meet Requirements? Yes No Comment: See deficiency in Attachment 3
Testing Frequency? Annual **T** racking: Hard Copy CPU # of BFDs: 1 Hydrant Meters Lift Stations WWTP
Date of Last Audit (commercial or residential): In progress Name of Certified BFD Tester: Mainor Moore

Chlorine & pH	**Remote 1**	**Remote 2**	**Remote 3**	**Remote 4**
Chlorine Residual	1.5			
pH				
Location	West			

COMPLIANCE MONITORING

Compliance Schedule: The following parameters are due during the year shown.

Nitrate/Nitrite	2007	Inorganics	2009	Secondaries	2009
VOCs	2009	Pb & Cu	2008	TTHMs/HAA5	2007
Radiologicals	2009	SOCs	2009	Asbestos	2012

System out of compliance with any of the above parameters? TTHMs/HAA5

Testing Equipment & Reagents Adequate Inadequate Comment:

Bacteriological Sampling Plan: Adequate Inadequate Comment:

In the space below, give a rough sketch of the flow diagram of the plant, showing all important parts of the plant (not to scale):

(1) When flushing flow is measured and used for comparison to water sold.
(2) Eight valve clusters have been located and documented
(3) All work on valves and system mapping has lagged behind other efforts, see compliance status section for more detail.

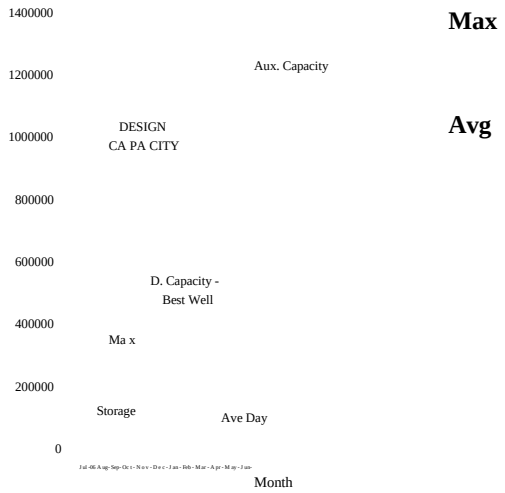
See attached

SEE ATTACHED SCHEDULE OF DEFICIENCIES

INSPECTOR'S SIGNATURE Cliff McKeown TITLE ENGINEER DATE: December 21, 2007
CLIFF MC KEOWN

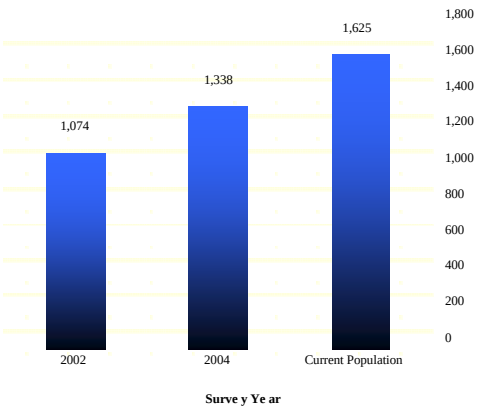
APPROVED BY G. P. NEUBAUER TITLE BRANCH MANAGER DATE:

FLOW CHART AND POPULATION GRAPH
Lanark Village Water System
August 9, 2007 Sanitary Survey



ADEQUATE PRODUCTION AND AUXILIARY CAPACITY IS SHOWN ABOVE.

Population Growth



CONSISTENT POPULATION GROWTH NOTED SINCE 2002

SYSTEM MAPS

Lanark Village Water System

August 9, 2007 Sanitary Survey

SYSTEM SCHEMATIC

Lanark Village Water System
August 9, 2007 Sanitary Survey

P

AAA0701
Inside Well #1

C

F **F**

Auxiliary Generator **AP** **F**

F **C**

AAA0702
Outside Well #2

P

KEY FOR FIGURES

Wellhead W/Sample Tap Check Valve

C Chlorinator Valve (Open)

Valve (Closed) Aqua-mag feeder **P**

Elevated Storage Tank Flow Meter **F**

Point of Entry W/Sample Tap

DEFICIENCIES

Lanark Village Water System
August 9, 2007 Sanitary Survey

1. Haloacetic Acids and Total Trihalomethanes exceed their maximum contaminant levels.

REGULATION REFERENCE: 62-550.310(3)(b)

RECOMMENDED ACTION:
Continue to work toward meeting milestones listed in the 1st amended consent order.

2. Cross-connection control program is not being implemented.

REGULATION REFERENCE: FAC Rule 62-555.360

RECOMMENDED ACTION:
The system audit has been completed what now remains is to require compliance with Lanark's program. This must be begun within 30 days.

3. Overflow facilities at the elevated storage tank terminate too high and vent screens need attention.

REGULATION REFERENCE: FAC Rule 62-555.330(3)

RECOMMENDED ACTION:
Immediately repair the vent screens.

Lowering the overflow pipe has been designated a lower priority than other deficiencies. Now that a loan is near monies should be set aside to complete this task.

4. Valve location, testing, and maintenance does not conform to rule requirements.

REGULATION REFERENCE: FAC Rule 62-555.330(3)

RECOMMENDED ACTION:

Valve location has not kept pace with other needed corrections. Recall that system mapping, valve ties, as well as valve exercising and maintenance are all connected. Make a commitment to locate a certain number of valves each month, exercise them place them on the system map. Submit a copy of this commitment to Cliff McKeown along with the response to this report.

5. Recently, some problems have been encountered with the process used to determine if issuance of Precautionary Boil Water Notices are required.

REGULATION REFERENCE: FAC Rule 62-555.330(3)

RECOMMENDED ACTION:
Guidance issued by the Department of Health was distributed on the day of the inspection. It is expected that no further problems will occur in this area.

6. Flow Meter calibration checks have been performed however documentation has not been provided.

REGULATION REFERENCE: 62-555.330(4).

RECOMMENDED ACTION:
Submit meter test sheets within 15 days.

LANARK VILLAGE

Water & Sewer District

Phone (850) 697-3995
Post Office Box 710
Lanark Village, Florida 32323

September 21, 2007

G. P. Neubauer
Branch Office Manager
Florida Department of Environmental Protection
2815 Remington Green Circle, Suite A
Tallahassee, FL 32308-1513

RE: Sanitary Survey Deficiencies for the Lanark Village Water System, PWS ID No. 1190414

Dear Mr. Neubauer:

The Lanark Village Water System recently underwent a Sanitary Survey with Cliff McKeown. Please review the District's responses to the Schedule of Deficiencies.

1. **Haloacetic Acids and Total Trihalomethanes exceed their maximum contaminant levels.** Sterling Carroll, P.E., with the Florida Rural Water Association was selected as the District's engineer. He prepared and presented the Preliminary Engineering Report to the LVWSD Board of Commissioners at the September 27, 2007 Board Meeting. Mr. Carroll also presented a Rate Study and the application for funding, which is to be completed September 25, 2007.
2. **Flow Meter calibration checks have been performed however documentation has not been provided.** Documentation has been received by the District and forwarded to Cliff McKeown.
3. **Cross-connection control program is not being implemented.** A general letter to the public announcing the Cross-Connection program was mailed to all District customers October 26, 2006. The Cross-Connection letters for the "high hazard" customers were mailed August 30, 2007, giving them 30 days from the day they received the letter to either install a RPZ device or properly retire the well. The customers are complying with the request.
4. **Overflow facilities at the elevated storage tank terminate too high and vent screens need attention.** A call has been made to Utility Services Company to have the vent screens repaired immediately. The service tech will call Carol Reynolds Monday, September 24, 2007. Utility Services Company has the service contract on the water tower and performed the annual inspection June 6, 2007.
5. **Valve location, testing, and maintenance does not conform to rule requirements.** Victor Causey, the Field Manager, has committed to locate a minimum of five valves per month, exercise them, and place them on the system map. A signed copy of this commitment will be sent along with a copy of this response to Cliff McKeown.
6. **Recently, some problems have been encountered with the process used to determine if issuance of Precautionary Boil Water Notices are required.** On the day of the inspection, August 9, 2007, Cliff McKeown presented a public workshop regarding Precautionary Boil Water Notices to the Lanark Village Water & Sewer District Board and its employees. Mr. McKeown distributed guidance issued by the Department of Health and left the CD version of the

presentation at the District Office for review. Mr. McKeown also appointed Carol Reynolds as the person who makes the decision to call for a Precautionary Boil Water Notice. It is expected by Mr. McKeown, the District Board, and its employees that no further problems will occur in this area.

If you have any questions or need additional information, please contact me or Carol Reynolds at 850-697-3995.

Sincerely,

Barbara L Rohrs

Barbara Rohrs, Chairman
Lanark Village Water & Sewer District Board of Commissioners

cr

cc Franklin County Department of Health (jason_flowersi@doh.state.fl.us)
John Pope, Potable Water Section Supervisor (john.pope@dep.state.fl.us)
Angela Chellette, NWFWMD (Angela.Chelette@nwfwmd.state.fl.us)
Cliff McKeown (cliff.mckeown@dep.state.fl.us)

GENERAL RECOMMENDATIONS

Lanark Village Water System
August 9, 2007 Sanitary Survey

A. Recently unsafe working conditions were observed during a water main repair. The Florida Trench Safety Act requires certain safety conditions to be met when working in excavations. This material should be reviewed and included in Lanark Village's day to day routine. Additionally, consideration should be given to an overall safety program.

B. Several distribution system extensions appear to be in use without final approval from the Department. Be advised that water may be used for a permitted project only for the purpose of testing the new system of pipes and water may not be served to regular customers.

CONSENT ORDER COMPLIANCE STATUS
Lanark Village Water System
August 9, 2007 Sanitary Survey

From the original Consent Order (OGC FILE NO. 06-1471-19-PW)

ORDERED:
5. Responden t shall comply with the following corrective actions within the stated time periods:

h. Within 60 days of the effective date of this Consent Order, Respondent shall establish a routine cross-connection control program to detect and pr event cross-connections that create or may create an imminent and substantial danger t o public health. This program shall include a written plan that is developed using accepted practices of the American Water Works Association as set forth in the reference documents cited in Rule 62-555.330(6), Fla. Admin. Code.

The effective date of this consent order is September 11, 2006.

i.Within 90 days of the effective date of this Consent Order, Respondent shall submit a completed audit of each service connection. The audit shall indicate the address, date of inspection, hazard, if any, identified, and the type of backflow prevention device required.

This requirement has generally been met.

j.Within 90 days of the effective date of this Consent Order, Respondent shall complete installation of all required backflow prevention devices on those connections identified by the audit's findings as constituting a potential health hazard. Within 180 days o f the effective date of this consent order Respondent shall complete installation of devices on the remaining locations requiring backflow protection.

This milestone has not been met. The final due date (+ 180 days) was on or near March 11, 2007.

k. Immediately upon the effective date of this Consent Order, Respondent shall insure that a certified backflow technician tests all devices upon instal lation and annually thereafter. Within the following 60 days of the effective date of this Consent Order, Respondent shall submit to the Department test results from all existing backflow prevention devices.

This condition has been met but only because 1 device has been installed. Note that upon completing condition j. above reports must be submitted to the Department.

l.Within 90 days of the effective date of this Consent Order, Respondent shall establish and implement a valve maintenance program in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. This program shall include valve locating, marking, exercising, plotting, and logging each exercise event. Within the following 90 days, Respondent shall exercise each valve and note the condition of each in a preventative maintenance manual.

This Items was due on November 11, 2006. This item is still outstanding.

m. Within 60 days of the effective date of this Consent Order, Respondent shall ensure auxiliary power sources are run under load monthly, in accordance with Rule 62-555.350(2), Fla. Admin. Code.

This Item satisfactorily completed.

n. Within 60 days of the effective date of this Consent Order, Respondent shall have the water plant flow meters tested for accuracy as recommended by American Water Works Association AWWA Standards C704-02, Section A.6 and in accordance with Rule 62-555.350(2) Fla. Admin. Code and Respondent shall submit documentation of the accuracy of the meters to the Department. Respondent shall have the meters tested for accuracy periodically as recommended by AWWA Standards C704-02.

This item cannot be defined as complete until required documentation is submitted. See deficiency 2.

o. Within 60 days of the effective date of this Consent Order, Respondent shall submit a plan to the Department describing the actions necessary to bring the elevated tank's overflow down to an elevation between 12 and 24 inches above the ground surface and discharge over a drainage inlet structure or splash plate, in accordance with 62-555.330 Fla. Admin. Code.

See deficiency 4.

p. Within 120 days of the effective date of this Consent Order, Respondent shall implement the plan noted in paragraph 5.o.

See deficiency 4.

CONSENT ORDER COMPLIANCE STATUS - continued
Lanark Village Water System
August 9, 2007 Sanitary Survey

From the First Amended Consent Order 06-1471-19-PW

ORDERED:
3. Responden t shall comply with the following actions within the stated timeframes:

a. Paragraph 5. a. of the Original Order shall be amended and read as follows:
Within 450 days of the effective date of this First Amended Consent Order, Respondent shall retain the services of a Florida-registered professional engi neer to evaluate the system and submit an application, along with any required application fees, to the Department for a permit to construct any modifications needed to address the MCL violation(s).

This condition has been met with the selection of Mr. Sterling Carroll, P.E. of the Florida Rural Water Association.

The application required must be submitted to the Department on or before December 25, 2007.

Paragraphs b,c and d below have due dates based upon the submittal date note in paragraph a. above.

b. Paragraph 5. b. of the Original Order shall be amended and read as follows:
The Department will review the application submitted pursuant to paragraph 3 a. above. In the event additional information, modifications or specifications are nece ssary to process the application, the Department shall issue a written request for information ("RFI") to Respondent for such information. Respondent shall accordingly submit the requested information in writing to the Department within 15 days of receipt of the request. Resp ondent shall provide all information requested in any additional RFIs issued by the Department within 15 days of receipt of each request. Within 60 days of the date the Department receives the application pursuant to paragraph 3a. above, Respondent shall provide all information nec essary to complete the application.

c.Paragraph 5. c. of the Original Order shall be amended and read as follows:
Within 270 days of issuance of any required permit(s), Respondent shall compl ete the modifications approved pursuant to the permit(s) issued in accordance with pa ragraphs 3a. and 3b. above, and submit to the Department the engineer's certification of completion of construction, along with all required supporting documentation. Respondent shall receive written Department clearance prior to placing the system modifications into service.

d. Paragraph 5. f. of the Original Order shall be amended and read as follows:
Within 780 days of the effective date of this First Amended Consent Order, Respondent shall complete all corrective actions needed to resolve the MCL exceedances and submit written certification of completion to the Department for all modifications.

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STAFF REPORT

TO: Governing Board

FROM: Regulatory Division

DATE: October 25, 2005

SUBJECT: Request for Modification and Renewal of Individual Water Use Permit 19830101
Individual Water Use Permit Application No. I06612

Applicant: Lanark Village Water and Sewer District

Location: Lanark Village
Franklin County, Permit Area B
Section 7, Township 7 South, Range 3 West
Section 14, Township 7 South, Range 4 West

Use: Public Supply

Water Source: Floridan Aquifer

Facility:

ID No.	Florida Unique ID	Diameter (Inches)	Total Depth (Feet)	Cased Depth (Feet)	Pump Capacity (GPM)	Status
LVWSD #1	AAA0701	10	165	76	400	Existing
LVWSD #2	AAA0702	10	158	76	400	Existing
LVWSD #3	To be determined	10	165	65	400	Proposed

Capacity: Existing: 800 Gallons per Minute; 1,152,000 Gallons per Day
Proposed: 1,200 Gallons per Minute; 1,728,000 Gallons per Day

Withdrawal Information:

Water Use Totals	Permitted	Use	Requested	Recommended
Average Day (GPD)	124,000	82,213	125,000	125,000
Maximum Day (GPD)	265,000	236,000	265,000	265,000
Maximum Month (Gal)	5,320,000	3,449,002	5,320,000	5,320,000

Staff Evaluation:

The Lanark Village Water and Sewer District (LVWSD) requests to renew Individual Water Use Permit No. 19830101 to withdraw water from two ten-inch diameter Floridan aquifer wells for public supply use. They also request continued authorization to construct an additional ten inch diameter well that was approved in the previous permit application. The proposed modification requests a slight increase of the permitted average daily use. The applicant has complied with the conditions of the Permit.

Pumping records indicate LVWSD has experienced only a 1.43 percent increase in water use since 2000, but extensive growth is anticipated in coastal Franklin County in the foreseeable future. The applicant is requesting only a small increase in the average daily amount at this time as it anticipates additional water becoming available through increases in system efficiency. Previously, LVWSD had exceedingly high water loses due to leaks and incorrect metering. During the past permit duration, LVWSD undertook major transmission line repairs and replacement, instituted a program to audit individual meters and revised the water use rate structure.

LVWSD is to be commended for its water conservation efforts to date. However, it is imperative that LVWSD implement additional measures. Water losses, while significantly reduced, continue to exceed twenty percent and the daily use ratio has been high for the past two years. Both represent an inefficient use of the resource that must be timely addressed. LVWSD has committed to hiring a full-time water operator, instituting a rigorous leak detection program, and continuing its meter audit program. Additionally, the permit will be conditioned to require LVWSD implement a number of other water conservation measures.

Conclusions and Staff Recommendations:

It is the determination of the staff that the water use amounts recommended, as conditioned, are reasonable-beneficial, consistent with the public's interest, and will not harm the water resources of the area or interfere with existing legal users. This determination has been made according to provisions of Chapter 373, Florida Statutes, and Chapter 40A-2, Florida Administrative Code.

The staff recommends that the applicant be granted an Individual Water Use Permit for an annual average daily withdrawal of 125,000 gallons, a maximum daily withdrawal of 265,000 gallons, and a maximum monthly withdrawal of 5,320,000 gallons. The staff also recommends that the permit's expiration date be December 1, 2010 and that the permit be conditioned as per the terms and Standard Conditions of the permit document (NWFWMD Form No. A2-E), and the following Specific Conditions:

1. The Permittee shall include the Individual Water Use Permit number and shall reference each well by its Florida Unique Identification Number (e.g., AAA###) on all submittals when corresponding with the District.

2. The Permittee shall install an in-line totaling flow meter on each newly constructed well and maintain, in working order at all times, the totalizing flow meters of all Public Supply wells.

3. The Permittee shall record daily the data required on the Water Use Summary Reporting Form NWFWMD A2-I for each Public Supply well and shall submit copies by January 31 of each year, even if no water is used. At the time of submittal, an estimate of the "unaccounted for water" during the preceding year shall be provided including the amounts of water withdrawn from the Floridan aquifer, the amounts of water billed to customers, and the amounts unaccounted for due to leaks, line breaks, inaccurate meters, unmetered users, line flushing, etc. The Permittee, if preferred, may submit the report electronically by downloading the correct form from the District website, filling it out properly, and e-mailing it to compliance@nwfwmd.state.fl.us. The report for the year 2005 is due by January 31, 2006.

4. The Permittee, by May 31 and November 30 of each year, shall report water quality sample results from Public Supply well AAA0701 (LVWSD #1), and, following placement into service, the proposed supply well LVWSD #3. The samples shall be collected during the first two weeks of the months of April and August and analyzed for sodium, chloride, specific conductance, and total dissolved solids. Prior to sampling, the Permittee shall purge at least three well volumes from the well, and shall report with the test results, the purging duration, volume and rate used. The Permittee, if preferred, may submit the reports electronically by e-mailing the data to compliance@nwfwmd.state.fl.us.

5. The Permittee shall refine its present rate structure to promote water use efficiency and discourage waste. Any refinements shall take into consideration the water use characteristics of its service area and provide financial incentives to customers to conserve and use water efficiently. Adoption of a conservation oriented rate structure shall be considered as part of this requirement. The Permittee, by January 31 of each year, shall submit a copy of the present rate structure to the District and report to the District its findings and any action taken on this issue to promote water use efficiency.

6. The Permittee shall adopt, within their District a Xeriscape and Irrigation Efficiency Policy limiting irrigation to no more than two days per week during off-peak pumping hours between 4:00 p.m. and 10:00 a.m. The Permittee, by January 31 of each year, shall provide a progress report to the District including documentation of the actions undertaken.

7. The Permittee shall actively promote the adoption, by Franklin County, of a Xeriscape and Irrigation Efficiency Ordinance. The Permittee, by January 31 of each year, shall provide a progress report to the District including documentation of the actions undertaken.

8. The Permittee shall continue the comprehensive public education and information campaign to promote water conservation and efficiency. The campaign shall, at least, consist of newspaper notices and articles, periodic mail-outs to customers and the posting of signs in the rooms of rental properties. The campaign shall be oriented to emphasize the program being implemented and water conservation in general. The campaign shall be designed to regularly reach permanent and part-time residents and tourists. The Permittee, by January 31 of each year, shall provide a status report, including documentation, on the implementation of the required actions within its service area, an update on any actions undertaken and success achieved.

9. The Permittee shall mitigate any unexpected impacts attributable to the LVWSD's withdrawals which interfere with any existing legal users of water or harm the resource. In the event of such an occurrence, LVWSD shall provide a service connection to the impacted user or otherwise mitigate the impact. The Permittee shall report to the District the occurrence of any such impacts and shall identify the action undertaken to address the impacts.

10. The Permittee shall actively participate in any coordinated effort to investigate and develop a regional water supply system for southern Franklin County.

PERMIT MAILOUT ENCLOSURES: WATER USE SUMMARY REPORTING FORM A2-I
WATER RATE PAMPHLET
WATER CONSERVATION PAMPHLET
XERISCAPE PAMPHLET

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STAFF REPORT

TO: Governing Board

FROM: Regulatory Division

DATE: October 31, 2001

SUBJECT: Request for Modification of Individual Water Use Permit 19860066
Individual Water Use Permit Application No. I06045

Applicant: City of Apalachicola

Location: City of Apalachicola, Franklin County, Permit Area B
Section 1; Township 9 South; Range 8 West

Use: Public Supply

Water Source: Floridan Aquifer

Facility:

Well Number	Florida Unique ID	Diameter (in.)	Pump Capacity (gpm)	Total Depth (ft.)	Cased Depth (ft.)	Status
CA #2*	AAA5310	6	250	434	400	Existing**
CA #3	AAA5296	12	500	480	300	Existing**
CA #4	AAA5295	12	600	400	300	Existing**
CA #5	To Be Assigned	12	500	402	326	Proposed***
CA #6	To Be Assigned	12	500	402	326	Proposed
CA #7	To Be Assigned	12	500	402	326	Proposed

*Back-up supply well ** To be abandoned. ***This well has been constructed as part of a multi-well aquifer test.

Capacity: Existing: 1,350 Gallons per Minute; 1,944,000 Gallons per Day
Proposed: 1,500 Gallons per Minute; 2,160,000 Gallons per Day

Withdrawal Information:

Water Use Totals	Authorized	Present*	Requested**	Recommended
Average Day (GPD)	727,000	675,000	796,000	730,000
Maximum Day (GPD)	1,310,000	961,000	1,433,000	1,314,000
Maximum Month (Gal)	28,350,000	27,081,000	31,000,000	28,500,000

*Pumping reports submitted by the applicant for the year 2000. **Includes a 10 percent "safety factor" over actual projected needs.

Background Information and Applicant's Modification Request:

The City of Apalachicola is located in southwestern Franklin County on a peninsula bounded to the north by the Apalachicola River and to the south by Apalachicola Bay. The applicant's service area encompasses approximately four square miles. The City's municipal public supply system obtains water from three Floridan aquifer wells. Two 12-inch diameter wells (CA #3 and CA #4) provide the primary supply of water. A six-inch diameter well (CA #2), has been used for emergency back-up. The existing permit allows for average daily, maximum daily, and maximum monthly withdrawals of 727,000 gallons, 1,310,000 gallons, and 28,350,000 gallons, respectively.

The City has historically experienced problems with its wells, pumps, transmission lines and storage facilities. A large portion of the problems are attributed to the age of the system and corrosion of iron pipes. Also, the ground water withdrawn has consistently exceeded the established Maximum Contaminant Level for total dissolved solids (TDS) of 500 mg/L. It has been reported, that the consistently high TDS and hardness result in drinking water that is "undesirable from a standpoint of taste and odor". In the past, the Florida Department of Environmental Protection has expressed concerns to the

District that the elevated levels of TDS, sodium and chloride in the water system poses a potential health problem.

The City has applied for a renewal and modification of Individual Water Use Permit No. 19860066. The applicant is requesting authorization to construct three, new Floridan aquifer wells to the west of the existing well field and to increase the permitted amounts. The City has conducted a comprehensive analysis of the potential impacts to the Floridan aquifer from the proposed new wells and increased withdrawals. Of particular concern to the District is the historical evidence that saltwater intrusion impacted the applicant's Floridan aquifer wells.

Since the most recent permit issuance in March, 2000, the applicant has not complied with several of the permit conditions. The City, for example, has failed to submit water quality data as required, the water conservation and efficiency element of a Water Resource Master Plan, or evidence that a system to account for water losses has been developed. Each of these requirements will be addressed in the conditioning of the proposed permit and close monitoring of the City's compliance implemented.

Staff Evaluation:

The City of Apalachicola projects, for at least the next seven years, that its average daily water use demand will increase at a rate of one percent per year This rate of growth is considered reasonable. The City's average daily demand in the year 2000 was approximately 675,000 gallons. Using this amount and the projected one percent per year rate of increase, the applicant's average daily water use demand in the year 2008 will be 730,000 gallons. This amount compares favorably with the water use projections provided by the City in the application. However, the average daily amount requested by the applicant (796,000 gallons) is considerably above the actual projected demand. The applicant based the requested amount on the projected demand plus a "safety factor" of 10 percent. This multiplication factor represents a banking of water which is prohibited by Chapter 373, Florida Statute, and 40A-2, Florida Administrative Code. Staff considers the projected average daily demand of 730,000 gallons to be a reasonable and supportable estimate of the City's 2008 water use demand.

The City projects its maximum daily and maximum monthly demands for the year 2008 to be 1.303 million gallons and 28.224 million gallons, respectively. These amounts reflect a peak day ratio of 1.8 and a peak month ratio of 1.3. The peak day ratio is slightly high based on the City's pumping during the last two years. However, this ratio will be used considering the potential for unusually high peak day demand as the City undertakes its planned upgrade of the water system. The peak monthly ratio compares favorably with the City's historical pumping and with published information. Using the 2008 average daily demand of 730,000 gallons and the identified peak use ratios, staff projects the City's 2008 maximum daily and maximum monthly demands to be 1.314 million gallons and 28.5 million gallons, respectively.

Ground Water Impacts:

Availability of water from the Floridan aquifer, the main source of potable water in southern Franklin County, is relatively low. The coastal area of Franklin County, for water supply planning purposes, has been identified by the District as an Area of Special Concern. This designation was established for areas where there exist the potential for future water supply problems, and close examination of both regional and locally-available water resources is warranted.

The City lies within the Apalachicola Embayment where the availability of water from the Floridan aquifer is constrained by such factors as low transmissivities and poor water quality at depth. The City is affected by the water supply problems and limitations that are associated with the embayment. The low transmissivity, increasing demands and the close proximity of the City's existing and proposed wells to Apalachicola Bay and River, raises concern over the potential for saltwater intrusion.

Long-term records of Floridan aquifer chloride data are available for the Pavillion well in Apalachicola. Between 1964 and 1989, water levels in this well declined about two feet and the chloride concentration rose from 630 mg/L to 880 mg/L. This well is approximately 50 feet deeper than the City's deepest well CA #3 (total depth 480 feet) and is located closer to the coast. The historical increase in chloride levels in the Pavillion well and the known water quality problems associated with the City's production wells (elevated TDS, sodium and chloride) are indications of declining water quality in the aquifer due to saltwater intrusion.

The City's agent under took an effort to determine the viability of the proposed wellfield and the potential harm it posed to the resource and existing users. The agent performed a detailed investigation of the

hydrogeologic framework, water levels, water quality, and hydraulic parameters of the Floridan aquifer beneath the proposed well field. It is estimated that at least sixteen users of the Floridan aquifer are located within one mile of the proposed well field.

The first phase of the investigation involved the construction of a test/production well (APAL-1) into the upper 300 feet (ft) of the Floridan aquifer. The open hole portion of the well was extended deeper for the specific purpose of determining the depth at which water quality beneath the well field degraded. Highly mineralized water was encountered at a depth of approximately 615 ft, below land surface (bls). The well was then plugged back to a depth that it could be used as a production well. A 72-hour multi-well aquifer test was performed using two existing wells open to the same zone as the test/production well and one shallow observation well constructed into the surficial-aquifer.

Results of this investigation was incorporated into both ground-water flow and solute-transport models of the area. The ground-water flow model was used to predict drawdowns in the Surficial and Floridan aquifers in response to the proposed pumping of the new well field. The solute-transport model was used to evaluate the potential for salt-water upconing beneath the proposed well field in response to the proposed withdrawals.

Hydrogeologic Framework

The Surficial aquifer, the uppermost aquifer at the project site, extends to a depth of about 30 ft, bls. The Surficial aquifer is underlain by the intermediate confining unit extending to an approximate depth of 225 ft, bls. This is followed by the Intermediate aquifer extending to depth of about 290 ft, bls. The Intermediate aquifer is separated from the Floridan aquifer by a low-permeability dolosilt unit that acts as a semiconfining unit to an approximate depth of 315 ft, bls.

The Floridan aquifer at the project site is divided into three zones. The upper 300 ft of the Floridan aquifer consists of an upper and lower permeable zone separated by a zone of relatively low permeability. The upper permeable zone extends from 315 ft to about 400 ft, bls. The relatively impermeable zone extends from 400 to about 585 ft, bls. The lower permeable zone extends from approximately 585 ft, bls, to an unknown depth.

Observed Water Levels and Water Quality

Water levels in the Floridan aquifer at the site of well APAL-1 increased with depth, ranging from 7.0 to 8.75 ft, mean sea level (msl). Chloride concentration in the Floridan aquifer at a depth of approximately 340 ft, bls, was approximately 35 milligrams per liter (mg/l). Chloride concentrations remained relatively constant to a depth of approximately 584 ft, bls, where a concentration of 160 mg/l was observed. Between 584 and 615 ft, bls, chloride concentration increased abruptly from 160 mg/l to 2,200 mg/l. The chloride concentration of sea water is normally about 19,000 mg/l. The safe drinking water standard for chloride is 250 mg/l.

Total dissolved solids (TDS) concentration showed a similar trend. At 340 ft, bls, TDS concentration was approximately 360 mg/l. At depths of 440 and 540 ft, bls, it was 396 and 494 mg/l, respectively. At 615 ft, bls, it was 4,960 mg/l. The TDS concentration of sea water is normally about 35,000 mg/l. The safe drinking water standard for TDS is 500 mg/l.

The water-quality observations performed using well APAL-1 show that the onset of highly mineralized water in the Floridan aquifer beneath the proposed well field occurs between about 584 and 615 ft, bls. The onset of the highly mineralized water coincides approximately with the top of the lower permeable zone.

Observed Aquifer Hydraulic Parameters

The permeability of the upper zone of the Floridan aquifer was determined based on the results of an aquifer performance test. During the test, the pumping well, APAL-1, and observation wells, OBS-1 and OBS-2, were open to the upper permeable zone of the Floridan aquifer. A third observation well, S-1, was used to monitor Surficial aquifer drawdowns. OBS-1 and OBS-2 are located approximately 112 and 900 ft, respectively, from APAL-1. Surficial aquifer well S-1 is located approximately 20 ft from APAL-1. During the aquifer test, well APAL-1 was pumped at a constant rate of 519 gallons per minute (gpm) for 72 hours and drawdown and recovery data recorded. Based on the resulting data, the transmissivity of the upper permeable zone of the Floridan aquifer was estimated to be about 5,949 ft^2/day. Surficial-aquifer water levels were not influenced by the Floridan aquifer withdrawals.

Ground Water Flow Model

The ground-water flow model used by the City is an application of the United States Geological Survey (USGS) modeling code MODFLOW (McDonald and Harbaugh 1988). It consists of four model layers, each of which represents a different aquifer or permeable zone. In descending order, the four layers represent the Surficial aquifer, the Intermediate aquifer, the upper permeable zone of the Floridan aquifer, and the lower permeable zone of the Floridan aquifer. The area to which the model domain corresponds is approximately 28 miles wide by 48 miles long and is centered on the City of Apalachicola. A qualitative calibration of the model was performed by comparing simulated water levels of the upper permeable zone of the Floridan aquifer to those of a potentiometric-surface map based on data from several published and unpublished sources.

The ground-water flow model was used to perform three different sets of predictive simulations. One of the simulations involved the calculation of drawdowns in response to projected average-day rates (ADR) of withdrawals for the years 2010 and 2020. The projected 2010 ADR is 0.78 million gallons per day (mgd), and the projected 2020 ADR is 0.93 mgd. Another set of predictive simulations involved the calculation of drawdowns in response to projected maximum-day rates (MDR) of well withdrawals for 2010 and 2020. The projected 2010 MDR is 1.56 mgd, and the projected 2020 MDR is 1.85 mgd. The third set of simulations involved the calculation of drawdowns in response to projected maximum-month rates (MMR) of well withdrawals for 2010 and 2020. The projected 2010 MMR averaged over 30 days is 1.033 mgd, and the projected 2020 MMR averaged over 30 days is 1.133 mgd. The MMR in each case was applied over a 90-day simulation time.

The maximum predicted drawdown in the Surficial aquifer (represented by model layer 1) in response to the ADR withdrawal is 0.10 ft in the 2010 simulation results and 0.12 ft in the 2020 simulation results. No drawdown is predicted in the Surficial aquifer in response to the 2010 or 2020 seven-day MDR or 90-day MMR withdrawals.

The maximum predicted drawdown in the upper zone of the Floridan aquifer (represented by model layer 3) in response to the ADR withdrawal is 8.5 ft in the 2010 simulation results and 10.1 ft in the 2020 simulation results. The maximum predicted drawdown in the upper zone of the Floridan aquifer in response to the MDR withdrawal is 15.5 ft in the 2010 simulation results and 18.3 ft in the 2020 simulation results. The maximum predicted drawdown in the upper zone of the Floridan aquifer in response to the MMR withdrawal is 10.7. ft in the 2010 simulation results and 12.8 ft in the 2020 simulation results. Hydraulic head of the upper zone of the Floridan aquifer in the vicinity of the proposed well field is predicted to be drawn down to at or below mean sea level in all three sets of simulations.

Solute-Transport Model

A solute-transport model was used to simulate the movement of the highly mineralized water beneath the well field in response to the projected withdrawals. The model code used was SWIFT (Reaves et al. 1986). The withdrawals of all three proposed wells are specified in the SWIFT model at a single point. This is a conservative representation of the well-withdrawal distribution.

Highly mineralized water resides in the lower permeable zone of the Floridan aquifer beneath the proposed well field. The intervening semiconfining unit is the primary barrier to upward movement of the mineralized water into the upper permeable zone proposed for use by the City. The vertical permeability of this semiconfining unit was of primary consideration in attempting to determine the potential for salt-water upconing beneath the well field. Three model simulations were run, each with a successively higher value of vertical permeability assigned to the intervening semiconfining unit. The time in the three simulations was 50 years. The withdrawal rate in all three simulations was the 2020 ADR (i.e., 0.93 mgd).

The safe drinking water standard for total dissolved solid (TDS) concentration is 500 mg/l. The 500 mg/l contour was positioned initially at about 550 ft, bls, in all three simulations. The bottom of the production zone is at about 400 ft, bls. In simulation 1, the 500 mg/l contour ascends to 500 ft, bls. In simulation 2, it ascends to about 475 ft, bls. In simulation 3, the 500 mg/l ascends to 415 ft, bls. Case 3 is the most conservative of the three cases in that the vertical permeability assigned to represent the semiconfining unit separating the upper and lower permeable zones of the Floridan aquifer is highest in this simulation. The results of the solute-transport modeling indicate that, at the end of 50 years, upconing beneath the well field will result in movement of the 500 mg/l TDS contour to a point that is just below the bottom of the production zone.

The District has concern for the long-term viability of the wellfield. Upconing of mineralized water is a threat to the sustainability of the water supply source. One concern with relying, long-term, on the results

of the solute-transport model is that it represents the semiconfining unit separating the upper and lower permeable zones of the Floridan aquifer as a uniform, continuous barrier. In reality, discreet features such as faults, fractures, or paleosinks can be present throughout a carbonate aquifer system, including internal semiconfining units. Such features, sometimes called preferential paths, can provide connections between the upper and lower permeable zones of an aquifer and hence facilitate a higher rate of vertical movement of mineralized water than is predicted using the homogeneous, unbroken barrier concept. In many cases, wells that happen to be near a preferential path have suffered elevated TDS concentrations much sooner than predicted based on the continuum concept.

The presence or absence of preferential paths capable of accelerating the vertical movement of lesser quality water from the lower to the upper permeable zone of the Floridan aquifer in the vicinities of the proposed well sites is unknown. However, given that (1) the existing well field has suffered water-quality problems for many years, possibly since pumping began, (2) that the proposed wells will use the same production zone as the existing well field, and (3) that the existing well field is only two miles from the location of the proposed well field, it can be inferred that salt water intrusion may again be a problem. If indeed a preferential path or paths exist, then even the third solute-transport model simulation may have significantly overestimated the time required before the water quality of the proposed well field degrades. Therefore, while District staff considers the water use request reasonable and necessary, particularly in light of the fact that no other source of potable water is presently available to the City, it is imperative that the City closely monitor the water quality from the wells and initiate an effort to identify an alternative source of potable water for its long term use.

Conclusions

The results of the hydrogeologic investigation and aquifer modeling indicate that drawdowns from the operation of the well field should not harm the Surficial aquifer resources or interfere with existing legal users of the Surficial aquifer. Likewise, interference with existing legal users of the Floridan aquifer is not anticipated. Should it occur, the permit will be conditioned to require the City to mitigate the impacts. Also, the results of the hydrogeologic investigation and aquifer modeling indicate that upconing of mineralized water is not likely to affect the City's well field in the near term. Staff conclude that the use of the proposed wellfield will not harm the resource of the Floridan aquifer during the seven-year duration of the anticipated permit.

Water Conservation:

The City's plan to develop a new wellfield and improve the existing infrastructure should enhance water use efficiency and water quality. The applicant must take this opportunity to also develop a comprehensive water conservation and efficiency program. Such a program is considered an integral part of any resource protection plan.

An effective means to encourage the efficient use of water is through the use of a water conservation oriented rate structure. The City's present rate structure does not discourage wasteful water use practices. The rate structure is composed of "lifeline" rates for non-senior or disabled citizens, but for all others is essentially a "flat" rate structure. The customer is charged the same amount per gallon regardless of how much water is used. Several area utilities have adopted "increasing-block" rate structures, which provide for increasing cost per unit as more water is used. This type of rate structure should be considered an important component of a utility's comprehensive water management strategy. The applicant will be required to evaluate the feasibility of adopting an increasing-block rate structure.

The City also provides customers with the option of installing yard meters to provide for landscape irrigation. These meters encourage the use of the Floridan aquifer for irrigation and other nonpotable purposes. The District does not consider the use of yard meters that encourage or promote the use of the Floridan aquifer for irrigation, or other nonpotable uses, to be reasonable-beneficial or in the public interest. The District encourages the City to discontinue the practice of selling water for the purpose of irrigation and instead promote the use of shallow, Surficial aquifer wells or other alternative sources for these purposes.

One water conservation/efficiency measure that could generate additional water supplies to meet expanding demands is the reduction of system water losses. The applicant failed to identify its present unaccounted for losses. During the most recent permit renewal, the City's unaccounted for water losses were estimated at approximately 24% of the system's monthly water production. Based on the City's present use, this could equate to approximately 162,000 gallons per day. A reduction in unaccounted for water use to less than 10% could result in considerable water savings. The American Water Works Association recommends that utilities establish a goal of "unaccounted for water of less than 10 percent".

The reduction of the system's accounting and transmission inefficiencies could have noteworthy implications in the management of the area's limited freshwater supplies.

The City has taken preliminary steps to encourage its customers in water saving techniques. A comprehensive, scheduled program to specifically educate users in a wide variety of water conservation measures would assist in reducing demands placed on the area's water resources. For example, irrigation demand can be reduced by limiting the frequency of the irrigation events, irrigating only during low evaporation periods, such as between the hours of 4:00 p.m. and 10:00 a.m., and installing rain-sensing devices on automatic irrigation systems. The adjustment of sprinkler heads to maximize irrigation efficiency and reduce waste should also be encouraged. The District encourages the City to consider the adoption of an ordinance that requires such measures to be implemented.

Awareness by the public of the area's limited freshwater supplies, and of the need to provide for the long-term sustainability of available supplies, is critical for the successful implementation of a comprehensive water conservation/efficiency program. Public leadership, through a public awareness campaign designed to promote participation and cooperation in the implementation of new water management initiatives, is essential. The District encourages the applicant to pursue ways to enhance its water use efficiencies and minimize impacts to the resource.

Presently, reclaimed irrigation water is not available from the City's wastewater treatment plant. Before reclaimed water can be made available to the public, the applicant's treatment facility would have to be upgraded to provide for advanced waste treatment. A reuse transmission system would also need to be installed.

Conclusions and Recommendations:

It is the determination of the staff that the interim water use amounts recommended, as conditioned, are reasonable-beneficial, consistent with the public's interest, will not interfere with existing legal uses and will not cause harm to the water resources of the area. This determination has been made according to provisions of Chapter 373, Florida Statutes, and Chapter 40A-2, Florida Administrative Code.

The staff recommends that the applicant be granted an Individual Water Use Permit for an annual average daily withdrawal of 730,000 gallons, a maximum daily withdrawal of 1,314,000 gallons, and a maximum monthly withdrawal of 28,500,000 gallons. The staff also recommends that the permit's expiration be December 1, 2008, and that the permit be conditioned as per the terms and Standard Conditions of the permit document (NWFWMD Form No. A2-E), and the following Specific Conditions:

1. The Permittee, at the time of construction, shall conduct a specific capacity pump test on each of the proposed production wells. The test shall be performed for a minimum of 24 continuous hours. The results of the test shall be forwarded to the District within 30 days of completion of the well. The Permittee along with test results shall also submit driller's logs, and any geophysical logs and water quality analysis conducted as part of the well construction process. The Permittee, no less than seven days prior to executing the specific capacity test, shall provide the District with the specifics of the proposed test for review.

2. The Permittee shall implement the wellfield operation schedule identified in the City of Apalachicola Consumptive Use Permit modification request I06045 filed with the District on October 19, 2001.

3. The Permittee, by July 31, 2002, shall contact and meet with the Florida Rural Water Association (FRWA), or a consultant, to evaluate the water supply system and identify measures to improve system efficiency. At a minimum, the required evaluation shall include an assessment and identification of possible water losses and meter inaccuracies. A copy of the study's findings and recommendations, and a statement identifying the actions the City intends to undertake to address the study's recommendations, shall be submitted to the District by December 31, 2002.

4. The Permittee, by December 31, 2002, shall develop and implement a water use accounting system for its service area. The system shall provide for an accurate determination of the amounts of water withdrawn, the amounts of water billed to customers, and an estimate of the amounts unaccounted for due to leaks, line breaks, inaccurate meters, unmetered users, line flushing, etc. The Permittee, by July 31, 2002, shall notify the District that the water loss accounting system has been implemented. The Permittee shall report the annual unaccounted for water losses along with the Water Use Summary Report required in Specific Condition #9.

5. The Permittee, by December 31, 2003, shall develop a comprehensive water conservation/efficiency plan to encourage and promote water conservation within its service area. The water conservation plan and measures shall also be updated prior to any request for permit modification. As part of this conservation strategy, the Permittee shall specifically address the following actions:

   a. Develop a proactive customer water conservation/efficiency education program. The program shall include periodic news articles and direct mail literature (e.g., bill inserts); outreach programs (e.g., schools, colleges, public meetings); inform customers of the provisions of Chapter 373.62, Florida Statutes (automatic irrigation system shutoff requirement); and, promote irrigation during low evapotranspiration times, etc. The program shall be implemented by December 31, 2003.

   b. Achieving/maintaining water losses and unaccounted for supplies to less than ten percent of the water withdrawn. The plan shall provide for full implementation of this requirement by December 31, 2004.

   c. Consider refining its present water use rate structure to promote water use efficiency and discourage waste. The Permittee, by December 31, 2004, shall provide the District with a schedule by which the City Council will consider the adoption of an "increasing-block" rate structure. The Permittee, upon completion, shall identify for the District the action taken by the City Council.

   d. Consider discontinuing the practice of issuing yard meters and develop a plan for the removal of those presently installed. In lieu of this, the City could establish a rate structure and tap fees for yard meters that discourage their use and promote conservation. The Permittee, by December 31, 2004, shall provide the District with a schedule by which the City Council will consider the identified action. The Permittee, upon completion, shall identify for the District the action taken by the City Council.

   e. Consider the adoption of a Xeriscape and Irrigation Efficiency Ordinance for use within its service area. The Permittee shall also actively promote the adoption of said Ordinance by Franklin County for that area served by the City, but outside the city limits. The Ordinance, should shall meet the provision of Chapter 373.185, Florida Statutes, substantially incorporate the guidelines provided in *A Water-Efficient Landscaping Guide for Local Governments, 2nd Edition* and include limiting irrigation to specific times (e.g., 4 p.m. to 10 a.m., specific days, etc.). The required action shall be initiated by December 31, 2005.

   The Permittee, by January 31 of each year, shall provide a status report on the program's water conservation and efficiency measures, along with implementation goals and dates, achievement highlights, and other information that describes the success and future goals of the program.

6. The Permittee shall collect monthly static water data from each of the production wells and the Surficial aquifer monitoring well in accordance with the protocols defined below:

   a. For production wells only, survey the measuring point and well house floor elevation of each well relative to the National Geodetic Vertical Datum (NGVD). These data shall be provided within 60 days of permit issuance or well construction, as appropriate.

   b. Using a District-approved device, measure static water levels during the first two weeks of each month. The Permittee shall contact the District for assistance in designing the method and specifics of data collection. The data shall be recorded on forms provided by the District and shall be submitted quarterly with the water system's pumping reports as specified herein. Water level data collection shall commence upon the construction of each proposed well. Water level data collection from the Surficial aquifer well shall be initiated within 30 days of permit issuance.

   Water Level Monitoring Protocols

   <u>Surficial Aquifer Monitor well (CA Surficial MO #1)</u>—Water level monitoring shall be performed with an electric water level measurement tape, graduated in 0.01-ft increments. The Permittee shall report depth-to-water relative to a pre-defined measure point. Water level data shall be collected during the first two weeks of each month and shall be reported to the District on District-supplied forms. The Permittee shall report date of measurement as well as depth-to-water below measure point to 0.01-ft precision. Prior to initiating water level measurements, the Permittee and District staff shall meet in the field to mutually define a measure point from which water levels shall be referenced. The Permittee shall maintain the monitor wellhead in a good state of repair. The

wellhead shall be equipped with either a locking steel protective casing (above grade finish) or a locking well plug (flush mount). Well protective casing shall be fire resistant.

Production wells—Water level measurements shall be taken as specified above for the Surficial aquifer monitor well. In addition, the following requirements shall apply. Production wellheads shall be configured so as to allow the introduction of a water level measurement tape into the space between the casing and the pump column. The casing access point shall be configured to provide for water level measurement with as little deflection of the tape away from vertical as is practicable. The casing access point shall also be configured to allow the opening to be securely sealed, when not in use. The Permittee shall survey the elevation (relative to NGVD) of both the top of the casing access point and the floor elevation of the well house. The Permittee shall also specify whether elevations are relative to NGVD 29 or NGVD 88. Prior to making a measurement, the Permittee shall insure that the well has recovered sufficiently for water level measurements to represent static conditions.

7. The Permittee, biannually, during the first two weeks of the months of December, March, June, and August, shall conduct a water quality analysis on water from each of the production wells. The water quality analysis shall test for chloride, sodium and total dissolved solids concentrations. Prior to sampling, the Permittee shall purge a minimum of three to five well volumes from the wells, and shall report with each set of test results, the duration of purging, purge volume, and purge rates used. The data shall be submitted with the water system's pumping reports as specified herein.

8. The Permittee, by January 31, April 30, July 31, and October 31 of each year, shall report the following:

   a) The data required on Water Use Summary Reporting Form NWFWMD A2-I for the preceding three months for all withdrawals. Flow meters shall be installed on the production wells at the time of construction and per the manufacturer's recommendation. The flow meters shall be maintained in good working order at all times and be recalibrated at the frequency recommend by the manufacturer.

   b) The amount of unaccounted for water during each month (e.g., the difference between the amounts of water billed to customers and the amount of water withdrawn from the wells).

   c) The static water level and water quality data collected required herein.

   d) Certification that the wellfield operation schedule as identified in the City of Apalachicola's consumptive use permit modification request I06045 is being implemented.

   The Permittee shall reference all wells by their Florida Unique Identification Number when corresponding with the District (e.g., reporting withdrawals, water levels, water quality data).

9. The Permittee, by permit renewal, shall investigate alternate water source(s) for its needs beyond 2010. The Permittee shall develop a plan that provides for the use of one or more alternative water sources in the event a trend of degrading water quality in the proposed wells is detected. The Plan shall provide for the implementation of the alternative source of supply in sufficient time to prevent harm from occurring to the resources. The Permittee, as part of the Plan, shall specifically evaluate obtaining surface water from the City of Port St. Joe and conclusively demonstrate that the water conservation provisions required herein have been fully implemented.

10. The Permittee shall provide for the proper abandonment of the existing production wells and Observation Wells OB #1 and #2 within 180 days of placing the new wellfield into operation. The wells shall be plugged from the bottom of the open hole to land surface with neat cement grout. The wells shall be abandoned in accordance with Section 40A-3.531, Florida Administrative Code.

11. The Permittee, should it occur, shall mitigate interference to existing users that is attributable to the withdrawal amounts authorized herein. The Permittee shall report the occurrence of any such interference to the District and shall identify the mitigation action undertaken to address the interference.

PERMIT MAILOUT ENCLOSURES: WATER USE SUMMARY REPORTING FORM
WATER CONSERVATION PAMPHLET
CHAPTERS 373.185 AND 373.62, FLORIDA STATUTES

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STAFF REPORT

TO: Governing Board

FROM: Regulatory Division

DATE: March 31, 2005

SUBJECT: Request for Modification of Individual Water Use Permit No. 19840039
Individual Water Use Permit Application No. I06520

Applicant: City of Carrabelle

Location: City of Carrabelle, Franklin County, Permit Area B
Section 29, Township 7 South, Range 4 West

Use: Public Supply

Water Source: Floridan Aquifer

Facility:

Well Number	Florida Unique ID Number	Diameter (in.)	Pump Capacity (gpm)	Total Depth (ft.)	Cased Depth (ft.)	Status
CC #1	AAA5317	10	350	88	71	Abandoned
CC #2	AAA5320	12	350	150	100	Back Up
CC #3	AAB1424	12	700	150	80	Active
FCI #1	AAF8224	12	500	150	82	Existing*

*To be acquired from the Florida Department of Corrections – Franklin County Corrections Institution. Originally authorized by Permit 20010038

Capacity: Existing: 1,050 Gallons per Minute; 1,512,000 Gallons per Day
Proposed: 1,650 Gallons per Minute; 2,304,000 Gallons per Day

Withdrawal Information:

Water Use Totals	Authorized	Use	Requested	Recommended
Average Day (GPD)	211,000	232,279	377,000	377,000
Maximum Day (GPD)	401,000	470,000	732,000	732,000
Maximum Month (Gal)	8,200,000	9,969,000	15,700,000	15,700,000

Staff Evaluation:

The City of Carrabelle, a coastal community in Franklin County, has applied for modification of Individual Water Use Permit No. 19840039 to add one existing Floridan aquifer public supply well (FCI #1). The well was originally constructed and authorized for use to the Franklin County Correctional Institution (FCI). The City is requesting, with FCI's concurrence, that this well and its associated water use allocation be assigned to the City. No net increase in authorized ground water withdrawals in the area will occur.

The City of Carrabelle, with several exceptions, has complied with the conditions of the existing permit. The applicant, over the past five years, has occasionally exceeded the authorized amounts. During this period the applicant experienced severe water losses. The City attributes its 2004 total water losses of 21% (18.3 million gallons) to line flushing, fire fighting, unmetered connections and mains broken during construction. In an effort to curtail losses, the City has completed the replacement of most of the distribution system and has begun to implement water conservation measures. Staff commends the City of Carrabelle for its compliance efforts. However, it is imperative that the applicant address the on-going water losses by strictly adhering to the City's Water Resource Master Plan (Baskerville-Donovan, Inc., 2001).

The City of Carrabelle utilizes one Floridan aquifer well (CC #3) to serve a customer base of approximately 2,240 individuals and 83 commercial businesses. A second Floridan aquifer well (CC #2) serves as a reserve well. The City, combining the presently permitted amounts with those associated with FCI's Well #1, is requesting average daily, maximum daily and monthly amounts of 377,000 gallons,

732,000 gallons and 15,700,00 gallons, respectively. These amounts represent no increase from amounts previously permitted to both the City and FCI for public supply.

Staff Conclusions and Recommendations:

It is the determination of the staff that the water use amounts recommended, as conditioned, are reasonable-beneficial, consistent with the public's interest, will not interfere with existing legal uses and will not cause harm to the water resources of the area. This determination has been made according to provisions of Chapter 373, Florida Statutes, and Chapter 40A-2, Florida Administrative Code.

The staff recommends that the applicant be granted an Individual Water Use Permit for an annual average daily withdrawal of 377,000 gallons, a maximum daily withdrawal of 732,000 gallons, and a maximum monthly withdrawal of 15,700,000 gallons. The staff also recommends that the permit's expiration date remain June 23, 2007 and that the permit be conditioned as per the terms and Standard Conditions of the permit document (NWFWMD Form No. A2-E), and the following Specific Conditions:

1. The Permittee shall include the Individual Water Use Permit number and shall reference each well by its Florida Unique Identification Number (e.g., AAA###) on all submittals when corresponding with the District.

2. The Permittee shall install an in-line totaling flow meter on newly acquired well FCI #1 (AAF8224) and maintain, in working order, the meters on Floridan aquifer wells CC #2 and CC #3.

3. The Permittee, from FCI #1 (AAF8224), shall not exceed an annual average daily withdrawal of 166,000 gallons, a maximum daily withdrawal of 331,000 gallons and a maximum monthly withdrawal of 7,500,000 gallons.

4. The Permittee shall continue to limit Well CC #2 to reserve use and withdraw no more than an annual average daily amount of 71,000 gallons from this well.

5. The Permittee shall record the data required on the Water Use Summary Reporting Form NWFWMD A2-I for each production well and shall submit copies by January 31 of each year, even if no water is used. The Permittee, if preferred, may submit the report electronically by downloading the correct form from the District website, filling it out properly, and e-mailing it to compliance@nwfwmd.state.fl.us. The report for the year 2005 is due by January 31, 2006.

6. The Permittee shall continue to implement its water use accounting system for its service area to provide an accurate determination of the amounts of water withdrawn from the Floridan aquifer, the amounts of water billed to customers, and the amounts unaccounted for due to leaks, line breaks, inaccurate meters, unmetered users, line flushing, etc. The Permittee, by January 31 of each year, shall submit the required information with the pumping reports required in Specific Condition #5.

7. The Permittee, shall submit water quality results from tests conducted on well CC #2 during the month of August. The water quality analyses shall test for the following parameters: chloride concentration, sodium concentration, total dissolved solids concentration and conductivity. Prior to sampling, the permittee shall purge at least three well volumes from the well. The next report is due by October 31, 2005.

8. The Permittee shall comply with all provisions of its Water Resource Master Plan to promote water use efficiency and conservation, to address the water resource availability in the utility's service area through the year 2020 and to continue to identify the potential for the utilization of reclaimed water. Specifically, the Permittee shall take measures to reduce and maintain water losses and unaccounted for uses to less than ten percent. An update of the Water Resource Master Plan shall be submitted at the time of permit renewal or modification.

9. The Permittee shall consider refining its present rate structure to promote water use efficiency and discourage waste. Any refinements shall take into consideration the water use characteristics of its service area and provide financial incentives to customers to conserve and use water efficiently. The Permittee, by June 30, 2005, shall submit to the District the most recently adopted rate structure and shall initiate the evaluation of the rate structures. The Permittee, by January 31 of each year, shall submit a copy of the present rate structures to the District and report to the District its findings and any action taken by the City Council on this issue to promote water use efficiency.

10. The Permittee shall adopt a Xeriscape Ordinance within its city limits. The Permittee shall recommend and formally request Franklin County to adopt a Xeriscape Ordinance as well. Any such ordinances, at a minimum, shall meet the provisions of Chapter 373.185, Florida Statutes. The Permittee shall initiate the required actions by June 30, 2005 and, by January 31 of each year, shall report to the District its actions and any action taken by Franklin County on this issue to promote water use efficiency.

11. The Permittee, prior to permit renewal, shall investigate the feasibility of interconnecting its water supply with other water supply systems in the area. If feasible, the Permittee shall undertake the necessary interconnections in order to optimize the area's water production and distribution systems.

12. The Permittee, by December 31, 2005, shall contact and meet with the Florida Rural Water Association (FRWA), or a consultant, to evaluate the upgrades made to the water system. At a minimum, the required evaluation shall include an assessment and identification of possible water losses and meter inaccuracies. A copy of the study's findings and recommendations, and a statement identifying the actions the City intends to undertake to address the study's recommendations, shall be submitted to the District by July 1, 2006.

13. The Permittee shall mitigate any unexpected impacts attributable to the City's withdrawals which interfere with any existing legal users of water or harm the resource. In the event of such an occurrence, the City shall provide a service connection to the impacted user or otherwise mitigate the impact. The Permittee shall report to the District the occurrence of any such impacts and shall identify the action undertaken to address the impacts.

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STAFF REPORT

TO: Governing Board

FROM: Regulatory Division

DATE: September 6, 2005

SUBJECT: Renewal of Individual Water Use Permit No. 19980008
Individual Water Use Permit Application No. I06574

Applicant: Eastpoint Water and Sewer District

Location: Eastpoint, Franklin County, Permit Area B
Section 36, Township 8 South, Range 7 West
Section 31, Township 8 South, Range 6 West

Use: Public Supply

Water Sources: Floridan Aquifer

Facilities:

Well ID Number	Florida Unique ID Number	Diameter (Inches)	Total Depth (Feet)	Cased Depth (Feet)	Pump Capacity (GPM)	Status
EWSD #1	AAA5312	6	200	170	236	Existing
EWSD #2	AAA5311	12	263	192	597	Existing

Capacity: 833 Gallons per Minute; 1,199,520 Gallons per Day

Withdrawal Information:

Water Use Totals	Permitted	Use	Requested	Recommended
Average Day (GPD)	342,000	282,454	342,000	342,000
Maximum Day (GPD)	770,000	481,000	770,000	770,000
Maximum Month (Gal)	13,000,000	10,034,000	13,000,000	13,000,000

Staff Comments:

The Eastpoint Water and Sewer District (EWSD) is requesting renewal of Individual Water Use Permit 19980008. The applicant requests no increases in the authorized withdrawal amounts. EWSD has complied, although occasionally untimely, with the provisions of the Permit. EWSD will need to closely adhere to the stipulations of the permit in the future to avoid the initiation of enforcement action.

EWSD provides potable water to a service area population of approximately 2,800 individuals. Based on pumping reports for the past four years water use has increased at an annual rate of three percent. However, EWSD anticipates a 23 percent annual increase in service connections over the next five years as the local economy shifts from one of predominantly small commercial fishing to resort-based. EWSD, at this time, is not requesting an increase in the permitted amounts. EWSD intends to request a modification of the amounts to address the anticipated growth once it completes its plans to upgrade the utility's infrastructure and develop a conservation oriented rate structure.

Water conservation in EWSD's service area is of paramount importance. The rapid growth projected by the applicant, compounded by limited and vulnerable ground water resources, necessitates EWSD implement a proactive water conservation program. Such a program must include a reclaimed water component. The opportunity for reuse programs to achieve the greatest success is prior to or concurrent with significant development. To these ends, the permit will require EWSD to develop a "Reuse Master Plan" having as its primary goal the direct reduction/prevention of non-potable demands on the ground water resources in the area.

Conclusions and Staff Recommendations:

It is the determination of the staff that the water use amounts recommended, as conditioned, are reasonable-beneficial, consistent with the public's interest, and will not harm the water resources of the area or interfere with existing legal users. This determination has been made according to provisions of Chapter 373, Florida Statutes, and Chapter 40A-2, Florida Administrative Code.

The staff recommends that the applicant be granted an Individual Water Use Permit for an annual average daily withdrawal of 342,000 gallons per day, a maximum daily withdrawal of 770,000 gallons, and a maximum monthly withdrawal of 13,000,000 gallons. Staff also recommends that the permit's expiration date be November 1, 2008, and that the permit be conditioned as per the terms and Standard Conditions of the permit document (NWFWMD Form No. A2-E) and the following Specific Conditions:

1. The Permittee shall include the IWUP number and shall reference each well by its Florida Unique Identification Number (e.g., AAA###) on all submittals when corresponding with the District.

2. The Permittee shall maintain water losses and unaccounted for supplies to less than ten percent of the water withdrawn (amount withdrawn verses amount delivered). The Permittee, by January 31 of each year, shall provide a progress report, including documentation, to the District of the unaccounted for totals and the actions taken to account for and reduce system water losses.

3. The Permittee shall record the data required on the Water Use Summary Reporting Form NWFWMD A2-I for each production well and shall submit copies by January 31 of each year, even if no water is used. The Permittee, if preferred, may submit the report electronically by downloading the correct form from the District website, filling it out properly, and e-mailing it to compliance@nwfwmd.state.fl.us. The water use and water loss information for the year 2005 is due by January 31, 2006.

4. The Permittee, by January 31 of each year, shall submit annual water-quality results from tests conducted on wells EWSD #1 and EWSD #2 during the month of August. The water-quality analysis shall test for conductivity, chloride, sodium and total dissolved solids concentrations. Prior to sampling, the Permittee shall purge at least three well volumes from the wells. The next report is due by January 31, 2006.

5. The Permittee shall develop a plan to adopt a conservation rate that promotes water-use efficiency and conservation, while providing for a “life-line” initial rate and a maximum rate that discourages water waste and inefficiencies. The plan, including a schedule for implementation, shall be submitted to the District by July 31, 2007. The Permittee, by January 31 of each year, shall submit to the District a copy of its present rate structure.

6. The Permittee, in conjunction with Special Condition #5, shall consider revising existing membership and/or tap fees (non-rate fees) to promote the installation of minimally sized connections/meters to meet non-discretionary water demand and discourage wasteful, discretionary use (e.g., irrigation, aesthetic use). A copy of the evaluation of the recommended revisions shall be submitted to the District by July 31, 2007. The Permittee, by January 31 of each year, shall submit to the District a copy of its present rate structure.

7. The Permittee shall not provide water to customers to fill or augment the level of water bodies used for aesthetic, irrigation, or other similar non-potable purposes (excluding swimming pools). Any existing uses shall be terminated by December 31, 2007.

8. The Permittee, by July 31, 2007, shall implement a plumbing fixtures retrofit program designed to enhance water use efficiency. The Permittee, at a minimum, shall promote and make available to its customer’s toilet tank displacement and faucet and showerhead aerators/flow-restrictors. The customers’ kits shall provide sufficient units to retrofit all faucets and showerheads within a household or business establishment. The Permittee shall provide special assistance to hotels, motels and condominiums. The Permittee, by January 31 of each year, shall submit to the District a copy of its present rate structure.

9. The Permittee, by July 31, 2007, shall formally request Franklin County to adopt a Xeriscape Ordinance within its service area that, at a minimum, meets the provisions of Chapter 373.185, Florida Statutes, and an Irrigation Efficiency Ordinance that provides for year-round enhanced irrigation efficiency hours (e.g., before 10 a.m. and after 4 p.m.) and irrigation for a maximum number of days each week (e.g. two days per week). The Permittee, by January 31 of each year, shall submit to the District a copy of its present rate structure.

10. The Permittee shall undertake a comprehensive public education and information campaign to promote water conservation and efficiency. The campaign shall consist of newspaper notices and articles, periodic radio and television announcements, periodic mail-outs to customers and the posting of signs in the rooms of hotels, motels and rental property. The campaign shall be oriented to emphasize the program being implemented and water conservation in general. The campaign shall be designed to regularly reach permanent and part-time residents and tourists. The program implementation shall be achieved by December 31, 2006. The Permittee, by December 31 of each year, shall provide a status report on the implementation of the required actions within the service area. The Permittee, by January 31 of each year, shall submit to the District a copy of its present rate structure.

11. The Permittee, by December 31, 2007, shall submit to the District a detailed "Reuse Master Plan". The Plan shall have, as its principle goal, the 100 percent utilization of reclaimed water in such a manner as to directly reduce or prevent demand placed on the ground water resources in the area. The plan shall include a priority list of the potential reclaimed water end-users, the volume to be supplied to each and an estimation of site-specific implementation dates. The plan shall specifically include provisions to provide reclaimed water to new developments having non-potable uses (e.g., landscape irrigation). The Permittee, by December 31, 2006, shall provide to the District a scope of work for development of the plan.

12. The Permittee shall mitigate, to the satisfaction of the District, any adverse impact caused by the withdrawals permitted herein on the water resources of the area or on domestic or other legal water withdrawals and uses. Further, the Permittee shall take any action required with regard to its water use to comply with any future minimum or management levels established by the District. If adverse impacts occur or are imminent, the District reserves the right to curtail withdrawal rates.

PERMIT MAILOUT ENCLOSURES: WATER USE REPORTING SUMMARY FORM
WATER RATES: CONSERVING WATER AND PROTECTING REVENUES
XERISCAPE PAMPHLET
RECLAIMED WATER PAMPHLET
CHAPTER 373.62, FLORIDA STATUTE

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STAFF REPORT

TO: Governing Board

FROM: Regulatory Division

DATE: May 17, 2006

SUBJECT: Request for Modification and Renewal of Individual Water Use Permit No. 20040013
Individual Water Use Permit Application No. I06687

Applicant: Water Management Services, Inc.

Location: Eastpoint, Franklin County, Permit Area B
Sections 30 and 31, Township 8 South, Range 6 West

Use: Public Supply

Water Source: Floridan Aquifer

Facility:

Well ID	FLUWID	Diameter (in)	Total Depth (ft)	Cased Depth (ft)	Status
WMS #1	AAA5300	8	263	170	Existing
WMS #2	AAA5299	8	300	190	Existing
WMS #3	AAA5297	12	311	185	Existing
WMS #4	AAD9754	12	329	190	Existing
WMS-MO#1	AAB0501	5	313	181	Existing
WMS-MO#2	To be assigned	4	329	190	Existing

Capacity: 1,750 Gallons per Minute; 2,520,000 Gallons per Day

Withdrawal Information:

Ground Water Use	Permitted	Use	Requested	Recommended
Average Day (GPD)	670,000	594,885	770,871	714,000
Maximum Day (GPD)	1,100,000	1,034,000	1,385,659	1,240,000
Maximum Month (GAL)	26,000,000	27,186,000	36,578,326	32,700,000

Staff Evaluation:

Water Management Services, Inc. (WMS) is requesting modification and renewal of Individual Water Use Permit No. 20040013. WMS has complied with the conditions of the permit.

WMS withdraws water from the Floridan aquifer in an area of coastal Franklin County known as Cat Point to provide for public supply on St. George Island. Geographically, the area is limited, concentrating the withdrawals of both WMS and Eastpoint Water and Sewer District in proximity to each other. Also, the water resources of the Floridan aquifer in this area are limited.

WMS, in its application, predicts its water use will increase at the rate of five percent per year. This rate of growth is higher than the Utility's three percent annual water use demand increase for the past five-years. Based on the more accurate growth rate, staff estimates the applicant's average daily, maximum daily, and maximum monthly demand will be 714,000 gallons, 1,240,000 gallons, and 32,700,000 gallons, respectively.

Staff utilized the Theis equation as implemented in the District's DRAWDOWN model to assess the potential for drawdown due to the withdrawal of the recommended amounts. The simulation predicted additional drawdown of 2.2-feet at ½-mile from the center of pumping and a drawdown of two-feet at one mile from the center of pumping.

The recommended increases are relatively small. Hence, the associated increase in drawdown is relatively small. However, the total drawdown due to the previously authorized amounts and these increases, are noteworthy. The total drawdown predicted from the pumping center is about 13-feet at ½-mile and 11.8-feet at one mile.

Historic water level data show less drawdown than predicted in the model, however, the water quality surrounding Cat Point and in the lower portions of the aquifer is not potable. Caution in the operation and monitoring of these wells must be adhered to. WMS will be required to continue monitoring water quality and water levels in all four production wells and both monitoring wells. Further, WMS should be prepared, prior to requesting any additional amounts or well, to conduct ground-water modeling for evaluation of impacts. Finally, WMS will be required to continue implementing conservation and efficiency measures designed to minimize the amount of water withdrawn and the potential for impacts. WMS, should these measures prove inadequate, will be required to mitigate any impacts attributed to its pumping activities.

Conclusions and Staff Recommendations:

It is the determination of the staff that the water use amounts recommended, as conditioned, are reasonable-beneficial, consistent with the public's interest, and will not harm the water resources of the area or interfere with existing legal users. This determination has been made according to provisions of Chapter 373, Florida Statutes, and Chapter 40A-2, Florida Administrative Code.

The staff recommends that the applicant be granted an Individual Water Use Permit for an annual average daily withdrawal of 714,000 gallons, a maximum daily withdrawal of 1,240,000 gallons, and a maximum monthly withdrawal of 32,700,000 gallons. Staff also recommends that the permit's expiration date be July 1, 2011, and that the permit be conditioned as per the terms and Standard Conditions of the permit document (NWFWMD Form No. A2-E) and the following Specific Conditions:

1. The Permittee shall reference the utility's production and monitoring wells by their Florida Unique Well Identification Number (FLUWID AAA####) when corresponding with the District. All water quality and water level data submitted shall clearly identify, by FLUWID #, the well associated with the data.

2. The Permittee shall maintain, in working order, in-line totaling flow meters on all production wells.

3. The Permittee shall limit the combined withdrawal amounts from wells WMS #1 (AAA5300), WMS #2 (AAA5299), and WMS #3 (AAA5297) to no more than 50 percent of its total annual withdrawal. The Permittee shall not withdraw at a rate of more than 250 gpm from either well WMS #1 (AAA5300) or WMS #2 (AAA5299), nor withdraw at a rate of more than 500 gpm from either well WMS #3 (AAA5297) or WMS #4 (AAD9754). The Permittee, by January 31 of each year, shall submit certification and documentation to the District that the utility has complied with this condition.

4. The Permittee, by January 31, April 30, July 31, and October 31 of each year, shall report the following information.

   a. The data required on Water Use Summary Reporting Form NWFWMD A2-I for each production well for the preceding three months even if no water is used.

   b. Static water level data for all all production and monitor wells during the first two weeks of each month. The Permittee shall use a District-approved method and shall not withdraw water from the wells for as long as possible (preferably 24 hours but at least four hours) prior to measuring the water level. All measurements shall be taken from the same measuring point. If the measuring point elevation is different from land surface, the Permittee shall provide the difference between these two elevations. All measurements shall reflect the depth to water from land surface elevation.

   The Permittee, if preferred, may submit the report electronically by e-mailing it to compliance@nwfwmd.state.fl.us.

5. The Permittee, during the first two weeks of January, April, July and October, shall conduct water quality sampling from all production and monitor wells. The water-quality analyses shall test for the following parameters: chloride, sodium and total-dissolved solids. Prior to sampling, the Permittee shall purge a minimum of three to five well volumes from the wells, and shall report with each set of test results, the duration of purging, purge volume, and purge rates used. The Permittee shall submit the results by the last day of the following month (e.g., data for samples collected in January are due by February 28). The Permittee, if preferred, may submit the report electronically by e-mailing it to compliance@nwfwmd.state.fl.us.

6. The Permittee, by July 31 of each year, shall report on the progress of implementation of the following water conservation/efficiency measures. The Permittee shall:

a. Provide an account of the amount of water withdrawn, the actual amount of water accounted for through the billing system, and an estimate of unaccounted for water by suspected cause (e.g., leaks, line breaks, inaccurate meters, unmetered users, line flushing, etc.). The Permittee shall also submit a progress report, including documentation, to the District of the unaccounted for totals and the actions taken to account for and reduce system water losses to less than ten percent of the water withdrawn during the previous year (amount withdrawn verses amount delivered).

b. Submit a copy of the present rate structure and tap fees.

c. Consider revising existing membership and/or tap fees (non-rate) fees to promote the installation of minimally sized connections/meters to meet non-discretionary water demand and discourage wasteful, discretionary use (e.g., irrigation, aesthetic use). The Permittee shall report to the District any recommended revisions and any actions undertaken as part of the required evaluation.

d. Provide documentation to the District that WMS have formally requested that Franklin County adopt a Florida Friendly Landscape Ordinance that, at a minimum, meets the provisions of Chapter 373.185, Florida Statutes, and an Irrigation Efficiency Ordinance that provides for year-round enhanced irrigation efficiency hours of before 10 a.m. and after 4 p.m. and irrigation for a maximum number of days each week (e.g. two days).

e. Provide updated status of its plumbing fixtures retrofit program designed to enhance water use efficiency. The Permittee, at a minimum, shall promote and make available to its customer's toilet tank displacement and faucet and showerhead aerators/flow-restrictors. The customers' kits shall provide sufficient units to retrofit all faucets and showerheads within a household or business establishment. The Permittee shall provide special assistance to hotels, motels and condominiums.

f. Provide updated status of a comprehensive public education and information campaign to promote water conservation and efficiency. The campaign shall consist of newspaper notices and articles, periodic radio and television announcements, periodic mail-outs to customers and the posting of signs and informational brochures in the rooms of hotels, motels and rental property. The campaign shall be oriented to emphasize the program being implemented and water conservation in general. The campaign shall be designed to regularly reach permanent and part-time residents and tourists.

7. The Permittee, by April 30 of each year, shall submit the following information for the previous year:

   a. The total amount of water being billed to each type of customer (e.g., residential, commercial) within its service area and each total divided by the number of meters of each customer type. This analysis will be used to identify trends in total water use and water conservation/efficiency within the service area. The Permittee may submit additional analytical information in support of its water conservation and efficiency initiatives.

   b. A summary of per-capita demands within its service area for each year and how the demands were calculated. The method utilized to estimate per capita demands shall be sufficiently documented that the calculated demands can be used to measure water efficiency/conservation progress within the WMS service area. The method of estimating the population served shall also be provided.

   c. The number of active service connections.

8. The Permittee shall mitigate any adverse impact caused by withdrawals permitted herein on the water resources of the area or on domestic or other legal water withdrawals and uses. The Permittee shall report the occurrence of any such impacts to the District and shall identify the mitigation action undertaken to address the impacts or provide for the user to be connected to a water-supply system.

PERMIT MAILOUT ENCLOSURES: WATER USE SUMMARY REPORTING FORM, NWFWMD Form A2-I
WATERATE PAMPHLET

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STAFF REPORT

TO: Governing Board

FROM: Regulatory Division

DATE: May 24, 2005

SUBJECT: Request for Modification and Renewal of Individual Water Use Permit No. 19840008
Individual Water Use Permit Application No. I06544

Applicant: Alligator Point Water Resources District

Location: Alligator Point
Franklin County, Permit Area B
Sections 25 & 30; Township 6 South; Range 1 West
Sections 23, 24 & 30; Township 6 South; Range 2 West

Use: Public Supply

Water Source: Floridan Aquifer

Facility:

Well Number	Florida Unique Well ID	Diameter (in.)	Total Depth (ft.)	Cased Depth (ft.)	Well Capacity (gpm.)	Status
AP #1	AAA0542	6	130	73	65	Existing
AP #2	AAA5373	6	134	72	0	Abandoned
AP #3	AAA5374	6	135	92	0	Abandoned
AP #4	AAA5375	6	130	96	65	Existing
AP #5	AAA5376	6	118	85	65	Existing
AP #6	AAD9156	6	130	97	65	Existing
AP #7	AAD9157	6	130	97	65	Existing
AP #8	--	6	249	97	0	Abandoned
AP #9	--	6	130	85	0	Existing
AP #2R	--	6	135	75	65	Proposed
AP #3R	--	6	155	95	65	Proposed

Withdrawal Information:

Water Use Totals	Authorized	Use*	Requested	Recommended
Average Day (GPD)	152,000	107,000	167,200	167,000
Maximum Day (GPD)	600,000	326,000	590,400	590,000
Maximum Month (Gal)	6,854,000	5,000,000	6,802,400	6,800,000

*During 2003

Staff Evaluation:

The Alligator Point Water Resources District (APWRD) is requesting modification and renewal of Individual Water Use Permit No. 19840008. The modification includes installation of two replacement supply wells, reauthorization to use well AP #4 and an increase in the average daily withdrawal. The staff has determined that the applicant is compliant with the conditions of the existing Permit.

The APWRD, established in the mid-1960's by the Florida Legislature, obtains water from a well field located on the Alligator Point peninsula. The peninsula is bound on three sides and from below by saline water and, as a result, the wells have experienced notable problems with water quality and yields. The present well field consists of six wells; two serve as production wells (AP #1 and AP #5), two serve as reserve wells (AP #6 and AP #7), one is out of service (AP #4) and another is being used as a monitoring well (AP#9). Well AP #4 was to be plugged due to poor water quality. However, the applicant, citing improved water quality at low pump rates, is requesting authorization to place well AP #4 back into service. Staff agrees with this assessment.

The applicant's service area is characterized by significant fluctuations in population and water use demands due to its location on the coast and its proximity to the Tallahassee area. The APWRD serves a base population of approximately 1,340 and a peak population of 3,350. APWRD projects a 6.1% annual

population increase over the next five years. To serve this increased population, the applicant requests an average daily, maximum daily and maximum monthly withdrawal of 167,200, 590,400 and 6,802,400 gallons, respectively. This is a slight increase in the average daily withdrawal. The requested maximum daily withdrawal is less than currently permitted and the maximum monthly withdrawal is unchanged. Staff considers these projections to be reasonable.

The applicant's current average peak day ratio of approximately 4:1 and peak month ratio of 1.6:1 were used to estimate the maximum daily and monthly demands. Although the peak day ratio is considered high, the applicant experiences unusually high peak season populations and, since 2002, has implemented measures to reduce the system's water use losses to below 10%.

Staff utilized the Theis equation as implemented in the District's DRAWDOWN model to estimate the total drawdown expected in the Floridan aquifer in response to the recommended withdrawals. One mile from the center of pumping, the total drawdown is estimated to be 2.1 feet and 2.4 feet at one half mile when the average daily rate is pumped for five years. This drawdown should not harm the resource or existing, legal users. However, due to the high potential for upconing, the applicant should manage its pumping activity to minimize potential impacts to ground water.

Due to the resource concerns and growing demand in this area, the conservation and efficient use of water is of paramount importance. APWRD must implement a proactive, comprehensive water conservation program, with special emphasis on public education, to be effective in reducing demand on the Floridan Aquifer. Water saved through conservation and efficiency improvements can be used to meet water needs that would otherwise require development of alternative sources of water.

Conclusions and Staff Recommendations:

It is the determination of the staff that the water use amounts recommended, as conditioned, are reasonable-beneficial, consistent with the public's interest, and will not harm the water resources of the area or interfere with existing legal users. This determination has been made according to provisions of Chapter 373, Florida Statutes, and Chapter 40A-2, Florida Administrative Code.

The staff recommends that the applicant be granted an Individual Water Use Permit for an annual average daily withdrawal of 167,000 gallons, a maximum daily withdrawal of 580,000 gallons, and a maximum monthly withdrawal of 6,800,000 gallons. The staff also recommends that the permit's expiration date be July 1, 2010 and that the permit be conditioned as per the terms and Standard Conditions of the permit document (NWFWMD Form No. A2-E), and the following Specific Conditions:

1. The Permittee shall include the Individual Water Use Permit number and shall reference each well by its Florida Unique Identification Number (e.g., AAA###) on all submittals when corresponding with the District.

2. The Permittee shall install an in-line totaling flow meter on each newly constructed well and maintain, in working order at all times, the totalizing flow meters of all Public Supply wells.

3. The Permittee shall conduct its withdrawals in accordance with the pumping schedule identified in the application.

4. The Permittee shall record daily the data required on the Water Use Summary Reporting Form NWFWMD A2-I for each Public Supply well and shall submit copies by January 31 of each year, even if no water is used. At the time of submittal, an estimate of the "unaccounted for water" during the preceding year shall be provided including the amounts of water withdrawn from the Floridan aquifer, the amounts of water billed to customers, and the amounts unaccounted for due to leaks, line breaks, inaccurate meters, unmetered users, line flushing, etc. The Permittee, if preferred, may submit the report electronically by downloading the correct form from the District website, filling it out properly, and e-mailing it to compliance@nwfwmd.state.fl.us. The report for the year 2005 is due by January 31, 2006.

5. The Permittee, by January 31, April 30, July 31, and October 31 of each year, shall report the following information:

    a. Water quality sample results from Public Supply wells AAA0542 (AP #1), AAA 5375 (AP #4) and AAA5376 (AP #5), Floridan aquifer monitoring well AP #9, and, following placement into service, the two replacement supply wells (AP #2R and AP #3R). The samples shall be collected during the first two weeks of each month and analyzed for sodium, chloride, specific conductance, and total dissolved solids. Prior to sampling, the Permittee shall purge at least three

well volumes from the well, and shall report with the test results, the purging duration, volume and rate used.

b. Static water level data for each production well during the first two weeks of January, April, July, and October. The water level data shall be referenced to mean sea level.

The Permittee, if preferred, may submit the reports electronically by e-mailing the data to compliance@nwfwmd.state.fl.us.

6. The Permittee shall consider refining its present rate structure to promote water use efficiency and discourage waste. Any refinements shall take into consideration the water use characteristics of its service area and provide financial incentives to customers to conserve and use water efficiently. The Permittee, by January 31 of each year, shall submit a copy of the present rate structure to the District and report to the District its findings and any action taken on this issue to promote water use efficiency.

7. The Permittee shall adopt, within their District, a Xeriscape and Irrigation Efficiency Policy limiting irrigation to no more than two days per week during off-peak pumping hours between 4:00 p.m. and 10:00 a.m. The Permittee, by January 31 of each year, shall provide a progress report to the District including documentation of the actions undertaken.

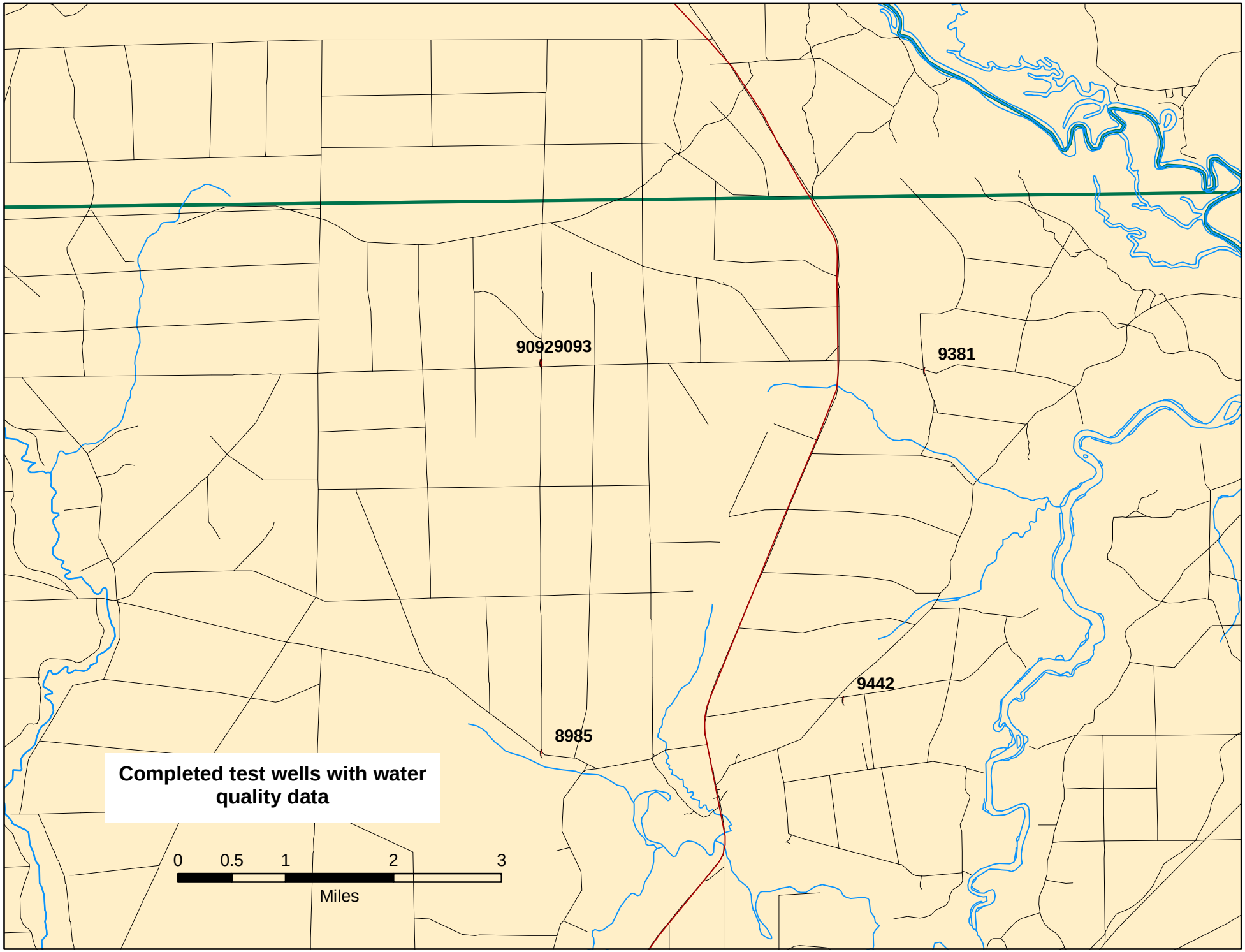
8. The Permittee shall actively promote the adoption, by Franklin County, of a Xeriscape and Irrigation Efficiency Ordinance. The Permittee, by January 31 of each year, shall provide a progress report to the District including documentation of the actions undertaken.

9. The Permittee shall continue to undertake a comprehensive public education and information campaign to promote water conservation and efficiency. The campaign shall, at least, consist of newspaper notices and articles, periodic mail-outs to customers and the posting of signs in the rooms of rental properties. The campaign shall be oriented to emphasize the program being implemented and water conservation in general. The campaign shall be designed to regularly reach permanent and part-time residents and tourists. The program shall be started by December 31, 2005. The Permittee, by January 31 of each year, shall provide a status report, including documentation, on the implementation of the required actions within its service area, an update on any actions undertaken and success achieved.

10. The Permittee shall mitigate any unexpected impacts attributable to the APWRD's withdrawals which interfere with any existing legal users of water or harm the resource. In the event of such an occurrence, APWRD shall provide a service connection to the impacted user or otherwise mitigate the impact. The Permittee shall report to the District the occurrence of any such impacts and shall identify the action undertaken to address the impacts.

11. The Permittee shall actively participate in any coordinated effort to investigate and develop a regional water supply system for southern Franklin County.

PERMIT MAILOUT ENCLOSURES: WATER USE SUMMARY REPORTING FORM A2-I
WATER CONSERVATION PAMPHLET
XERISCAPE PAMPHLET


90929093
9381
9442
8985
Completed test wells with water quality data
0
0.5
1
2
3
Miles

NWFWMD Well Inventory Database System
Site Schedule

Printed:February 19, 2008 02:49

site_schedule

Site Id	**295614084391101**	Site Type	**G**	NWF ID	**8985**
Well Name	**NWFWMD-GULLY BRANCH RD. TH-1**			State ID	**AAE1386**
Owner	**NWFWMD**				
Contact Person				Phone	**850-539-5999**
Street	**81 WATER MANAGEMENT DRIVE**				
City	**HAVANA**	State	**FL** Zip **32333**	County	**Franklin**
Latitude	**295614.863**	Longitude	**843911.498** Datum **WGS84**	Loc Method	**Global Positioning Satellite (GPS)**
Land Net	**S021T06SR04W**	Loc Accuracy	**0.3 < 3 meters**	Loc Source	**NWFWMD**
Elevation	**10.23**	Datum	**NGVD29**	Method	**non-PE/RLS instrument survey**
Accuracy	**< 0.1 feet**	Source	**NWFWMD**		
Location Map	**PICKETT BAY**	GW Region	**Woodville Karst Region**		

Site Use	**Test**	Water Use	**Test**
Depth Of Well	**281**	Depth Of Casing	**100**
MP Distance From LSD	**1.15**	Diameter	**10**
Construction Data Source	**Owner**	Casing Material	**Steel**
Finish	**Open Hole**	Driller License Number	**2226**
Date of Construction		Construction Method	**Reverse Rotary**
Screen Length			
Screened Intervals			
Water Level	**-3.96**	Measure Date	**01/18/2008**
WL Source	**NWFWMD**	WL Method	**Electric Tape**
Hydrogeologic Units	**Floridan Aquifer (Undiff)**		
Lift	**Submersible**	Power	**Electric**
Horsepower	**10**	Pump Intake	**45**
Normal Yield		Spcap Discharge	**550**
Spcap Source	**NWFWMD**	Spcap Discharge Method	**Totaling Meter**
Spcap Static Level		Spcap Pumping Level	
Spcap Drawdown	**5.2**	Hours Pumped	**64.8**
Spcap	**106**		
Field Water Quality		Discharge	
Temperature		pH	
Specific Conductance		Chloride	**15.9 on 6/27/2005 @ 12:15**
Consumptive Use Permit		Construction Permit	**T200402818**
FL Geological Survey #		Abandonment Permit	
DEP Public Supply #			
Project #'s	**87**		
Geophysical Log #	**45**	Depth Logged	**479**
Available LOG Data	**Caliper Electric Fluid Res. SP Gamma Temp**		
Visited By	**C.RICHARDS**	Date Visited	**12/14/2004**
Data Entered By	**C_RICHARDS**	Date Entered	**12/20/2004**
Last Updated By	**C_RICHARDS**	Last Updated	**01/30/2008**
Ambient Network			

***MP (top of 10" well casing) elevation established on 1/25/2007 by MI,SC,JT and ST. MPE=11.38 ft, LSE=10.23 ft (NGVD29). TBM#7 (12.03') is a nail set in 12" pine south of intersection of Gully Branch Rd and FR 209. GPS 29.937282211,-84.653345572 (KFB, 2/1/2007)*; 2nd MP (top of 12" steel protective casing) is 11.38ft+(3.16-1.15)ft= +13.39ft (NGVD29)**

(13-nov-2006, m. willson and m. terry; tagged well with label "AAE1386")

NWFWMD Well Inventory Database System
Site Schedule

Printed:February 19, 2008 02:49

site_schedule

Site Id	**295923084390701**	Site Type	**G**	NWF ID	**9092**
Well Name	**NWFWMD TRACTOR RD. TH-2**			State ID	**AAE1387**
Owner	**NWFWMD**				
Contact Person				Phone	**850-539-5999**
Street	**81 WATER MANAGEMENT DRIVE**				
City	**HAVANA**	State	**FL** Zip **32333**	County	**Franklin**
Latitude	**295923.54**	Longitude	**843907.204** Datum **WGS84**	Loc Method	**Global Positioning Satellite (GPS)**
Land Net	**S033T05SR04W**	Loc Accuracy	**0.3 < 3 meters**	Loc Source	**NWFWMD**
Elevation	**21.75**	Datum	**NGVD29**	Method	**non-PE/RLS instrument survey**
Accuracy	**< 0.1 feet**	Source	**NWFWMD**		
Location Map	**PICKETT BAY**	GW Region	**Woodville Karst Region**		

Site Use	**Monitor / OBS**	Water Use	**Test**

Depth Of Well	**476**	Depth Of Casing	**210**
MP Distance From LSD	**1.22**	Diameter	**10**
Construction Data Source	**NWFWMD**	Casing Material	**Steel**
Finish	**Open Hole**	Driller License Number	**2226**
Date of Construction	**06/07/2005**	Construction Method	**Reverse Rotary**
Screen Length			
Screened Intervals			

Water Level	**-14.37**	Measure Date	**01/28/2008**
WL Source	**NWFWMD**	WL Method	**Electric Tape**

Hydrogeologic Units	**Floridan Aquifer (Undiff)**

Lift		Power	
Horsepower		Pump Intake	
Normal Yield		Spcap Discharge	**522**
Spcap Source	**NWFWMD**	Spcap Discharge Method	**Totaling Meter**
Spcap Static Level		Spcap Pumping Level	
Spcap Drawdown	**4.2**	Hours Pumped	**74**
Spcap	**124**		

Field Water Quality		Discharge	
Temperature	**22.81 on 6/24/2005 @ 11:45**	pH	**7.02 on 6/24/2005 @ 11:45**
Specific Conductance	**908 on 6/24/2005 @ 11:45**	Chloride	**41 on 6/24/2005 @ 11:45**

Consumptive Use Permit		Construction Permit	**T200501532**
FL Geological Survey #	**18739**	Abandonment Permit	
DEP Public Supply #			
Project #'s	**106**		
Geophysical Log #	**46**	Depth Logged	**469**
Available LOG Data	**Caliper Electric Fluid Res. SP Gamma Temp**		

Visited By	**C.RICHARDS**	Date Visited	**06/07/2005**
Data Entered By	**C_RICHARDS**	Date Entered	**06/22/2005**
Last Updated By	**K_DEFOSSET**	Last Updated	**10/16/2007**
Ambient Network			

***Elevation top of 12" protective csg =+25.04 ft msl (NGVD29) established on 2/08/2007 by MI,SC,JT and ST. Calc LSE=+21.75 ft (NGVD29). TBM#12 (23.55') is a nail set in 12" pine at NE intersection of Tractor Rd, GPS 29.989373076,-84.651888607. (KFB, 2/9/2007)* MP = top of 10" well csg = +22.97 ft msl (NGVD29) based on calc LSE + SU. (13-nov-2006, m. willson; tagged well with the label "AAE1387".)**

Top of 12-inch protective casing has a SU of 3.29 ft. ("old" elevation based on assumed elev of tbm of 26.0 ft, see elevation document). Top of 10-inch csg is +1.22 ft lsd.

NWFWMD Well Inventory Database System
Site Schedule

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site_schedule

Site Id	**295923084390702**	Site Type	**G**	NWF ID	**9093**
Well Name	**NWFWMD TRACTOR RD. (C-2) MW-55S**			State ID	
Owner	**NWFWMD**				
Contact Person				Phone	**850-539-5999**
Street	**81 WATER MANAGEMENT DRIVE**				
City	**HAVANA**	State	**FL** Zip **32333**	County	**Franklin**
Latitude	**295923.99**	Longitude	**843907.589** Datum **WGS84**	Loc Method	**Global Positioning Satellite (GPS)**
Land Net	**S033T05SR04W**	Loc Accuracy	**0.3 < 3 meters**	Loc Source	**NWFWMD**
Elevation	**21.01**	Datum	**NGVD29**	Method	**non-PE/RLS instrument survey**
Accuracy	**< 0.1 feet**	Source	**NWFWMD**		
Location Map	**PICKETT BAY**	GW Region	**Woodville Karst Region**		

Site Use	**Properly Abandoned**	Water Use	**Monitor**

Depth Of Well	**260**	Depth Of Casing	**209**
MP Distance From LSD	**2.34**	Diameter	**4**
Construction Data Source	**NWFWMD**	Casing Material	**Steel**
Finish	**Open Hole**	Driller License Number	**2226**
Date of Construction		Construction Method	**Air Rotary**
Screen Length			
Screened Intervals			

Water Level	**-11.59**	Measure Date	**06/30/2005**
WL Source	**NWFWMD**	WL Method	**Electric Tape**

Hydrogeologic Units	**Floridan Aquifer (Undiff)**

Lift		Power	
Horsepower		Pump Intake	
Normal Yield		Spcap Discharge	
Spcap Source		Spcap Discharge Method	
Spcap Static Level		Spcap Pumping Level	
Spcap Drawdown		Hours Pumped	
Spcap			

Field Water Quality		Discharge	
Temperature	**23.2 on 6/27/2005 @ 14:20**	pH	**7.06 on 6/27/2005 @ 14:20**
Specific Conductance	**600 on 6/27/2005 @ 14:20**	Chloride	

Consumptive Use Permit		Construction Permit	**M200501564**
FL Geological Survey #		Abandonment Permit	**T200502709**
DEP Public Supply #			
Project #'s			
Geophysical Log #		Depth Logged	
Available LOG Data			

Visited By	**C.RICHARDS**	Date Visited	**06/21/2005**
Data Entered By	**C_RICHARDS**	Date Entered	**06/22/2005**
Last Updated By	**T_COUNTRYMAN**	Last Updated	**02/14/2007**
Ambient Network			

(02.14.07, TC) MP = top of 6" PVC protective csg = +2.34 ft lsd. Relative elevation of MP adjusted from +26.28 ft to +23.35 ft msl based on re-survey of test well (NWF9092) to known benchmark. New LSD = +21.01 ft msl.

(c.richards,22 june 2005; r=55.3 ft.; distance from 6" pvc mp to 4" steel casing = .52ft) (elevation based on assumed elev of tbm of 26.0 ft, see elevation document)(aka: MW1 used by JSA)

NWFWMD Well Inventory Database System
Site Schedule

Printed:February 19, 2008 02:49

site_schedule

Site Id	**295916084353502**	Site Type	**G**	NWF ID	**9381**
Well Name	**NWFWMD-ROCK LANDING RD. TH-3**			State ID	**AAE1383**
Owner	**NWFWMD**				
Contact Person				Phone	**850-539-5999**
Street	**81 WATER MANAGEMENT DRIVE**				
City	**HAVANA**	State	**FL** Zip **32333**	County	**Franklin**
Latitude	**295916.151**	Longitude	**843533.709** Datum **WGS84**	Loc Method	**Global Positioning Satellite (GPS)**
Land Net	**S001T06SR04W**	Loc Accuracy	**0.3 < 3 meters**	Loc Source	**NWFWMD**
Elevation	**18.08**	Datum	**NGVD29**	Method	**non-PE/RLS instrument survey**
Accuracy	**< 0.1 feet**	Source	**NWFWMD**		
Location Map	**MCINTYRE**	GW Region	**Apalachicola Embayment Region**		

Site Use	**Monitor / OBS**	Water Use	**Monitor**

Depth Of Well	**420**	Depth Of Casing	**211**
MP Distance From LSD	**3.98**	Diameter	**10**
Construction Data Source	**NWFWMD**	Casing Material	**Steel**
Finish	**Open Hole**	Driller License Number	**2226**
Date of Construction	**06/01/2006**	Construction Method	**Reverse Rotary**
Screen Length			
Screened Intervals			

Water Level	**-11.6**	Measure Date	**01/28/2008**
WL Source	**NWFWMD**	WL Method	**Electric Tape**

Hydrogeologic Units	**Floridan Aquifer (Undiff)**

Lift		Power	
Horsepower		Pump Intake	
Normal Yield		Spcap Discharge	**564**
Spcap Source	**NWFWMD**	Spcap Discharge Method	**Totaling Meter**
Spcap Static Level		Spcap Pumping Level	
Spcap Drawdown	**13.5**	Hours Pumped	**48**
Spcap	**41.8**		

Field Water Quality		Discharge	
Temperature	**23.9 on 6/16/2006 @ 10:53**	pH	
Specific Conductance	**1880 on 6/16/2006 @ 10:53**	Chloride	**22 on 6/28/2006 @ 10:00**

Consumptive Use Permit		Construction Permit	**T200602599**
FL Geological Survey #	**18740**	Abandonment Permit	
DEP Public Supply #			
Project #'s			
Geophysical Log #	**47**	Depth Logged	**653**
Available LOG Data	**Caliper Electric Fluid Res. Fluid Res. SP SP Gamma Gamma Temp Temp**		

Visited By	**C.RICHARDS**	Date Visited	**06/15/2006**
Data Entered By	**T_PRATT**	Date Entered	**04/06/2006**
Last Updated By	**K_BARRIOS**	Last Updated	**02/09/2007**
Ambient Network			

Well overdrilled to 658 below land surface, back plugged to 420 ft with neat cement, pump test run on the interval from 210 to 420 ft. APT conducted by JSA 26 june 2006 to 28 june 2006, average discharge = 564 gpm, well nwfid 9380 used as observation well. (c.richards, nov 13, 2006; mp = top of 12 inch protector casing = +3.98 lsd)
(07-nov-2006, m.willson, m.terry; GPS'd site using Trimble)

***MP (top of 12" protective casing) elevation established on 1/25/2006 by MI,SC and ST. MPE=22.06 ft, LSE=18.08 ft (NGVD29).**

NWFWMD Well Inventory Database System
Site Schedule

Printed:February 19, 2008 02:49

site_schedule

Site Id	**295638084362301**	Site Type	**G**	NWF ID	**9442**
Well Name	**NWFWMD JEFF SANDERS RD. TH-4**			State ID	**AAE1384**
Owner	**NWFWMD**				
Contact Person				Phone	**850-539-5999**
Street	**81 WATER MANAGEMENT DRIVE**				
City	**HAVANA**	State	**FL** Zip **32333**	County	**Franklin**
Latitude	**295637.415**	Longitude	**843622.891** Datum **WGS84**	Loc Method	**Global Positioning Satellite (GPS)**
Land Net	**S023T06SR04W**	Loc Accuracy	**0.3 < 3 meters**	Loc Source	**NWFWMD**
Elevation	**18.96**	Datum	**NGVD29**	Method	**non-PE/RLS instrument survey**
Accuracy	**< 0.1 feet**	Source	**NWFWMD**		
Location Map	**MCINTYRE**	GW Region	**Apalachicola Embayment Region**		

Site Use	**Monitor / OBS**	Water Use	**Monitor**

Depth Of Well	**374**	Depth Of Casing	**218**
MP Distance From LSD	**2.72**	Diameter	**10**
Construction Data Source	**NWFWMD**	Casing Material	**Steel**
Finish	**Open Hole**	Driller License Number	**2226**
Date of Construction	**08/15/2006**	Construction Method	**Reverse Rotary**
Screen Length			
Screened Intervals			

Water Level	**-11.53**	Measure Date	**01/28/2008**
WL Source	**NWFWMD**	WL Method	**Electric Tape**

Hydrogeologic Units	**Floridan Aquifer (Undiff)**

Lift		Power	
Horsepower		Pump Intake	
Normal Yield		Spcap Discharge	**534**
Spcap Source	**NWFWMD**	Spcap Discharge Method	**Totaling Meter**
Spcap Static Level		Spcap Pumping Level	
Spcap Drawdown	**21.2**	Hours Pumped	**60**
Spcap	**25.5**		

Field Water Quality		Discharge	
Temperature		pH	
Specific Conductance		Chloride	**38 on 8/30/2006 @ 11:00**

Consumptive Use Permit		Construction Permit	**T200603386**
FL Geological Survey #		Abandonment Permit	
DEP Public Supply #			
Project #'s			
Geophysical Log #	**49**	Depth Logged	**570**
Available LOG Data	**Caliper Electric Fluid Res. SP Gamma Temp**		

Visited By	**T_PRATT**	Date Visited	
Data Entered By	**T_PRATT**	Date Entered	**08/01/2006**
Last Updated By	**K_BARRIOS**	Last Updated	**02/09/2007**
Ambient Network			

(c.richards,sept 15,2006; well drilled to 650 ft reverse air with water samples collected, wireline logs only to 570 ft due hole problems, well plugged back to final total depth of 374 for APT) (07-nov-2006 m.willson, m. terry; GPS'd site with Trimble;mp=top of 12 in protector casing=+2.72 ft lsd). Well is actually located on Kelly Road, East of Jeff Sanders Road.

MP (top of 12" protective casing) elevation established on 1/24/2006 by MI,SC,JT and ST. MPE=21.68 ft, LSE=18.96 ft (NGVD29). TBM#2 (18.61') is a nail set in 20" oak at SE corner of Jeff Sanders and Kelly Rd. GPS 29.94361528,-84.60752083 (KFB, 2/1/2007)

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 05-1106
Client Project #: Tates Hell
Date Sampled: Jun 27, 2005; 12:15 PM
Jul 13, 2005; Invoice: 14550G05

Report Summary

Date Received: Jun 28, 2005

FCL Project Manager: Jean D. Smith

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
14550	Tates Hell C-1	EPA150.1	PCW	Main Lab	Drinking Water
	10 In Test Well	EPA180.1	PCW	Main Lab	
	NWFID 8985	EPA200.7	EVB	Main Lab	
		EPA200.8	EVB	Main Lab	
		EPA245.1	EVB	Main Lab	
		EPA300.0	YGS	Main Lab	
		EPA376.1	TRB	Main Lab	
		SM2120B	PCW	Main Lab	
		SM2150B	PCW	Main Lab	
		SM2540C	LCC	Main Lab	
		SM4500CN-E	PCW	Main Lab	
		SM5540C	TRB	Main Lab	
14551	Tates Hell MW-1S	EPA150.1	PCW	Main Lab	Drinking Water
	Site C-2 MW-55s	EPA180.1	PCW	Main Lab	
	NWFID 9093	EPA200.7	EVB	Main Lab	
		EPA200.8	EVB	Main Lab	
		EPA245.1	EVB	Main Lab	
		EPA300.0	YGS	Main Lab	
		EPA376.1	TRB	Main Lab	
		SM2120B	PCW	Main Lab	
		SM2150B	PCW	Main Lab	
		SM2540C	LCC	Main Lab	
		SM4500CN-E	PCW	Main Lab	
		SM5540C	TRB	Main Lab	

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

ACCREDITED IN ACCORDANCE WITH nelac

Jefferson S. Flowers, Ph.D.
President/Technical Director

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 05-1106
Client Project #: Tates Hell
Date Sampled: Jun 27, 2005; 12:15 PM
Jul 13, 2005; Invoice: 14550G05

Analysis Report

Lab #: 14550 **Desc:** Tates Hell C-1 10 Test Well NWFID 8985

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Aluminum	0.0200 U	mg/L	1.00	0.0200		10046475	EPA200.8	7429-90-5	06/29/05	
Antimony	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-36-0	06/29/05	
Arsenic	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-38-2	06/29/05	
Barium	0.0300	mg/L	1.00	0.00200		10046475	EPA200.8	7440-39-3	06/29/05	
Beryllium	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-41-7	06/29/05	
Cadmium	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-43-9	06/29/05	
Chromium	0.0200	mg/L	1.00	0.00100		10046475	EPA200.8	7440-47-3	06/29/05	
Copper	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-50-8	06/29/05	
Lead	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7439-92-1	06/29/05	
Nickel	0.00200	mg/L	1.00	0.00100		10046475	EPA200.8	7440-02-0	06/29/05	
Selenium	0.00400	mg/L	1.00	0.00200		10046475	EPA200.8	7782-49-2	06/29/05	
Silver	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-22-4	06/29/05	
Thallium	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-28-0	06/29/05	
Zinc	0.0100 U	mg/L	1.00	0.0100		10046475	EPA200.8	7440-66-6	06/29/05	
Lab pH (units)	8.37	pH	1.00	0.0500		10046576	EPA150.1	39-38-4	06/28/05	10:38 AM
Turbidity	3.06	NTU	1.00	0.0500		10046586	EPA180.1	G-019	06/28/05	03:30 PM
Iron	0.201	mg/L	1.00	0.0100		10046689	EPA200.7	7439-89-6	07/06/05	
Manganese	0.00500	mg/L	1.00	0.00500		10046689	EPA200.7	7439-96-5	07/06/05	
Sodium	10.7	mg/L	1.00	0.500		10046689	EPA200.7	7440-23-5	07/06/05	
Mercury	0.000200 U	mg/L	1.00	0.000200		10046723	EPA245.1	7439-97-6	06/30/05	
Cyanide	0.00500 U	mg/L	1.00	0.00500		10046725	SM4500CN-E		07/05/05	
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500		10046749	EPA300.0	14797-55-8	06/29/05	08:00 AM
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500		10046750	EPA300.0	14797-65-0	06/29/05	08:00 AM
Color	5.00 U	PCU	1.00	5.00		10046751	SM2120B		06/28/05	10:38 AM
TDS	390	mg/L	1.00	2.50		10046852	SM2540C	10-33-3	07/01/05	
Hydrogen Sulfide	1.05	mg/L	1.00	0.100		10046861	EPA376.1	18496-25-8	06/30/05	
Fluoride	0.296	mg/L	1.00	0.200		10046865	EPA300.0	16984-48-8	06/29/05	

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 05-1106
Client Project #: Tates Hell
Date Sampled: Jun 27, 2005; 12:15 PM
Jul 13, 2005; Invoice: 14550G05

Lab #: 14550 **Desc:** Tates Hell C-1 10 in Test Well NWFID 8985

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Sulfate	3.39	mg/L	1.00	1.00		10046866	EPA300.0	14808-79-8	06/29/05	
Foaming Agents (MBAS)	0.200 U	mg/L	1.00	0.200		10046867	SM5540C		06/28/05	10:38 AM
Chloride	15.9	mg/L	1.00	0.400		10046868	EPA300.0	16887-00-6	06/29/05	
Odor (TON)	1.00 U	TON	1.00	1.00		10046869	SM2150B		06/28/05	

Lab #: 14551 **Desc:** Tates Hell MW-1S Site C-2 MW-55s NWFID 9093

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Aluminum	0.0200 U	mg/L	1.00	0.0200		10046475	EPA200.8	7429-90-5	06/29/05	
Antimony	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-36-0	06/29/05	
Arsenic	0.00200	mg/L	1.00	0.00100		10046475	EPA200.8	7440-38-2	06/29/05	
Barium	0.0400	mg/L	1.00	0.00200		10046475	EPA200.8	7440-39-3	06/29/05	
Beryllium	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-41-7	06/29/05	
Cadmium	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-43-9	06/29/05	
Chromium	0.0160	mg/L	1.00	0.00100		10046475	EPA200.8	7440-47-3	06/29/05	
Copper	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-50-8	06/29/05	
Lead	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7439-92-1	06/29/05	
Nickel	0.00200	mg/L	1.00	0.00100		10046475	EPA200.8	7440-02-0	06/29/05	
Selenium	0.00700	mg/L	1.00	0.00200		10046475	EPA200.8	7782-49-2	06/29/05	
Silver	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-22-4	06/29/05	
Thallium	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-28-0	06/29/05	
Zinc	0.0100 U	mg/L	1.00	0.0100		10046475	EPA200.8	7440-66-6	06/29/05	
Lab pH (units)	7.53	pH	1.00	0.0500		10046576	EPA150.1	39-38-4	06/28/05	10:38 AM
Turbidity	10.9	NTU	1.00	0.0500		10046586	EPA180.1	G-019	06/28/05	03:30 PM
Iron	0.216	mg/L	1.00	0.0100		10046689	EPA200.7	7439-89-6	07/06/05	
Manganese	0.00500 U	mg/L	1.00	0.00500		10046689	EPA200.7	7439-96-5	07/06/05	
Sodium	10.9	mg/L	1.00	0.500		10046689	EPA200.7	7440-23-5	07/06/05	
Mercury	0.000200 U	mg/L	1.00	0.000200		10046723	EPA245.1	7439-97-6	06/30/05	
Cyanide	0.00500 U	mg/L	1.00	0.00500		10046725	SM4500CN-E		07/05/05	

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 05-1106
Client Project #: Tates Hell
Date Sampled: Jun 27, 2005; 12:15 PM
Jul 13, 2005; Invoice: 14550G05

Lab #: 14551 **Desc:** Tates Hell MW-1S Site C-2 MW-55s NWFID 9093

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500		10046749	EPA300.0	14797-55-8	06/29/05	08:00 AM
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500		10046750	EPA300.0	14797-65-0	06/29/05	08:00 AM
Color	5.00 U	PCU	1.00	5.00		10046751	SM2120B		06/28/05	10:38 AM
TDS	346	mg/L	1.00	2.50		10046852	SM2540C	10-33-3	07/01/05	
Hydrogen Sulfide	1.43	mg/L	1.00	0.100		10046861	EPA376.1	18496-25-8	06/30/05	
Fluoride	0.241	mg/L	1.00	0.200		10046865	EPA300.0	16984-48-8	06/29/05	
Sulfate	7.20	mg/L	1.00	1.00		10046866	EPA300.0	14808-79-8	06/29/05	
Foaming Agents (MBAS)	0.200 U	mg/L	1.00	0.200		10046867	SM5540C		06/28/05	10:38 AM
Chloride	12.6	mg/L	1.00	0.400		10046868	EPA300.0	16887-00-6	06/29/05	
Odor (TON)	1.00 U	TON	1.00	1.00		10046869	SM2150B		06/28/05	

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Havana,FL 32333

PO #: 05-1106
Client Project #: Tates Hell
Date Sampled: Jun 27, 2005; 12:15 PM
Jul 13, 2005; Invoice: 14550G05

Quality Report

Quality Control Batch: 10046475 **Analyst:** EVB

Blank	**Result**	**Units**
Aluminum	0.0200U	mg/L
Antimony	0.00100	mg/L
Arsenic	0.00100U	mg/L
Barium	0.00200U	mg/L
Beryllium	0.00100U	mg/L
Cadmium	0.00100U	mg/L
Chromium	0.00100U	mg/L
Copper	0.00100U	mg/L
Lead	0.00100U	mg/L
Nickel	0.00100U	mg/L
Selenium	0.00200U	mg/L
Silver	0.00100U	mg/L
Thallium	0.00100U	mg/L
Zinc	0.0100U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Aluminum	0.0445	mg/L	0.0500	89.00	71.60-130.40
Antimony	0.0485	mg/L	0.0500	97.00	79.60-115.60
Arsenic	0.0473	mg/L	0.0500	94.60	82.20-113.60
Barium	0.0498	mg/L	0.0500	99.60	80.00-121.00
Beryllium	0.0553	mg/L	0.0500	110.60	82.20-131.20
Cadmium	0.0497	mg/L	0.0500	99.40	81.80-114.20
Chromium	0.0467	mg/L	0.0500	93.40	81.80-119.20
Copper	0.0480	mg/L	0.0500	96.00	81.60-120.00
Lead	0.0477	mg/L	0.0500	95.40	84.80-116.00
Nickel	0.0468	mg/L	0.0500	93.60	78.00-123.60
Selenium	0.0470	mg/L	0.0500	94.00	77.00-117.20

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Havana,FL 32333

PO #: 05-1106
Client Project #: Tates Hell
Date Sampled: Jun 27, 2005; 12:15 PM
Jul 13, 2005; Invoice: 14550G05

Quality Control Batch: 10046475 **Analyst:** EVB

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Silver	0.0501	mg/L	0.0500	100.20	73.80-121.00
Thallium	0.0500	mg/L	0.0500	100.00	77.40-121.60
Zinc	0.0477	mg/L	0.0500	95.40	72.60-123.60

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Aluminum	0.0471	mg/L	0.0500	87.60	45.22-157.79	0.00330
Antimony	0.0525	mg/L	0.0500	102.00	60.78-138.06	0.00150
Arsenic	0.0588	mg/L	0.0500	117.60	74.00-150.00	0.00100U
Barium	0.0808	mg/L	0.0500	121.40	64.34-141.51	0.0201
Beryllium	0.0628	mg/L	0.0500	125.60	77.00-157.40	0.00100U
Cadmium	0.0542	mg/L	0.0500	108.40	67.80-136.80	0.00100U
Chromium	0.0582	mg/L	0.0500	101.80	63.70-134.90	0.00730
Copper	0.817	mg/L	0	0.00	42.16-142.16	1.02
Lead	0.290	mg/L	0.0500	24.00	65.55-132.32	0.278
Nickel	0.0554	mg/L	0.0500	97.40	52.56-146.91	0.00670
Selenium	0.0633	mg/L	0.0500	124.40	55.19-167.51	0.00110
Silver	0.0532	mg/L	0.0500	106.40	37.80-141.60	0.00100U
Thallium	0.0640	mg/L	0.0500	128.00	64.20-135.80	0.00100U
Zinc	0.248	mg/L	0.0500	-76.00	41.07-163.99	0.286

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Aluminum	0.0504	mg/L	0.0500	94.20	45.22-157.79	0.00330	6.77	27.20
Antimony	0.0536	mg/L	0.0500	104.20	60.78-138.06	0.00150	2.07	20.40
Arsenic	0.0581	mg/L	0.0500	116.20	74.00-150.00	0.00100U	1.20	23.20
Barium	0.0807	mg/L	0.0500	121.20	64.34-141.51	0.0201	0.12	24.20
Beryllium	0.0615	mg/L	0.0500	123.00	77.00-157.40	0.00100U	2.09	26.20
Cadmium	0.0543	mg/L	0.0500	108.60	67.80-136.80	0.00100U	0.18	23.80
Chromium	0.0562	mg/L	0.0500	97.80	63.70-134.90	0.00730	3.50	18.22
Copper	0.913	mg/L	0	0.00	42.16-142.16	1.02	11.10	15.00

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 05-1106
Client Project #: Tates Hell
Date Sampled: Jun 27, 2005; 12:15 PM
Jul 13, 2005; Invoice: 14550G05

Quality Control Batch: 10046475 **Analyst:** EVB

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Lead	0.288	mg/L	0.0500	20.00	65.55-132.32	0.278	0.69	19.10
Nickel	0.0554	mg/L	0.0500	97.40	52.56-146.91	0.00670	0.00	27.20
Selenium	0.0648	mg/L	0.0500	127.40	55.19-167.51	0.00110	2.34	34.00
Silver	0.0532	mg/L	0.0500	106.40	37.80-141.60	0.00100U	0.00	30.60
Thallium	0.0646	mg/L	0.0500	129.20	64.20-135.80	0.00100U	0.93	20.80
Zinc	0.296	mg/L	0.0500	20.00	41.07-163.99	0.286	17.65	36.40

Quality Control Batch: 10046689 **Analyst:** EVB

Blank	**Result**	**Units**
Iron	0.0100U	mg/L
Manganese	0.00500U	mg/L
Sodium	0.500U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Iron	1.91	mg/L	2.00	95.50	89.50-112.50
Manganese	1.99	mg/L	2.00	99.50	87.50-114.50
Sodium	1.92	mg/L	2.00	96.00	82.00-120.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Iron	7.77	mg/L	10.0	77.40	79.86-129.61	0.0298
Manganese	8.04	mg/L	10.0	80.32	79.43-131.89	0.00825
Sodium	22.6	mg/L	10.0	107.00	55.71-139.27	11.9

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Iron	7.26	mg/L	10.0	72.30	79.86-129.61	0.0298	6.79	17.20
Manganese	7.42	mg/L	10.0	74.12	79.43-131.89	0.00825	8.02	18.50
Sodium	19.7	mg/L	10.0	78.00	55.71-139.27	11.9	13.71	25.00

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PO #: 05-1106
Client Project #: Tates Hell
Date Sampled: Jun 27, 2005; 12:15 PM
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Quality Control Batch: 10046723 **Analyst:** EVB

Blank	**Result**	**Units**
Mercury	0.000200U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Mercury	0.00518	mg/L	0.00500	103.60	88.80-117.80

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Mercury	0.00503	mg/L	0.00500	100.60	88.00-118.20	0.000200U

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Mercury	0.00518	mg/L	0.00500	103.60	88.00-118.20	0.000200U	2.94	9.38

Quality Control Batch: 10046749 **Analyst:** YGS

Blank	**Result**	**Units**
Nitrate(as N)	0.0500U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Nitrate(as N)	0.800	mg/L	0.800	100.00	80.75-115.50

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Nitrate(as N)	0.532	mg/L	0.500	103.36	47.36-155.28	0.0152

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Nitrate(as N)	0.637	mg/L	0.500	124.36	47.36-155.28	0.0152	17.96	32.60

Quality Control Batch: 10046750 **Analyst:** YGS

Blank	**Result**	**Units**
Nitrite(as N)	0.0500U	mg/L

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Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim
Nitrite(as N)	0.718	mg/L	0.800	89.75	82.12-118.12

Matrix Spike	Result	Units	Spike	%REC	%REC Lim	Sample
Nitrite(as N)	0.579	mg/L	0.500	113.83	49.23-154.75	0.00987

Matrix Spike Duplicate	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Nitrite(as N)	0.803	mg/L	0.500	158.63	49.23-154.75	0.00987	32.42	33.60

Quality Control Batch: 10046861 **Analyst:** TRB

Blank	Result	Units
Hydrogen Sulfide	0.100U	mg/L

Quality Control Batch: 10046865 **Analyst:** YGS

Blank	Result	Units
Fluoride	0.200U	mg/L

Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim
Fluoride	0.800	mg/L	0.800	100.00	84.00-112.12

Matrix Spike	Result	Units	Spike	%REC	%REC Lim	Sample
Fluoride	0.425	mg/L	0.400	89.03	45.21-151.42	0.0689

Matrix Spike Duplicate	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Fluoride	0.315	mg/L	0.400	61.52	45.21-151.42	0.0689	29.73	32.50

Quality Control Batch: 10046866 **Analyst:** YGS

Blank	Result	Units

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Quality Control Batch: 10046866 **Analyst:** YGS

Blank	**Result**	**Units**
Sulfate	1.00U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Sulfate	4.06	mg/L	4.00	101.50	78.00-119.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Sulfate	6.96	mg/L	5.00	92.00	49.05-141.30	2.36

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Sulfate	5.06	mg/L	5.00	54.00	49.05-141.30	2.36	31.61	30.80

Quality Control Batch: 10046868 **Analyst:** YGS

Blank	**Result**	**Units**
Chloride	0.400U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Chloride	1.43	mg/L	1.60	89.37	83.12-116.87

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Chloride	23.9	mg/L	4.00	102.50	54.62-142.86	19.8

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Chloride	22.0	mg/L	4.00	55.00	54.62-142.86	19.8	8.28	27.00

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PO #: 05-1106
Client Project #: Tates Hell
Date Sampled: Jun 27, 2005; 12:15 PM
Jul 13, 2005; Invoice: 14550G05

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

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PO #: 05-1106
Client Project #: n/a
Date Sampled: Jun 23, 2005; 04:10 PM
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Invoice

Description	Amount	Units	Extension
H2S	15.00	1	15.00
INO+Secs93 WO Asb	295.00	1	295.00
TB	15.00	1	15.00
TOTAL			325.00

This invoice is due upon receipt.

VISA, MasterCard, and American Express cards will be accepted.

There will be a 1.5% service charge per month on all unpaid balances.

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PO #: 05-1106
Client Project #: n/a
Date Sampled: Jun 23, 2005; 04:10 PM
Jul 13, 2005; Invoice: 14526G05

Report Summary

Date Received: Jun 24, 2005

FCL Project Manager: Jean D. Smith

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
14526	TATES HELL	EPA150.1	PCW	Main Lab	Drinking Water
		EPA180.1	PCW	Main Lab	
		EPA200.7	EVB	Main Lab	
		EPA200.8	EVB	Main Lab	
		EPA245.1	EVB	Main Lab	
		EPA300.0	YGS	Main Lab	
		EPA376.1	TRB	Main Lab	
		SM2120B	PCW	Main Lab	
		SM2150B	PCW	Main Lab	
		SM2540C	LCC	Main Lab	
		SM4500CN-E	PCW	Main Lab	
		SM5540C	TRB	Main Lab	

Certificate of Results
Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

ACCREDITED IN ACCORDANCE WITH nelac

Jefferson S. Flowers, Ph.D.
President/Technical Director

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PO #: 05-1106
Client Project #: n/a
Date Sampled: Jun 23, 2005; 04:10 PM
Jul 13, 2005; Invoice: 14526G05

Analysis Report

Lab #: 14526 **Desc:** TATES HELL

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500		10046356	EPA300.0	14797-65-0	06/24/05	12:03 PM
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500		10046357	EPA300.0	14797-55-8	06/24/05	12:03 PM
Iron	0.0170	mg/L	1.00	0.0100		10046428	EPA200.7	7439-89-6	06/28/05	
Manganese	0.00500 U	mg/L	1.00	0.00500		10046428	EPA200.7	7439-96-5	06/28/05	
Sodium	23.9	mg/L	1.00	0.500		10046428	EPA200.7	7440-23-5	06/28/05	
Aluminum	0.0200 U	mg/L	1.00	0.0200		10046475	EPA200.8	7429-90-5	06/29/05	
Antimony	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-36-0	06/29/05	
Arsenic	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-38-2	06/29/05	
Barium	0.0600	mg/L	1.00	0.00200		10046475	EPA200.8	7440-39-3	06/29/05	
Beryllium	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-41-7	06/29/05	
Cadmium	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-43-9	06/29/05	
Chromium	0.0140	mg/L	1.00	0.00100		10046475	EPA200.8	7440-47-3	06/29/05	
Copper	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-50-8	06/29/05	
Lead	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7439-92-1	06/29/05	
Nickel	0.00300	mg/L	1.00	0.00100		10046475	EPA200.8	7440-02-0	06/29/05	
Selenium	0.0220	mg/L	1.00	0.00200		10046475	EPA200.8	7782-49-2	06/29/05	
Silver	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-22-4	06/29/05	
Thallium	0.00100 U	mg/L	1.00	0.00100		10046475	EPA200.8	7440-28-0	06/29/05	
Zinc	0.0100 U	mg/L	1.00	0.0100		10046475	EPA200.8	7440-66-6	06/29/05	
Lab pH (units)	7.03	pH	1.00	0.0500		10046599	EPA150.1	39-38-4	06/24/05	12:03 PM
TDS	598	mg/L	1.00	2.50		10046613	SM2540C	10-33-3	06/28/05	
Mercury	0.000200 U	mg/L	1.00	0.000200		10046723	EPA245.1	7439-97-6	06/30/05	
Cyanide	0.00500 U	mg/L	1.00	0.00500		10046725	SM4500CN-E		07/05/05	
Foaming Agents (MBAS)	0.200 U	mg/L	1.00	0.200		10046855	SM5540C		07/06/05	12:03 PM
Fluoride	0.200 U	mg/L	1.00	0.200		10046858	EPA300.0	16984-48-8	06/24/05	
Chloride	19.5	mg/L	1.00	0.400		10046859	EPA300.0	16887-00-6	06/24/05	
Sulfate	106	mg/L	1.00	1.00		10046860	EPA300.0	14808-79-8	06/24/05	

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PO #: 05-1106
Client Project #: n/a
Date Sampled: Jun 23, 2005; 04:10 PM
Jul 13, 2005; Invoice: 14526G05

Lab #: 14526 **Desc:** TATES HELL

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Hydrogen Sulfide	2.95	mg/L	1.00	0.100		10046861	EPA376.1	18496-25-8	06/30/05	
Odor (TON)	1.00 U	TON	1.00	1.00		10046862	SM2150B		06/24/05	
Color	5.00 U	PCU	1.00	5.00		10046863	SM2120B		06/24/05	01:00 PM
Turbidity	0.120	NTU	1.00	0.0500		10046864	EPA180.1	G-019	06/24/05	12:00 PM

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PO #: 05-1106
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Quality Report

Quality Control Batch: 10046356 **Analyst:** YGS

Blank	**Result**	**Units**
Nitrite(as N)	0.0500U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Nitrite(as N)	0.824	mg/L	0.800	103.00	82.12-118.12

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Nitrite(as N)	0.642	mg/L	1.00	59.30	49.19-154.43	0.0490

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Nitrite(as N)	0.655	mg/L	1.00	60.60	49.19-154.43	0.0490	2.00	33.60

Quality Control Batch: 10046357 **Analyst:** YGS

Blank	**Result**	**Units**
Nitrate(as N)	0.0500U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Nitrate(as N)	0.785	mg/L	0.800	98.13	80.75-115.50

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Nitrate(as N)	0.871	mg/L	1.00	83.41	47.35-155.27	0.0369

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Nitrate(as N)	0.875	mg/L	1.00	83.81	47.35-155.27	0.0369	0.46	32.70

Quality Control Batch: 10046428 **Analyst:** EVB

Blank	**Result**	**Units**
Iron	0.0100U	mg/L

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PO #: 05-1106
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Date Sampled: Jun 23, 2005; 04:10 PM
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Quality Control Batch: 10046428 **Analyst:** EVB

Blank	**Result**	**Units**
Manganese	0.00500U	mg/L
Sodium	0.500U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Iron	1.75	mg/L	2.00	87.50	89.50-112.50
Manganese	1.80	mg/L	2.00	90.00	87.50-114.50
Sodium	1.92	mg/L	2.00	96.00	82.00-120.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Iron	4.47	mg/L	5.00	89.06	79.93-129.16	0.0169
Manganese	4.53	mg/L	5.00	90.60	79.40-132.00	0.00500U
Sodium	28.1	mg/L	5.00	84.00	55.71-139.45	23.9

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Iron	4.86	mg/L	5.00	96.86	79.93-129.16	0.0169	8.36	17.18
Manganese	4.91	mg/L	5.00	98.20	79.40-132.00	0.00500U	8.05	18.46
Sodium	28.0	mg/L	5.00	82.00	55.71-139.45	23.9	0.36	25.00

Quality Control Batch: 10046475 **Analyst:** EVB

Blank	**Result**	**Units**
Aluminum	0.0200U	mg/L
Antimony	0.00100	mg/L
Arsenic	0.00100U	mg/L
Barium	0.00200U	mg/L
Beryllium	0.00100U	mg/L
Cadmium	0.00100U	mg/L
Chromium	0.00100U	mg/L
Copper	0.00100U	mg/L
Lead	0.00100U	mg/L

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PO #: 05-1106
Client Project #: n/a
Date Sampled: Jun 23, 2005; 04:10 PM
Jul 13, 2005; Invoice: 14526G05

Quality Control Batch: 10046475 **Analyst:** EVB

Blank	**Result**	**Units**
Nickel	0.00100U	mg/L
Selenium	0.00200U	mg/L
Silver	0.00100U	mg/L
Thallium	0.00100U	mg/L
Zinc	0.0100U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Aluminum	0.0445	mg/L	0.0500	89.00	71.60-130.40
Antimony	0.0485	mg/L	0.0500	97.00	79.60-115.60
Arsenic	0.0473	mg/L	0.0500	94.60	82.20-113.60
Barium	0.0498	mg/L	0.0500	99.60	80.00-121.00
Beryllium	0.0553	mg/L	0.0500	110.60	82.20-131.20
Cadmium	0.0497	mg/L	0.0500	99.40	81.80-114.20
Chromium	0.0467	mg/L	0.0500	93.40	81.80-119.20
Copper	0.0480	mg/L	0.0500	96.00	81.60-120.00
Lead	0.0477	mg/L	0.0500	95.40	84.80-116.00
Nickel	0.0468	mg/L	0.0500	93.60	78.00-123.60
Selenium	0.0470	mg/L	0.0500	94.00	77.00-117.20
Silver	0.0501	mg/L	0.0500	100.20	73.80-121.00
Thallium	0.0500	mg/L	0.0500	100.00	77.40-121.60
Zinc	0.0477	mg/L	0.0500	95.40	72.60-123.60

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Aluminum	0.0471	mg/L	0.0500	87.60	45.22-157.79	0.00330
Antimony	0.0525	mg/L	0.0500	102.00	60.78-138.06	0.00150
Arsenic	0.0588	mg/L	0.0500	117.60	74.00-150.00	0.00100U
Barium	0.0808	mg/L	0.0500	121.40	64.34-141.51	0.0201
Beryllium	0.0628	mg/L	0.0500	125.60	77.00-157.40	0.00100U
Cadmium	0.0542	mg/L	0.0500	108.40	67.80-136.80	0.00100U

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 05-1106
Client Project #: n/a
Date Sampled: Jun 23, 2005; 04:10 PM
Jul 13, 2005; Invoice: 14526G05

Quality Control Batch: 10046475 **Analyst:** EVB

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Chromium	0.0582	mg/L	0.0500	101.80	63.70-134.90	0.00730
Copper	0.817	mg/L	0	0.00	42.16-142.16	1.02
Lead	0.290	mg/L	0.0500	24.00	65.55-132.32	0.278
Nickel	0.0554	mg/L	0.0500	97.40	52.56-146.91	0.00670
Selenium	0.0633	mg/L	0.0500	124.40	55.19-167.51	0.00110
Silver	0.0532	mg/L	0.0500	106.40	37.80-141.60	0.00100U
Thallium	0.0640	mg/L	0.0500	128.00	64.20-135.80	0.00100U
Zinc	0.248	mg/L	0.0500	-76.00	41.07-163.99	0.286

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Aluminum	0.0504	mg/L	0.0500	94.20	45.22-157.79	0.00330	6.77	27.20
Antimony	0.0536	mg/L	0.0500	104.20	60.78-138.06	0.00150	2.07	20.40
Arsenic	0.0581	mg/L	0.0500	116.20	74.00-150.00	0.00100U	1.20	23.20
Barium	0.0807	mg/L	0.0500	121.20	64.34-141.51	0.0201	0.12	24.20
Beryllium	0.0615	mg/L	0.0500	123.00	77.00-157.40	0.00100U	2.09	26.20
Cadmium	0.0543	mg/L	0.0500	108.60	67.80-136.80	0.00100U	0.18	23.80
Chromium	0.0562	mg/L	0.0500	97.80	63.70-134.90	0.00730	3.50	18.22
Copper	0.913	mg/L	0	0.00	42.16-142.16	1.02	11.10	15.00
Lead	0.288	mg/L	0.0500	20.00	65.55-132.32	0.278	0.69	19.10
Nickel	0.0554	mg/L	0.0500	97.40	52.56-146.91	0.00670	0.00	27.20
Selenium	0.0648	mg/L	0.0500	127.40	55.19-167.51	0.00110	2.34	34.00
Silver	0.0532	mg/L	0.0500	106.40	37.80-141.60	0.00100U	0.00	30.60
Thallium	0.0646	mg/L	0.0500	129.20	64.20-135.80	0.00100U	0.93	20.80
Zinc	0.296	mg/L	0.0500	20.00	41.07-163.99	0.286	17.65	36.40

Quality Control Batch: 10046723 **Analyst:** EVB

Blank	**Result**	**Units**

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PO #: 05-1106
Client Project #: n/a
Date Sampled: Jun 23, 2005; 04:10 PM
Jul 13, 2005; Invoice: 14526G05

Quality Control Batch: 10046723 **Analyst:** EVB

Blank	**Result**	**Units**
Mercury	0.000200U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Mercury	0.00518	mg/L	0.00500	103.60	88.80-117.80

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Mercury	0.00503	mg/L	0.00500	100.60	88.00-118.20	0.000200U

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Mercury	0.00518	mg/L	0.00500	103.60	88.00-118.20	0.000200U	2.94	9.38

Quality Control Batch: 10046858 **Analyst:** YGS

Blank	**Result**	**Units**
Fluoride	0.200U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Fluoride	0.813	mg/L	0.800	101.62	84.00-112.12

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Fluoride	0.821	mg/L	0.500	88.00	45.29-150.96	0.381

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Fluoride	0.768	mg/L	0.500	77.40	45.29-150.96	0.381	6.67	32.40

Quality Control Batch: 10046859 **Analyst:** YGS

Blank	**Result**	**Units**
Chloride	0.400U	mg/L

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Date Sampled: Jun 23, 2005; 04:10 PM
Jul 13, 2005; Invoice: 14526G05

Quality Control Batch: 10046859 **Analyst:** YGS

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Chloride	1.64	mg/L	1.60	102.50	83.12-116.87

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Chloride	11.2	mg/L	4.00	104.25	54.58-142.34	7.03

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Chloride	10.9	mg/L	4.00	96.75	54.58-142.34	7.03	2.71	27.00

Quality Control Batch: 10046860 **Analyst:** YGS

Blank	**Result**	**Units**
Sulfate	1.00U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Sulfate	3.66	mg/L	4.00	91.50	78.00-119.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Sulfate	27.3	mg/L	2.50	92.00	49.09-141.82	25.0

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Sulfate	28.2	mg/L	2.50	128.00	49.09-141.82	25.0	3.24	30.72

Quality Control Batch: 10046861 **Analyst:** TRB

Blank	**Result**	**Units**
Hydrogen Sulfide	0.100U	mg/L

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PO #: 05-1106
Client Project #: n/a
Date Sampled: Jun 23, 2005; 04:10 PM
Jul 13, 2005; Invoice: 14526G05

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 06-1164
Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Report Summary

Date Received: Aug 31, 2006

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
22990DW1	TH4-Pump Test	EPA150.1	LCC	Main Lab	Drinking Water
		EPA180.1	PCW	Main Lab	
		EPA200.7	EVB	Main Lab	
		EPA200.8	EVB	Main Lab	
		EPA245.1	EVB	Main Lab	
		EPA300.0	YGS	Main Lab	
		EPA376.1	TRB	Main Lab	
		SM2120B	PCW	Main Lab	
		SM2150B	PCW	Main Lab	
		SM2540C	RMV	Main Lab	
		SM4500-CN E	PCW	Main Lab	
		SM5540C	PCW	Main Lab	

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

ACCREDITED IN ACCORDANCE WITH nelac

Jefferson S. Flowers, Ph.D.
President/Technical Director

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 06-1164
Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Analysis Report

Lab #: 22990DW1 **Sampled:** 08/30/06 11:00 AM **Desc:** TH4-Pump Test

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Iron	0.0100 U	mg/L	1.00	0.0100	0.0200	10069896	EPA200.7	7439-89-6	08/31/06	
Manganese	0.0100 U	mg/L	1.00	0.0100	0.0200	10069896	EPA200.7	7439-96-5	08/31/06	
Sodium	21.3	mg/L	1.00	0.500	1.00	10069896	EPA200.7	7440-23-5	08/31/06	
Lab pH (units)	7.40	pH	1.00	0.0100	0.0100	10069925	EPA150.1	39-38-4	08/31/06	03:30 PM
Aluminum	0.0200 U	mg/L	1.00	0.0200	0.0400	10070011	EPA200.8	7429-90-5	08/31/06	
Antimony	0.00100 U	mg/L	1.00	0.00100	0.00200	10070011	EPA200.8	7440-36-0	08/31/06	
Arsenic	0.00100 U	mg/L	1.00	0.00100	0.00200	10070011	EPA200.8	7440-38-2	08/31/06	
Barium	0.0986	mg/L	1.00	0.00200	0.00400	10070011	EPA200.8	7440-39-3	08/31/06	
Beryllium	0.00100 U	mg/L	1.00	0.00100	0.00200	10070011	EPA200.8	7440-41-7	08/31/06	
Cadmium	0.00100 U	mg/L	1.00	0.00100	0.00200	10070011	EPA200.8	7440-43-9	08/31/06	
Chromium	0.00950	mg/L	1.00	0.00100	0.00200	10070011	EPA200.8	7440-47-3	08/31/06	
Copper	0.00157 I	mg/L	1.00	0.00100	0.00200	10070011	EPA200.8	7440-50-8	08/31/06	
Lead	0.00100 U	mg/L	1.00	0.00100	0.00200	10070011	EPA200.8	7439-92-1	08/31/06	
Nickel	0.00258 I	mg/L	1.00	0.00200	0.00400	10070011	EPA200.8	7440-02-0	08/31/06	
Selenium	0.00701	mg/L	1.00	0.00200	0.00400	10070011	EPA200.8	7782-49-2	08/31/06	
Silver	0.00100 U	mg/L	1.00	0.00100	0.00200	10070011	EPA200.8	7440-22-4	08/31/06	
Thallium	0.00100 U	mg/L	1.00	0.00100	0.00200	10070011	EPA200.8	7440-28-0	08/31/06	
Zinc	0.0100 U	mg/L	1.00	0.0100	0.0200	10070011	EPA200.8	7440-66-6	08/31/06	
Turbidity	0.115	NTU	1.00	0.0100	0.0200	10070030	EPA180.1	G-019	09/01/06	09:00 AM
Mercury	0.000200 U	mg/L	1.00	0.000200	0.000400	10070050	EPA245.1	7439-97-6	09/05/06	
TDS	464	mg/L	1.00	2.50	5.00	10070097	SM2540C	10-33-3	09/01/06	
Color	1.00 U	PCU	1.00	1.00	2.00	10070127	SM2120B		08/31/06	09:00 AM
Odor (TON)	2.00	TON	1.00	1.00	2.00	10070136	SM2150B		08/31/06	
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10070144	EPA300.0	14797-55-8	09/01/06	10:45 AM
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10070147	EPA300.0	14797-65-0	09/01/06	10:45 AM
Hydrogen Sulfide	3.22	mg/L	1.00	0.00100	0.00200	10070191	EPA376.1	7783-06-4	09/06/06	

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 06-1164
Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Lab #: 22990DW1 **Sampled:** 08/30/06 11:00 AM **Desc:** TH4-Pump Test

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Foaming Agents (MBAS)	0.200 U	mg/L	1.00	0.200	0.400	10070281	SM5540C		08/31/06	01:00 PM
Chloride	38.0	mg/L	1.00	0.400	0.800	10070445	EPA300.0	16887-00-6	09/01/06	
Fluoride	0.705	mg/L	1.00	0.200	0.400	10070448	EPA300.0	16984-48-8	09/01/06	
Sulfate	70.7	mg/L	1.00	1.00	2.00	10070449	EPA300.0	14808-79-8	09/01/06	
Cyanide	0.00500 U	mg/L	1.00	0.00500	0.0100	10070562	SM4500-CN E	57-12-5	09/11/06	

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81 Water Managememt Dr.
Havana,FL 32333

PO #: 06-1164
Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Quality Report

Quality Control Batch: 10069896 **Analyst:** EVB

Blank	**Result**	**Units**
Iron	0.0100U	mg/L
Manganese	0.0100U	mg/L
Sodium	0.500U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Iron	4.79	mg/L	5.00	95.74	49.96-144.28
Manganese	4.92	mg/L	5.00	98.33	51.20-143.54
Sodium	4.61	mg/L	5.00	92.10	51.19-143.53

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Iron	6.14	mg/L	5.00	122.84	52.63-147.67	0.0100U
Manganese	6.42	mg/L	5.00	128.39	52.94-147.44	0.0100U
Sodium	9.35	mg/L	5.00	128.30	52.93-147.43	2.94

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Iron	5.73	mg/L	5.00	114.60	52.63-147.67	0.0100U	6.94	25.53
Manganese	6.00	mg/L	5.00	119.96	52.94-147.44	0.0100U	6.79	25.34
Sodium	8.85	mg/L	5.00	118.13	52.93-147.43	2.94	5.59	25.60

Quality Control Batch: 10069925 **Analyst:** LCC

Blank	**Result**	**Units**
Lab pH (units)	0.0100U	pH

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Lab pH (units)	7.05	pH	7.00	100.70	96.50-102.50

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PO #: 06-1164
Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Quality Control Batch: 10070011 **Analyst:** EVB

Blank	**Result**	**Units**
Aluminum	0.0200U	mg/L
Antimony	0.00100U	mg/L
Arsenic	0.00100U	mg/L
Barium	0.00200U	mg/L
Beryllium	0.00100U	mg/L
Cadmium	0.00100U	mg/L
Chromium	0.00100U	mg/L
Copper	0.00100U	mg/L
Lead	0.00100U	mg/L
Nickel	0.00200U	mg/L
Selenium	0.00200U	mg/L
Silver	0.00100U	mg/L
Thallium	0.00100U	mg/L
Zinc	0.0100U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Aluminum	0.0899	mg/L	0.100	89.90	61.41-136.83
Antimony	0.101	mg/L	0.100	100.88	66.12-135.60
Arsenic	0.100	mg/L	0.100	100.09	56.57-139.73
Barium	0.107	mg/L	0.100	106.84	62.57-137.75
Beryllium	0.106	mg/L	0.100	105.94	64.50-136.98
Cadmium	0.108	mg/L	0.100	107.84	66.74-135.14
Chromium	0.104	mg/L	0.100	103.77	65.66-136.16
Copper	0.108	mg/L	0.100	107.92	63.28-137.26
Lead	0.105	mg/L	0.100	104.90	60.18-137.28
Nickel	0.110	mg/L	0.100	109.85	58.15-138.43
Selenium	0.0960	mg/L	0.100	96.01	64.08-136.56
Silver	0.110	mg/L	0.100	109.79	62.33-136.79
Thallium	0.107	mg/L	0.100	107.24	61.75-137.41

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NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 06-1164
Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Quality Control Batch: 10070011 **Analyst:** EVB

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Zinc	0.111	mg/L	0.100	111.24	64.62-136.86

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Aluminum	0.0798	mg/L	0.0800	99.72	51.04-147.22	0.0200U
Antimony	0.105	mg/L	0.0800	127.90	51.44-152.18	0.00303
Arsenic	0.109	mg/L	0.0800	136.26	48.75-149.85	0.00100U
Barium	0.127	mg/L	0.0800	130.67	49.94-151.76	0.0228
Beryllium	0.115	mg/L	0.0800	143.25	49.65-154.29	0.00100U
Cadmium	0.114	mg/L	0.0800	142.48	52.36-151.66	0.00100U
Chromium	0.111	mg/L	0.0800	125.80	50.72-152.72	0.0108
Copper	0.205	mg/L	0.0800	104.14	49.71-151.17	0.122
Lead	0.111	mg/L	0.0800	128.50	51.28-146.92	0.00859
Nickel	0.110	mg/L	0.0800	129.21	49.80-147.48	0.00615
Selenium	0.152	mg/L	0.0800	190.21	49.75-151.93	0.00200U
Silver	0.0557	mg/L	0.0800	69.62	50.27-148.85	0.00100U
Thallium	0.116	mg/L	0.0800	144.81	51.28-148.96	0.00100U
Zinc	0.480	mg/L	0.0800	81.20	49.40-153.86	0.415

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Aluminum	0.0679	mg/L	0.0800	84.84	51.04-147.22	0.0200U	16.13	26.91
Antimony	0.0840	mg/L	0.0800	101.22	51.44-152.18	0.00303	22.54	26.19
Arsenic	0.109	mg/L	0.0800	136.76	48.75-149.85	0.00100U	0.37	24.47
Barium	0.123	mg/L	0.0800	125.66	49.94-151.76	0.0228	3.20	27.16
Beryllium	0.0968	mg/L	0.0800	121.04	49.65-154.29	0.00100U	16.81	26.51
Cadmium	0.0913	mg/L	0.0800	114.17	52.36-151.66	0.00100U	22.05	25.87
Chromium	0.100	mg/L	0.0800	111.92	50.72-152.72	0.0108	10.48	26.11
Copper	0.202	mg/L	0.0800	100.25	49.71-151.17	0.122	1.53	26.96
Lead	0.0910	mg/L	0.0800	102.98	51.28-146.92	0.00859	20.18	26.44
Nickel	0.0913	mg/L	0.0800	106.41	49.80-147.48	0.00615	18.17	24.79

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81 Water Managememt Dr.
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PO #: 06-1164
Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Quality Control Batch: 10070011 **Analyst:** EVB

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Selenium	0.119	mg/L	0.0800	148.41	49.75-151.93	0.00200U	24.69	26.79
Silver	0.0475	mg/L	0.0800	59.38	50.27-148.85	0.00100U	15.89	27.36
Thallium	0.0900	mg/L	0.0800	112.53	51.28-148.96	0.00100U	25.09	26.94
Zinc	0.489	mg/L	0.0800	92.07	49.40-153.86	0.415	1.80	26.25

Quality Control Batch: 10070030 **Analyst:** PCW

Blank	**Result**	**Units**
Turbidity	0.0100U	NTU

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Turbidity	3.98	NTU	4.00	99.50	74.60-126.92

Quality Control Batch: 10070050 **Analyst:** EVB

Blank	**Result**	**Units**
Mercury	0.000200U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Mercury	0.00493	mg/L	0.00500	98.68	49.47-142.41

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Mercury	0.00493	mg/L	0.00500	98.68	45.94-150.58	0.000200U

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Mercury	0.00493	mg/L	0.00500	98.68	45.94-150.58	0.000200U	0.00	21.63

Quality Control Batch: 10070097 **Analyst:** RMV

Blank	**Result**	**Units**
TDS	2.50U	mg/L

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Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Quality Control Batch: 10070097 **Analyst:** RMV

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
TDS	1500	mg/L	1500	99.87	51.54-143.34

Quality Control Batch: 10070136 **Analyst:** PCW

Blank	**Result**	**Units**
Odor (TON)	1.00U	TON

Quality Control Batch: 10070144 **Analyst:** YGS

Blank	**Result**	**Units**
Nitrate(as N)	0.0500U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Nitrate(as N)	0.738	mg/L	0.800	92.26	48.95-144.59

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Nitrate(as N)	0.454	mg/L	0.500	72.37	53.22-145.80	0.0923

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Nitrate(as N)	0.429	mg/L	0.500	67.36	53.22-145.80	0.0923	5.67	25.31

Quality Control Batch: 10070147 **Analyst:** YGS

Blank	**Result**	**Units**
Nitrite(as N)	0.0500U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Nitrite(as N)	0.767	mg/L	0.800	95.91	57.78-136.26

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Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**		
Nitrite(as N)	0.905	mg/L	1.00	83.28	46.72-146.56	0.0717		

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Nitrite(as N)	0.889	mg/L	1.00	81.76	46.72-146.56	0.0717	1.70	23.45

Quality Control Batch: 10070191 **Analyst:** TRB

Blank	**Result**	**Units**
Hydrogen Sulfide	0.00100U	mg/L

Quality Control Batch: 10070281 **Analyst:** PCW

Blank	**Result**	**Units**
Foaming Agents (MBAS)	0.200U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Foaming Agents (MBAS)	1.04	mg/L	1.00	103.90	62.17-137.11

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Foaming Agents (MBAS)	0.410	mg/L	0.500	71.28	50.51-145.19	0.0538

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Foaming Agents (MBAS)	0.413	mg/L	0.500	71.93	50.51-145.19	0.0538	0.79	30.01

Quality Control Batch: 10070445 **Analyst:** YGS

Blank	**Result**	**Units**
Chloride	0.400U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Chloride	1.74	mg/L	1.60	108.79	48.10-144.64

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Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**		
Chloride	12.9	mg/L	0.500	97.40	53.92-143.74	12.5		

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Chloride	12.6	mg/L	0.500	27.22	53.92-143.74	12.5	2.75	24.54

Quality Control Batch: 10070448 **Analyst:** YGS

Blank	**Result**	**Units**
Fluoride	0.200U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Fluoride	0.880	mg/L	0.800	109.94	53.24-140.18

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**		
Fluoride	1.27	mg/L	0.500	112.39	42.86-154.28	0.705		

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Fluoride	0.817	mg/L	0.500	22.28	42.86-154.28	0.705	43.24	24.49

Quality Control Batch: 10070449 **Analyst:** YGS

Blank	**Result**	**Units**
Sulfate	1.00U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Sulfate	4.35	mg/L	4.00	108.68	48.05-142.91

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**		
Sulfate	5.72	mg/L	2.50	135.73	46.14-150.78	2.32		

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Sulfate	4.74	mg/L	2.50	96.64	46.14-150.78	2.32	18.70	21.92

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Havana,FL 32333

PO #: 06-1164
Client Project #: n/a
Date Sampled: Aug 30, 2006
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Quality Control Batch: 10070562 **Analyst:** PCW

Blank	**Result**	**Units**
Cyanide	0.00500U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Cyanide	0.0874	mg/L	0.100	87.44	55.94-139.70

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Cyanide	0.171	mg/L	0.200	81.76	47.89-149.53	0.00700

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Cyanide	0.182	mg/L	0.200	87.54	47.89-149.53	0.00700	6.55	24.61

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PO #: 06-1164
Client Project #: n/a
Date Sampled: Aug 30, 2006
Sep 13, 2006; Invoice: 22990

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

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NWFWMD
81 Water Managememt Dr.
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PO #: 06-1164
Client Project #: Tates Hell
Date Sampled: Jun 28, 2006
Jul 25, 2006; Invoice: 18772

Report Summary

Date Received: Jun 29, 2006

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
18772DW1	TH3	EPA150.1	LCC	Main Lab	Drinking Water
		EPA180.1	PCW	Main Lab	
		EPA200.7	EVB	Main Lab	
		EPA200.8	EVB	Main Lab	
		EPA300.0	YGS	Main Lab	
		EPA376.1	TRB	Main Lab	
		SM2120B	PCW	Main Lab	
		SM2150B	PCW	Main Lab	
		SM2540C	RMV	Main Lab	
		SM4500-CN E	PCW	Main Lab	
		SM5540C	PCW	Main Lab	

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

ACCREDITED IN ACCORDANCE WITH nelac

Jefferson S. Flowers, Ph.D.
President/Technical Director

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PO #: 06-1164
Client Project #: Tates Hell
Date Sampled: Jun 28, 2006
Jul 25, 2006; Invoice: 18772

Analysis Report

Lab #: 18772DW1 **Sampled:** 06/28/06 10:00 AM **Desc:** TH3

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Lab pH (units)	7.38	pH	1.00	0.0100	0.0100	10065016	EPA150.1	39-38-4	06/29/06	01:30 PM
Turbidity	1.24	NTU	1.00	0.0100	0.0200	10065027	EPA180.1	G-019	06/30/06	09:30 AM
Aluminum	0.0200 U	mg/L	1.00	0.0200	0.0400	10065113	EPA200.8	7429-90-5	07/03/06	
Antimony	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-36-0	07/03/06	
Arsenic	0.00170 I	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-38-2	07/03/06	
Barium	0.0251	mg/L	1.00	0.00200	0.00400	10065113	EPA200.8	7440-39-3	07/03/06	
Beryllium	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-41-7	07/03/06	
Cadmium	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-43-9	07/03/06	
Chromium	0.0111	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-47-3	07/03/06	
Copper	0.00110 I	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-50-8	07/03/06	
Lead	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7439-92-1	07/03/06	
Nickel	0.00260 I	mg/L	1.00	0.00200	0.00400	10065113	EPA200.8	7440-02-0	07/03/06	
Selenium	0.0191	mg/L	1.00	0.00200	0.00400	10065113	EPA200.8	7782-49-2	07/03/06	
Silver	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-22-4	07/03/06	
Thallium	0.00100 U	mg/L	1.00	0.00100	0.00200	10065113	EPA200.8	7440-28-0	07/03/06	
Zinc	0.0100 U	mg/L	1.00	0.0100	0.0200	10065113	EPA200.8	7440-66-6	07/03/06	
TDS	490	mg/L	1.00	2.50	5.00	10065138	SM2540C	10-33-3	07/03/06	
Iron	0.0349	mg/L	1.00	0.0100	0.0200	10065245	EPA200.7	7439-89-6	07/03/06	
Manganese	0.0100 U	mg/L	1.00	0.0100	0.0200	10065245	EPA200.7	7439-96-5	07/03/06	
Sodium	12.8	mg/L	1.00	0.500	1.00	10065245	EPA200.7	7440-23-5	07/03/06	
Color	10.0	PCU	1.00	1.00	2.00	10065562	SM2120B		06/29/06	02:15 PM
Odor (TON)	2.00	TON	1.00	1.00	2.00	10065573	SM2150B		06/29/06	
Cyanide	0.00500 U	mg/L	1.00	0.00500	0.0100	10065612	SM4500-CN E	57-12-5	07/06/06	
Foaming Agents (MBAS)	0.200 U	mgLAS/L	1.00	0.200	0.400	10065637	SM5540C		06/29/06	08:00 AM
Hydrogen Sulfide	0.426	mg/L	1.00	0.00100	0.00200	10065732	EPA376.1	7783-06-4	07/03/06	
Nitrate(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10065912	EPA300.0	14797-55-8	06/29/06	03:00 PM

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NWFWMD
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PO #: 06-1164
Client Project #: Tates Hell
Date Sampled: Jun 28, 2006
Jul 25, 2006; Invoice: 18772

Lab #: 18772DW1 **Sampled:** 06/28/06 10:00 AM **Desc:** TH3

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed	
Nitrite(as N)	0.0500 U	mg/L	1.00	0.0500	0.100	10065913	EPA300.0	14797-65-0	06/29/06	03:00 PM
Chloride	22.0	mg/L	1.00	0.400	0.800	10065915	EPA300.0	16887-00-6	06/29/06	
Sulfate	65.8	mg/L	10.0	10.0	20.0	10066110	EPA300.0	14808-79-8	07/14/06	
Fluoride	0.455	mg/L	1.00	0.200	0.400	10066939	EPA300.0	16984-48-8	06/29/06	

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs FL 32715-0597 Phone 407 - 339 - 5984 Fax 407 - 260 - 6110 www.flowerslabs.com
8253 South U.S. Highway 1, Port St. Lucie FL 34952-2860 Phone 772 - 343 - 8006 Fax 772 - 343 - 8089
P.O. Box 1200, Madison FL 32341 Phone 407-973-6878 Fax 407-973-6878

NWFWMD
81 Water Managememt Dr.
Havana,FL 32333

PO #: 06-1164
Client Project #: Tates Hell
Date Sampled: Jun 28, 2006
Jul 25, 2006; Invoice: 18772

Quality Report

Quality Control Batch: 10065027 **Analyst:** PCW

Blank	**Result**	**Units**
Turbidity	0.0100U	NTU

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Turbidity	4.08	NTU	4.00	102.00	51.12-132.72

Quality Control Batch: 10066939 **Analyst:** YGS

Blank	**Result**	**Units**
Fluoride	0.200U	mg/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Fluoride	0.731	mg/L	0.800	91.36	53.24-140.18

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**

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Quality Control Batch: 10066939 **Analyst:** YGS

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**
Fluoride	0.477	mg/L	0.500	86.64	42.86-154.28	0.0434

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Fluoride	0.415	mg/L	0.500	74.25	42.86-154.28	0.0434	13.91	24.49

FLOWERS CHEMICAL LABORATORIES INC.
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P.O. Box 1200, Madison FL 32341 Phone 407-973-6878 Fax 407-973-6878

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Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

City of Tallahassee Code of Ordinances (water)

Water Rates and Connection Fees:

The following is an excerpt from the City of Tallahassee Code of Ordinances regarding water rates:

Sec. 21-281. Rate schedule.

(a) *Availability*. This section is applicable to all water service within the territory served by the city.

(b) *Monthly rate.*

TABLE INSET:

	Effective through 9/30/2006	Effective after 10/1/2006
Customer charge	$5.10	$5.41
Usage charge per 1,000 gallons per month	1.22	1.29
Minimum monthly charge	8.15	8.64

Effective October 1, 2008, and annually on the same date thereafter, such monthly rates shall be increased by the same percentage as the percentage increase in the Consumer Price Index - All Urban Consumers (CPI-U): All city average, unadjusted, as published by the U.S. Department of Labor, during the most recent 12-month period for which said index is available on such effective date.

(c) *Monthly minimum charge.* No monthly bill, regardless of usage, shall be for less than the following amounts according to the size of the meter through which service is furnished:

Nominal Meter Size (inches)	Monthly Minimum Charge	
	Effective through 9/30/2006	Effective after 10/1/2006
5/8	$ 8.15	$ 8.64
1	20.38	21.54
1 1/2	40.75	43.08

2	65.20	69.01
3	130.40	137.89
4	203.75	215.42
6	407.50	430.85
8	652.00	689.37

(d) *Hydrant meter service.* Customers requesting the establishment of hydrant meter service at a new location or the relocation of an existing hydrant meter shall pay for all metered water usage at the applicable rate and shall pay an additional fee to establish the hydrant meter or to relocate the hydrant meter as requested by the customer.

TABLE INSET:

Fee to establish or relocate hydrant meters	$100.00

(Code 1957, § 34-17; Code 1984, § 25-46; Ord. No. 82-O-1985, § 1, 4-27-1982; Ord. No. 84-O-2305AA, § 1, 6-26-1984; Ord. No. 86-O-2587, § 4, 4-9-1986; Ord. No. 89-O-0017AA, § 2, 6-7-1989; Ord. No. 90-O-0079, § 1, 8-22-1990; Ord. No. 91-O-0015AA, § 2, 5-8-1991; Ord. No. 93-O-0012AA, § 2, 5-12-1993; Ord. No. 06-O-09, § 7, 3-29-2006)

Sec. 21-282. Service and tapping fees.

(a) No water tap will be made in the city on any street in the city not already having a main adjacent to the property where service is desired. The city shall make or permit water taps upon payment, in advance, of the following:

TABLE INSET:

5/8 " tap.....	$ 650.00
1 " tap.....	1,340.00
1 1/2 " tap.....	1,600.00
2 " tap.....	1,700.00
3 " tap and greater.....	Actual cost (as determined by the city manager or his designee)

All fireline taps, sizes ranging from one inch to 12 inches, will be charged at actual cost, as determined by the city manager or his designee.

Fire hydrants on existing main:	
Set during construction.....	Actual cost (as determined by the city manager or his designee)
Set after construction.....	Actual cost (as determined by the city manager or his designee)
3/4 " tap (developer-installed manifold system for multifamily units).....	$ 150.00
1 " tap (developer-installed manifold system for multifamily units).....	209.00

(b) Fire hydrants will be set behind the curb or at the top of the back slope on open ditch sections closest to the existing water main. Hydrants placed on public right-of-way or in utility easements will remain the property of the city. The city will not set public fire hydrants on water lines which have not been accepted by the city for operation and maintenance.

(c) Upon payment of applicable fees, the city will extend mains across roadways to provide potable water and/or public fire protection; provided, however, that in cases of fire lines provided exclusively for the benefit of a single customer, the city, upon payment of applicable fees, will provide a tap at the main, and the customer will be responsible for extension of the fire lines across the roadway.

(d) In the case of acquisition of any water system, water tap fees shall be subject to negotiation between the city and the seller. Acquisition of such systems shall be subject to approval by the city commission.

Wastewater Rates and Connection Fees:

The following is an excerpt from the City of Tallahassee, Code of Ordinances regarding wastewater rates:

Sec. 21-401. Purpose.
The rates and charges set forth in section 21-402 are hereby imposed to provide adequate revenue to pay for the cost of the construction, operation and maintenance of the sanitary sewerage system and for the payment of the principal and interest of outstanding sewerage bonds issued by the city.
(Code 1957, § 34-24; Code 1984, § 25-71)

Sec. 21-402. Rate schedule.

(a) *Availability*. This section shall be applicable to all sewer service within the territory served by the city, except that the city may at its option refuse to accept sewage into its system having unusual, dangerous or difficult-to-treat characteristics, as determined by

the city, including but not limited to the following: volatile or explosive materials; radioactive isotopes; toxic substances or other compounds in sufficient quantities to create hazards in the sewage system or receiving waters, or adversely affect the treatment process; any liquids with extremely low or high pH; or high-temperature liquids or gases.

	Monthly Rate Effective on Bills Rendered On or After			
Meter Size (inches)	10/1/ 1994	4/1/ 2006	10/1/ 2006	10/1/ 2007
5/8	$ 8.40	$ 8.75	$ 9.67	$ 10.85
1	21.00	21.87	24.17	27.12
1 1/2	42.00	43.74	48.33	54.23
2	67.20	69.98	77.33	86.77
3	134.40	139.96	154.67	173.54
4	210.00	218.69	241.67	271.15
6	420.00	437.39	483.34	542.30
8	672.00	699.82	773.34	867.69

Effective October 1, 2008, and annually on the same date thereafter, such monthly rates shall be increased by the same percentage as the percentage increase in the Consumer Price Index - All Urban Consumers (CPI-U): All city average, unadjusted, as published by the U.S. Department of Labor, during the most recent 12-month period for which said index is available on such effective date.
No monthly bill, regardless of usage, shall be for less than the readiness-to-serve charge according to the size of water meter for that account, plus usage charge, if any.

(c) *Usage*. All sewer service will be charged on the basis of monthly metered water usage for each account at the following rates:

	Monthly Rate Effective on Bills Rendered On or After			
	10/1/ 1994	4/1/ 2006	10/1/ 2006	10/1/ 2007
Charge per 1,000 gallons of monthly metered water usage	$2.68	$2.79	$3.08	$3.46

When water service is not provided by the city, the city shall require that a city-approved water meter be installed at the customer's expense on this service to determine the

volume of water actually used at each account location. The city shall at all times have access to such meters for the purpose of inspecting, testing, repairing, replacing or reading such meters. Any facility using the city sewer system where the metered determination temporarily cannot be made shall be charged an estimated amount of use to be determined by the director of water and sewer or other authorized representative of the city.

(d) *Maximum charge residential.* The maximum monthly sewer charge for residential customers shall not exceed an amount computed on the basis of the second highest peak metered water consumption billed during the four previous winter months of December, January, February and March, plus the readiness-to-serve charge for the water meter currently in use, provided that in the event of an inoperative meter, a maximum charge may be established by the director of water and sewer or other authorized representative of the city. In the event of new accounts being established subsequent to the period necessary to determine on an actual basis the maximum charge, and where no previous billing history is available, the figure of 8,000 gallons per month shall be used, plus the readiness-to-serve charge for the water meter currently in use.

(e) *Maximum separate meter charge.* Sewage disposal service charges are based on quantity of sewage discharged to the city sewer system. If all water entering an establishment will not be discharged to the city sewer system, a separate city-approved water meter may be installed on the water line or lines supplying water which discharges to the sewer. Such meters shall be installed at the expense of the user, and the city shall at all times have access to such meters for the purpose of inspecting, testing, repairing, replacing or reading suchmeter. Where no provision is made to meter the water which is discharged to the sewer, sewer charges shall be based on that total metered water use at the account location.

(f) *Tax adjustments.* Tax adjustments shall be the same as residential electric (see section 21-226).

(g) *Surcharge for strong wastes.* To the rates and charges in this section there shall be added a surcharge of 0.071 percent of the usage rate for each part per million (ppm) of suspended solids in excess of 300 ppm, and 0.080 percent of the usage rate for each ppm of five-day, 20 degrees Celsius, biochemical oxygen demand (BOD) in excess of 250 ppm, all as determined by the city from samples and tests made of the customer's sewage. In the event that analysis indicates inhibition of the biochemical oxygen demand test, a surcharge of 0.042percent of the usage rate for each ppm chemical oxygen demand (COD) in excess of 480 ppm shall be substituted for the biochemical oxygen demand surcharge. The city may require customers discharging such strong wastes into the system to construct control manholes to facilitate observation and sampling. Customers discharging in excess of two percent of the city's daily sewage flow may be required to construct special holding tanks so as to release quantity at an even rate over a 24-hour period.

(h) *Digester fees.* The city shall charge a fee of $0.07 per gallon for all sewage or other acceptable waste stream, including grease and septage, that is delivered and accepted by the city to its designated treatment facilities for treatment and disposal. The city may at its option refuse to accept sewage into its system having unusual, dangerous, or difficult-to-treat characteristics, as determined by the city, including but not limited to: volatile or explosive materials; radioactive isotopes; toxic substances, or other compounds in sufficient quantities to create hazards in the sewage system or receiving waters, or adversely affect the treatment process; any liquids extremely low or high pH; or high-temperature liquids or gases.
(Code 1957, § 34-22; Code 1984, § 25-72; Ord. No. 78-O-1657, § 1, 10-24-1978; Ord. No. 79-O-1688, § 1, 5-22-1979; Ord. No. 82-O-2040AA, § 1, 10-26-1982; Ord. No. 84-O-2306AA, § 1, 6-26-1984; Ord. No. 86-O-2597AA, § 1, 6-11-1986; Ord. No. 89-O-0018AA, § 1, 6-7-1989; Ord. No. 91-O-0016, § 1, 5-8-1991; Ord. No. 93-O-0013AA, § 1, 5-12-1993; Ord. No. 95-O-0016, § 1, 5-10-1995; Ord. No. 06-O-09, § 11, 3-29-2006)

Sec. 21-403. Tap and tap location fees.

(a) Sewer taps shall be made by the city upon the payment, in advance, of the actual costs of such taps, as determined by the city manager or his designee.

(b) Tap fees shall be waived where taps are installed by a developer. In the case of acquisition of any sewer system, which acquisition is subject to approval by the city commission, sewer tap fees shall be subject to negotiation between the city and the seller.

(c) The city will locate an existing tap for a fee of $275.00, which fee shall be paid in advance of the city's providing such services.

FRANKLIN COUNTY, FLORIDA
EXAMPLE DEVELOPMENT AGREEMENT

Comment [RXLB1]:

THIS DEVELOPMENT AGREEMENT (hereinafter "Agreement") made and entered into this _____ _day of 2008, by and between FRANKLIN COUNTY, FLORIDA, a County Entity, (hereinafter "County") and
_____
(hereinafter "Developer").

WITNESSED:

WHEREAS, _____, intends to develop property within Franklin County, Florida utility service boundary and intends to connect this development to County Utilities, specifically for potable water, fire protection and wastewater service; and

WHEREAS, the County must facilitate capital improvements in the form of water production and wastewater treatment improvements in the vicinity of the proposed development to ensure compliance with the Florida Department of Environmental Regulations rules and requirements for the proposed development; and

WHEREAS, _____, has presented a general Development Plan to Franklin County, attached as Exhibit A, which indicates the potable water, fire flow and wastewater demands ; and

WHEREAS, the County, in the interest of maintaining the public health, safety and welfare, desires to assure that such project is developed substantially in accordance with the Development Plan and therefore considers this Agreement to be in the best interests of the County; and

WHEREAS, _____, is willing to commit itself to the development of a project substantially in accordance with the Development Plan and desires to have a reasonable amount of flexibility to carry out the development and therefore considers this Agreement to be in its best interests; and

WHEREAS, the County and _____, desire to set forth in this Agreement their respective understandings and agreements with regard to utility services;

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the parties agree as follows:

I. Definitions

For the purposes of this Agreement the following words and phrases shall have the following meanings:

The "cost" or "entire cost" of a site improvement shall be deemed to include all construction costs, engineering fees, attorneys' fees, testing expenses, publication costs, financing costs, and miscellaneous costs.

II. Development Plan

It is intended that a Development Plan be provided with a general overview of the development needs as it relates to water, fire and wastewater service for the purpose of sizing all necessary utilities.

III. Improvements

The parties agree that the entire cost of all public improvements shall be defrayed as follows:
[ ]

County hereby acknowledges that with completion of this agreement and the associated Capital Improvements, it has given _____, the right to connect to the County water and wastewater system on the property, subject to obtaining proper permits and paying applicable fees.

IV. Installation of Improvements

The County agrees to commence in a timely and orderly manner with installation of the off site Capital Improvements necessary to serve the Development. The installation of such improvements may occur concurrently with private improvements, but shall be completed prior to an occupancy certificate being issued for the project. The Developer is responsible for all onsite improvements, the ownership of which shall be transferred to the County, at no cost, upon acceptance by the County. Acceptance by the County shall be made at the County's sole discretion and shall, at minimum, be conditioned upon receipt by the County of warranties and proof of compliance with Department of Environmental Protection requirements.

The utility improvement plans and all appurtenances shall be prepared by an approved licensed professional engineer in coordination with the County Public Works Director. Plans and specifications shall comply with the FDEP requirements.

V. Payment for Improvements

_____ shall guarantee annual payments on a loan issued by DEP to Franklin County in the amount of _____ dollars to finance the applicable off-site utility improvements associated with the proposed development. The County shall collect and account for water and wastewater connection impact fees throughout each calendar year. The difference between what has been collected and the annual payment amount will be rectified by billing _____. For each year that _____ is called upon to meet the payment deficit, the deficit amount will be divided by that current year's impact fee amount as advertised by the County. The quotient will represent the number of connections _____ has purchased in that year. _____ agrees to submit a bond sufficient to cover the terms and conditions of this Agreement prior to or at the time this Agreement is presented to the Board of County Commission for approval. Such bond shall be approved by the County Attorney.

VI. Miscellaneous Provisions

A. The County Manager of Franklin County shall have the authority to administer this Agreement on behalf of the County and to exercise discretion with respect to those matters contained herein so long as the Development proceeds in general accord with the Development Plan and with regard to those matters not fully determined at the date of this Agreement. The provisions of this Agreement shall run with the land in favor of and for the benefit of the County and shall be binding upon present and all successor owners of the real estate described in the attached Exhibit "B".

B. Nondiscrimination. _____ shall not, in the performance of this contract, discriminate or permit discrimination in violation of federal or state laws or local ordinances because of race, color, sex, age, political or religious opinions, affiliations, or national origin.

C. Applicable Law. Parties to this contract shall conform to all existing and applicable County ordinances, resolutions, state and federal laws, and all existing and applicable rules and regulations. Florida law will govern the terms and the performance under this contract.

IN WITNESS WHEREOF, the undersigned have executed this Agreement on or before the day and year first above written.

DEVELOPER

By _____ (Type Name)_____

Title _____ Date _____
(Note: All Owners' signatures must be notarized)

FRANKLIN COUNTY, FLORIDA

By _____
County Manager

Attest:

By _____
County Clerk

Approved as to form:

By _____
County Attorney

Exhibit A

DEVELOPMENT PLAN
WATER SERVICE (POTABLE AND FIRE) SUMMARY

LOT #	SITE AREA	MINIMUM FLOOR AREA	WATER SERVICE NEEDED

Instructions:

LOT #. - Each lot in the development must be listed in this column

SITE AREA - The total area of each lot in square feet

FLOOR AREA. - SF of Floor area

Volume of potable water needed over a 20 year period _____

Volume of fire flow needed over a 20 year period_____

Exhibit B [Real Estate and Easements Identified]

Project Tracking Number _____

CBIR Request Form

1. Project Title:_____ Date:_____

2. Member Sponsor(s) Name:_____
District No.(s): _____

3. What statewide interest does this project address as it relates to Chapter 216.052(1)?

_____

4. Requester:

Name: _____
Organization : _____

5. Recipient:

Name:_____ Street: _____

City:_____ Zip Code: _____

Counties:_____

Gov't Entity ☐ or Private Organization (Profit/Not for Profit) ☐

6. Contact:
Name:_____Phone #: _____e-mail: _____

7. Project Description: (Include services to be provided)_____

_____

8. Is this project related to a federal or state declared disaster? Yes ☐ No ☐

8a. If yes, which declared disaster?

_____

8b. If yes, what year?: _____

9. Measurable Outcome Anticipated :

_____

10. Amount you are requesting from the State for this project this year? $
Requested:

11. Total cost of project this year: $

12. Is this request being made to fund (check all that apply): Operations ☐
Construction ☐

13. What type of match exists for this request? Local ☐ Private ☐ Federal ☐
None ☐

13a. Enter all amounts that apply: Total ($ Total $
Amount

14. Was this project previously funded by the State? Yes ☐ No ☐

14a. If yes, most recent Fiscal Year _____(eg. 2002-2003)
Amount: $

15. Is future-year funding likely to be requested? Yes ☐ No ☐

15a. If yes, how much? $

15b. Purpose for future year funding: Recurring Operations ☐ Non-Recurring Construction ☐ Other _____

16. Will this be an annual request? Yes ☐ No ☐

17. Was this project included in an Agency Budget Request? Yes ☐ No ☐

17a. If yes, name the Agency:_____

18. Was this project included in the Governor's Recommended Budget? Yes ☐ No ☐ Unknown ☐

19. Is there documented need for this project? Yes ☐ No ☐

19a. If yes, what is the documentation? (eg: LRPP, Agency Needs Assessment, etc.)

_____

20. Was this project request heard before a publicly-noticed meeting of a body of elected officials (municipal, county, or state)? Yes ☐ No ☐

20a. If yes, name the body: _____

21. Is this a water project under s. 403.885, F.S.? Yes ☐ No ☐
(See http://www.dep.state.fl.us/water/waterprojectfunding/2007/wpf_2007_main.htm for more information including historical funding)

If Yes, please complete the next page

IMPORTANT: ATTACH APPROPRIATE SUPPORTING DOCUMENTATION FOR THIS CBIRS REQUEST

21a. Is the project eligible under section 403.885(2), F. S., to protect public health or the environment; and implement plans developed pursuant to the Surface Water Improvement and Management Act created in part IV of Chapter 373, F.S., other water restoration plans required by law, management plans prepared pursuant to s. 403.067, F.S., or other plans adopted by local government for water quality improvement and water restoration? Yes ☐ No ☐

22. Is your project addressed in a state, regional or local plan (such as a SWIM Plan, Comprehensive Plan, Local Master Plan, etc.)? Yes ☐ No ☐

22a. If yes, name the plan and cite the pages on which the project is described

_____

23. Are you requesting funding for a stormwater, surface water restoration, or other water management project? Yes ☐ No ☐

If yes, answer the following:

23a. In which Water Management Districts area is your project located?_____

23b. Have you provided at least a 50% match (that is, one-half the total project cost identified in this request)? Yes ☐ No ☐

23c. If yes, identify the amount and source of any match being provided: Amount $_____ Source:_____

23d. Will this project reduce pollutant loadings to a water management district designated "priority" surface water body? Yes ☐ No ☐
(See www.dep.state.fl.us/water/waterprojectfunding/WMDprioritywaters.htm for list of priority water bodies.)

23e. If yes, name the water body:

_____

23f. If yes, describe, specifically, how it will reduce loadings, identify anticipated load reductions for total suspended solids, total nitrogen, total phosphorus, and other contaminants, and specify the practices that will be used to reduce loadings:

_____

23g. Is the project under construction? Yes ☐ No ☐

24. Are you requesting funding for a wastewater project? Yes ☐ No ☐

If yes, answer the following:

24a. Does your project qualify for funding from DEP's "Small Community Wastewater Treatment Grant Program" under section 403.1838, F.S.?

Yes ☐ No ☐ (See www.dep.state.fl.us/water/wff/cwsrf/smalcwgp.htm for information)

24b. If yes, have you received or applied for funding? Yes ☐ No ☐

24c. If yes, provide the DEP Disadvantaged Small Community Grant project number

_____

24d. Have you received or applied for funding for this project from DEP's State Revolving Fund (SRF) program under section 403.1835, F.S.?

Yes ☐ No ☐ (See www.dep.state.fl.us/water/wff/cwsrf/index.htm for information)

24e. If yes, provide the DEP SRF project number

_____

24f. Is the project under construction? Yes ☐ No ☐

24g. Have you provided at least a 25% match (that is, one-quarter the total project cost identified in this request)? Yes ☐ No ☐

24h. If yes, identify the amount and source of the match: Amount

$_____ Source: _____

25. Are you requesting funding for a drinking water project? Yes ☐ No ☐

If yes, answer the following:

25a. Have you received or applied for funding for this project from DEP's State Revolving Fund (SRF) program under section 403.8532, F.S. Yes ☐ No ☐ (See www.dep.state.fl.us/water/wff/dwsrf/index.htm for information)

25b. If yes, provide the DEP SRF project number

_____

25c. Is the project under construction? Yes ☐ No ☐

25d. Have you provided a match? Yes ☐ No ☐

25e. If yes, identify the amount and source of the match: Amount

$_____ Source: _____

Version 39 10/11/06

JOINT SERVICE AREA AGREEMENT

THIS AGREEMENT (hereinafter "Agreement") is made and entered into this _____ day of _____, 200___, by and between FRANKLIN COUNTY, a political subdivision of the State of Florida ("County"), the CITY OF CARRABELLE and CITY OF APALACHICOLA, (collectively, the “Cities”), EASTPONT WATER AND SEWER DISTRICT and the ALLIGATOR POINT WATER DISTRICT, (collectively, the “Districts”).

WHEREAS, the Cities and Districts provide water service and/or wastewater service in both the incorporated and unincorporated areas of the County, as identified in Appendix A and Appendix B for water and wastewater services, respectively, attached hereto; and

WHEREAS, vast areas of the unincorporated portions of the County receive no central water or wastewater service; and

WHEREAS, the County, Cities and Districts recognize the significant benefits to the to all County residents and businesses if a coordinated and comprehensive plan for the construction of central water and wastewater facilities is entered between and among the County, Cities and Districts; and

WHEREAS, these benefits include, but are not limited to, the protection of water resources, the protection of the County’s invaluable natural resources and environment, the efficient and economical provision of critical services at the most reasonable rates possible and the resulting reasonableness of rates for their water and wastewater service; and

WHEREAS, the County, Cities and Districts recognize that by entering this Agreement they will be eliminating the costly and inefficient duplication of investments in utility facilities and minimizing the potential for territory disputes between and among them;

NOW, THEREFORE, in consideration of the foregoing and the mutual promises set forth below, the parties, intending to be legally bound, agree as follows:

SECTION 1. RECITALS. The recitals set forth above are true and accurate and are adopted and incorporated herein.

SECTION 2. APPENDICES. The following Appendices are attached hereto and incorporated herein by reference.

Appendix A - Water Service Map

Appendix B - Wastewater Service Map

Appendix C - City of Carrabelle Service Area Map and Legal Description

Appendix D - City of Apalachicola Service Area Map and Legal Description

Appendix E - Eastpoint Water and Sewer District Service Area Map and Legal Description

Appendix F - Alligator Point Water District Service Area Map and Legal Description

SECTION 3. PROVISION OF WATER AND WASTEWATER SERVICES.

(A) The parties agree that the Cities shall have the exclusive right to provide water and wastewater services within the service areas identified in the Appendices.

(B) The parties acknowledge and agree that the identification of exclusive service areas fosters the opportunity for the best and most economical long-term capital improvement planning for each party, but collectively will result in the most economical long-term planning for utility service county-wide. The parties further acknowledge and agree that with the privilege of obtaining an exclusive service area boundary comes the obligation to provide, or make prudent plans for the provision of, central water and wastewater service in such service areas.

(C) By executing this Agreement, each party agrees that it shall create long-term capital improvement plans for the periods of five, ten and twenty years. Such plans shall consider, to the maximum extent possible, the comprehensive, coordinated and cooperative long-term plan established by the County with the cooperation of the Cities and Districts.

(D) The parties agree that they will abide by the notification and cooperation procedures set forth in Section 4 of this Agreement, particularly where access to another party's existing utility facilities could render the provision of central water and/or wastewater service within a party's service area more timely, more economical and feasible.

(E) When interconnections of facilities between the parties or the creation of regional facilities appear feasible and practical, the parties agree to communicate and cooperate with each other in the development of plans sufficient to comply with the water/wastewater concurrency requirements for their respective comprehensive plans.

SECTION 4. COOPERATION AND COORDINATION. In recognition of the parties' desire to achieve safe, sufficient and efficient water and wastewater service for all County residents and businesses, and in recognition of the parties' agreement to recognize and honor exclusive service areas, the parties acknowledge and agree that it is in the best interest of the County, Cities, and Districts that all opportunities for cooperation and coordination of the construction of utility facilities be explored. By this Agreement, before any party embarks on the design and permitting of new construction, expansion or replacement of a water treatment plant or wellfield or wastewater treatment plant or disposal facilities, such party shall notify the other parties of the intent to construct, expand or replace such facilities. Upon receipt of such notification, each party may choose to determine the cost and feasibility of interconnecting their facility with the notifying utility's facilities or the cost and feasibility of joining with the notifying utility in the planning and construction of regional facilities. The parties receiving

such notice shall have thirty (30) days to respond to the notifying utility of such costs and feasibility determinations. The notifying utility shall, at minimum, provide the responding parties with the opportunity to submit a competitive bid for supplying the required regional service through an interconnection (wholesale service) or a joint project. The parties then shall use their best efforts to facilitate a wholesale service relationship or joint ownership relationship if such relationship will result in the most cost-efficient means of providing safe and sufficient utility service to County residents and businesses. Although nothing in this agreement shall be interpreted as a requirement that any party connect with another.

SECTION 5. CONNECTIONS. The County, Cities and Districts agree that it is in the best interests of the residents and businesses of the County if property which is developed or improved following the execution of this Agreement would be required to connect to a central water, wastewater or reclaimed water system. However, the parties recognize that this result is not practical or economically feasible at this time. It is the intent of the parties through this Agreement to establish central water and wastewater service when feasible, cost-effective and advantageous to the public health and welfare, including, utilizing advanced treatment processes such that wastewater effluent can be reclaimed and reused to the maximum extent possible.

SECTION 6. EASEMENTS. The County, Cities and Districts will cooperate in the acquisition of necessary easements for the provision of water, wastewater and reclaimed water facilities when such easements lie in the exclusive service area of one party but are required by another party either to provide service to areas within its own exclusive service areas or in order to provide wholesale service. Each party shall notify the other of efforts to obtain easements within their respective service areas. The parties agree to cooperate in obtaining sufficient easements for the placement of water, wastewater and reclaimed water lines and associates facilities.

SECTION 7. DELETION OF PORTIONS OF SERVICE AREA. If a party to this Agreement fails to provide service within the exclusive service area provided herein to an applicant for such service, either directly or by establishing a wholesale relationship or regional project with another party or parties to this Agreement, or if service can be accomplished only at an unreasonable cost, then the parties agree that such portion of the exclusive service area shall be deleted. The parties further agree that no compensation shall be due to any party if a portion of its exclusive service area is deleted.

SECTION 8. NOTICE. Any notice or document required to be delivered under this Agreement shall be in writing and shall be deemed delivered at the earlier of (i) the date received, or (ii) five (5) business days after the date deposited in a United States Postal Service depository, postage prepaid, registered or certified mail, addressed to the addresses set forth below:

AS TO FRANKLIN COUNTY:

*

AS TO CITY OF APALACHICOLA:

*

AS TO CITY OF CARRABELLE:

*

AS TO THE EASTPOINT WATER AND SEWER DISTRICTS:

*

AS TO THE ALLIGATOR POINT WATER DISTRICT:

*

SECTION 9. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement between the parties pertaining to the coordinated and cooperative county-wide approach to the provision of utility services and the identification of exclusive water and wastewater service areas, and supersedes all prior oral or written agreements pertaining to the same. No amendment or modification of this Agreement shall be effective unless set forth in writing and executed by both parties.

SECTION 10. GOVERNING LAW. The validity, construction, and performance of this Agreement shall be governed by the laws of the State of Florida.

SECTION 11. COUNTERPARTS. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

SECTION 12. CONSTRUCTION. The parties acknowledge and agree that this Agreement has been drafted jointly by the parties and that no uncertainty or ambiguity as to the proper application or interpretation of the Agreement or any term herein is to be construed against any party as the drafter of the Agreement.

SECTION 13. VENUE. Venue for any action arising out of this Agreement shall be in FRANKLIN County, Florida.

SECTION 14. SUCCESSION. All rights and obligations of the parties to this Agreement shall be binding upon and shall inure to the parties' successors and assigns.

SECTION 15. TERMINATION. This Agreement may only be terminated by the written consent of all parties.

SECTION 16. EFFECTIVE DATE. This Agreement shall be effective on the date it is executed by each party identified herein.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first above written.

Witnessed and approved as to Form:

FRANKLIN COUNTY BOARD OF COUNTY COMMISSIONERS

_____
Attorney For FRANKLIN County

By:_____

Title: Chair

ATTEST:

_____
Clerk of FRANKLIN County

STATE OF FLORIDA
COUNTY OF FRANKLIN

The foregoing instrument was acknowledged before me this ____ day of _____, 200____ by _____ as Chair of the FRANKLIN County Board of County Commissioners. He is personally known to me or has produced _____ as identification.

_____
Signature of person taking acknowledgment

_____
Name of acknowledger typed, printed or stamped

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first above written.

Witnessed and approved as to form: **CITY OF APALACHICOLA**

_____
Attorney for City of Apalachicola

By:_____

Title: Mayor

ATTEST:

_____
City Clerk

STATE OF FLORIDA
COUNTY OF FRANKLIN

The foregoing instrument was acknowledged before me this ____ day of _____, 200____ by Mayor of the City of Apalachicola. He/she is personally known to me or has produced _____ as identification.

_____
Signature of person taking acknowledgment

_____
Name of acknowledger typed, printed or stamped

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first above written.

Witnessed and approved as to form: **CITY OF CARRABELLE**

_____ By:_____

Attorney for City of Carrabelle

Title: Mayor

ATTEST:

_____

City Clerk

STATE OF FLORIDA
COUNTY OF FRANKLIN

The foregoing instrument was acknowledged before me this ____ day of _____, 200____ by Mayor of the City of Carrabelle. He/she is personally known to me or has produced _____ as identification.

_____

Signature of person taking acknowledgment

_____

Name of acknowledger typed, printed or stamped

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first above written.

Witnessed and approved as to form:

EASTPOINT WATER AND SEWER DISTRICT

_____
Attorney for the District

By:_____

Title:

ATTEST:

_____
District Secretary

STATE OF FLORIDA
COUNTY OF FRANKLIN

The foregoing instrument was acknowledged before me this ____ day of _____, 200____ by _____, Director. He/she is personally known to me or has produced _____ as identification.

_____
Signature of person taking acknowledgment

_____
Name of acknowledger typed, printed or stamped

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first above written.

Witnessed and approved as to form: **ALLIGATOR POINT WATER DISTRICT**

_____ By:_____

Attorney for the District

Title:

ATTEST:

_____

Secretary

STATE OF FLORIDA
COUNTY OF FRANKLIN

The foregoing instrument was acknowledged before me this ____ day of _____, 200____ by _____, Director. He/she is personally known to me or has produced _____ as identification.

_____

Signature of person taking acknowledgment

_____

Name of acknowledger typed, printed or stamped

INTERLOCAL AGREEMENT RELATING TO ESTABLISHMENT OF THE ____ REGIONAL UTILITY AUTHORITY

THIS AGREEMENT, dated as of _____, 2007 (the "Interlocal Agreement"), entered into between the local governmental units executing this Interlocal Agreement, constituting a county and municipal corporations located in the State of Florida, which shall on the date hereof be Franklin County, Florida (the "County"), the City of _____, Florida and the City of ____ (individually referred to as "City" and collectively as "Cities") (collectively, the County and Cities shall be referred to hereafter as the "Authority Members"), as evidenced by the signatures of their authorized representatives;

WITNESSETH:

WHEREAS, each of the Authority Members have the power to acquire, own, improve, operate and maintain water and wastewater utility facilities pursuant to their Florida Constitutional powers of local self government, section 125.01, Florida Statutes (in case of counties), or section 166.021, Florida Statues (in the case of municipal corporations); and **WHEREAS,** Part I of Chapter 163, Florida Statutes (the "Interlocal Act"), permits the Authority Members to enter into interlocal agreements with each other to jointly exercise any power, privilege or authority which such Authority Members share in common and which each might exercise separately, permitting the Authority Members to make the most efficient use of their powers by enabling them to cooperate on the basis of mutual benefit and thereby provide services and facilities in a manner and pursuant to forms of governmental organization that will best serve

geographic, economic, population and other factors influencing the needs and development of such Authority Members; and

WHEREAS, section 163.01(7)(g), Florida Statutes, authorizes the Authority Members pursuant to an interlocal agreement to create a separate legal entity to exercise the common power of the Authority Members to acquire, own, improve, operate and maintain water and wastewater utility facilities; and

WHEREAS, the Authority Members have determined that it is in their best interests to create such a legal entity to acquire, own, improve, operate and maintain certain water and wastewater facilities, initially consisting of certain utility facilities owned or controlled by each Authority Member, for the following reasons:

(1) Each Authority Member must meet the comprehensive planning requirements of Chapter 163, Florida Statutes, which mandate that Florida local governments, including the Authority Members, coordinate their plans for future growth with available sources of funding and the availability of infrastructure over a minimum ten (10) year horizon. The provision of water and wastewater utilities is a major factor in such infrastructure coordination. The consolidation of public ownership of water and wastewater supply, treatment and disposal facilities is more desirable and more readily allows for Florida local governments to meet their statutory mandate with respect to the utilities element of their respective comprehensive plans.

(2) The establishment of such legal entity, in the form of the Authority, will ensure that water and wastewater services are provided in the best, most cost effective manner possible and will ensure that proper future expansion of water and wastewater

facilities will occur to meet the demands of development of affected local governments; and

WHEREAS, the County and Cities have confirmed the feasibility and advantages of creating a regional utility authority, consisting of the County and Cities as its members, which would assume all obligations to provide water supply, treatment, transmission and distribution services and wastewater collection, treatment and disposal services (hereafter referred to as "Utility Services") on behalf of the County and Cities in designated portions of the unincorporated County.

NOW, THEREFORE, in consideration of the foregoing and the covenants herein, it is mutually agreed and understood by and among the Authority Members, that now or may hereafter execute this Interlocal Agreement, that the "_____ Regional Utility Authority," a legal entity and public body and a unit of local government with all of the privileges, benefits, powers and terms of the hereinafter defined Act and this Interlocal Agreement, is hereby created for the purposes described herein, as follows:

ARTICLE I

DEFINITIONS AND CONSTRUCTION

SECTION 1.01. DEFINITIONS. The following definitions shall govern the interpretation of this Interlocal Agreement:

"Acquisition Cost" the sum of (1) the County Debt Defeasance Amount, (2) the City Debt Defeasance Amount and (3) the Transaction Cost.

"Acquisition Debt Obligations" means any series of bonds, notes or other evidence of indebtedness, including state revolving loan fund documents, issued or incurred by the Authority to provide funding for the Acquisition Cost.

"Act" shall mean, collectively, section 125.01, Florida Statutes (in the case of counties), section 166.021, Florida Statutes (in the case of municipal corporations), the Interlocal Act, any Charters of Authority Members, and other applicable provisions of law.

"Agreement" means this Interlocal Agreement between Franklin County, the City of _____ and the City of _____, including any amendments and supplements hereto executed and delivered in accordance with the terms hereof.

"Assessable Improvements" shall mean improvements to the Authority Facilities of a local nature and of special benefit to the premises or lands served thereby.

"Authority" shall mean the _____ Regional Utility Authority, a legal entity and public body created pursuant to the provisions of this Interlocal Agreement and the Act.

"Authority Facilities" shall mean the Authority's water production, transmission, distribution and treatment facilities and property, and the Authority's wastewater collection, treatment and disposal facilities and property, including reuse and reclaimed water facilities, as they may be modified, improved or expanded from time to time, which are owned, leased, operated, managed and/or used, from time to time, by the Authority to provide public wholesale water and wastewater services. The Authority Facilities shall include all Utility Systems. Authority Facilities shall include all property, real or personal, tangible or intangible, now or hereafter owned, leased,

operated or managed by the Authority in connection with the provision of public wholesale water and wastewater services.

"Authority Member" or **"Authority Members"** shall mean the member or members of the Authority, from time to time, as shall be provided for by this Interlocal Agreement. The Authority Members shall on the date hereof be Franklin County, Florida, the City of _____, Florida and the City of _____, Florida.

"Board" shall mean the governing board of the Authority, consisting of the Directors appointed hereunder.

"City Debt Defeasance Amount" means the amount required to redeem, defease or otherwise pay that portion of any Debt Obligations of the Cities issued to finance, or which are secured by the pledge of any revenues from, any portion of the City Facilities owned by the Cities which is to be transferred to the Authority. Such amount shall include the reasonable and necessary costs, fees and expenses incurred by the Cities in connection with the redemption, defeasance or payment of any such Debt Obligations, including, but not limited to (1) fees and disbursements of the bond counsel, (2) fees and disbursements of the financial advisors, and (3) any other costs of a similar nature reasonably incurred.

"City Facilities" shall mean the water supply, treatment, transmission and distribution and wastewater collection, treatment and disposal facilities, together with associated property, rights and assets owned by the Cities which shall be acquired by the Authority.

"City of ____" means the City of _____, Florida, a municipal corporation duly organized and validly existing under the laws of the State of Florida.

"City of _____" means the City of _____, Florida, a municipal corporation duly organized and validly existing under the laws of the State of Florida.

"Connection Fees" shall mean fees and charges imposed by the Authority to acquire, construct, equip or expand the capacity of the Authority Facilities for the purpose of paying or reimbursing the equitable share of the capital costs relating to such acquisition, construction, expansion or equipping of capacity or expansion thereof in order to provide additional capacity necessary to serve new users connecting to the Authority Facilities. Such Connection Fees may include interest carrying costs associated with the Authority Facilities.

"Cost" when used in connection with a Project, shall mean (1) the Authority's cost of construction; (2) costs of acquisition by or for the Authority of such Project; (3) costs of land and interests thereon and the cost of the Authority incidental to such acquisition; (4) the cost of any indemnity and/or surety bonds and premiums for insurance during construction; (5) all interest due to be paid on the Obligations relating to the Project during the period of completion of acquisition and construction of such Project and for a reasonable period subsequent to completion of acquisition and construction as the Board may determine by resolution; (6) engineering, legal and other consulting fees and expenses; (7) costs and expenses of the financing incurred for such Project, including audits, fees and expenses of any paying agent, registrar, trustee, consultants, attorneys, engineers, credit enhancers or depository; (8) payments, when due (whether at the maturity of principal or the due date of interest upon redemption) on any interim or temporary indebtedness incurred for such Project; (9) costs of machinery, equipment, supplies and spare parts required by the Authority for the

commencement of operation of such Project or continuation of operation of such Project; and (10) any other costs properly attributable to such Project or to the issuance of Obligations which finance such Project, as determined by generally accepted accounting principles applicable to such Project, and shall include reimbursement to the Authority for any such items of cost paid by the Authority prior to issuance of the Obligations issued to finance such Project. Additional items of cost may be provided pursuant to the Financing Documents.

"County" or **"Franklin County"** means Franklin County, Florida, a county and political subdivision of the State of Florida.

"County Debt Defeasance Amount" means the amount required to redeem, defease or otherwise pay that portion of any Debt Obligations of the County issued to finance, or which are secured by the pledge of any revenues from, any portion of the County Facilities. Such amount shall include the reasonable and necessary costs, fees and expenses incurred by the County in connection with the redemption, defeasance or payment of any such Debt Obligations, including, but not limited to (1) fees and disbursements of the County's bond counsel, (2) fees and disbursements of the County's financial advisor, and (3) any other costs of a similar nature reasonably incurred. This term shall also encompass the amount of state revolving loan funds secured by the Authority Members in the event that such loan funds must be re-paid on the Transfer Date. The parties acknowledge and agree that the Authority shall assume all outstanding state revolving loan funds and debt of any kind secured by either the Cities or the County prior to the Transfer Date to acquire, design, construct, expand, replace or otherwise improve the County Facilities or the City Facilities.

"County Facilities" shall mean the water supply, treatment, transmission and distribution, and wastewater collection, treatment and disposal facilities, together with associated property, rights and assets owned by the County which shall be acquired by the Authority.

"Debt Obligations" means any series of bonds, notes, state revolving loans or other evidence of indebtedness issued or incurred by any party hereto which the parties determine by mutual agreement correspond to the portions of the City Facilities and County Facilities to be transferred to the Authority pursuant to this Agreement.

"Director" shall mean that individual appointed in accordance with the provisions hereof to serve as a member of the Board. "Director" shall also include an alternate who is appointed to fill such role by an Authority Member.

"Easements" means all existing rights, privileges, easements, licenses, prescriptive rights, right-of-ways, and rights to use public and private roads, highways, streets, railroads and other areas owned or used by either the County or the Cities in connection with the construction, re-construction, installation, expansion, maintenance and operation of the City Facilities or County Facilities or the provision of Utility Service which is to be transferred to the Authority pursuant to this Agreement.

"Equivalent Dwelling Unit" or "EDU" shall mean the standard water and wastewater unit used to calculate demand upon either water or wastewater system capacity, based upon such daily usage standard applicable to a utility system as determined by resolution of the Board.

"Financing Documents" shall mean the resolution or resolutions duly adopted by the Authority, as well as any indenture of trust, trust agreement or other instrument relating to the issuance or security of the Obligations.

"Fiscal Year" shall mean the period commencing on October 1 of each year and continuing through the next succeeding September 30, or such other period as may be determined by the Board.

"General Manager" shall mean the individual or entity selected and employed by the Board to serve the Authority in such capacity.

"Government Grants" when used with respect to the Utility System, shall mean any sum of money heretofore or hereafter received by the Authority from the United States of America or any agency thereof or from the State of Florida or any agency or political authority, for or with respect to (1) the construction, acquisition or other development of any addition, extension or improvement to any part of the Utility System owned, acquired or operated by the Authority, or any costs of such construction, acquisition or development, or (2) the financing of any such construction, acquisition, development or costs.

"Implementation Cost" means the reasonable and necessary costs, fees and expenses incurred by the Cities and the County in connection with the development and preparation of an implementation plan to establish operation and administration of the Utility Assets under ownership of the Authority.

"Interlocal Act" shall mean Part I of Chapter 163, Florida Statutes.

"Interlocal Agreement" shall mean this Interlocal Agreement, including any amendments or supplements hereto, executed and delivered in accordance with the terms hereof.

"Obligations" shall mean a series of bonds or other evidence of indebtedness, including, but not limited to, notes, commercial paper, capital leases or any other obligations of the Authority issued hereunder and pursuant to the Financing Documents.

"Pledged Funds" shall mean (1) the revenues, fees, charges, special assessments and other moneys received by the Authority or its designee relating to its ownership or operation of the Authority Facilities, or some portion thereof, (2) until applied in accordance with the terms of the Financing Documents, all moneys in the funds, accounts and subaccounts established thereby, including investments therein, and (3) such other property, assets and monies of the Authority as shall be pledged pursuant to the Financing Documents; in each case to the extent provided by the Board pursuant to the Financing Documents. The Pledged Funds pledged to one series of Obligations may be different than the Pledged Funds pledged to other series of Obligations.

"Project" shall mean any structure, property or facility which the Authority, from time to time, may determine to construct or acquire as part of its Authority Facilities, together with all improvements, equipment, structures and other facilities necessary or appropriate in connection therewith. This term is to be broadly construed so as to include any lawful undertaking which will accrue to the benefit of the Authority Facilities, including joint ventures and acquisitions of partial interests or contractual

rights. “Project” shall include, but not limited to, acquisition of the County Facilities and City Facilities, and the construction of any improvements thereto. “Project” may also include working capital, as well as any costs or judgments associated with litigation.

“Public Agencies” shall mean any “public agency,” as defined in the Interlocal Act.

“Service Area” shall mean the geographic boundary of Franklin County, Florida, as may be limited in writing to specific portions of the unincorporated County by the Authority Members, at any time, together with such other areas as the Board may identify in the future for service by the Authority.

“State” shall mean the State of Florida.

“Transaction Cost” means for any series of Acquisition Debt Obligations, the reasonable and necessary costs, fees and expenses incurred by the Authority, the Cities or County in connection with the issuance and sale of Acquisition Debt Obligations, including state revolving loan fund obligations, directly related to the County Facilities and the City Facilities to be transferred to the Authority pursuant to this Agreement, including but not limited to (1) underwriters’ discounts; (2) original issue discount; (3) rating agency and other financing fees; (4) the fees and disbursements of the Authority’s consulting engineers; (5) the fees and disbursements of the Authority’s bond counsel, water and wastewater utility counsel and consultants; (6) the fees and disbursements of the Authority’s financial advisor; (7) the amounts paid or payable to the County and the Cities pursuant to Sections 8.02 and 9.03 hereof; (8) the costs of preparing or printing the Acquisition Debt Obligations and the documentation supporting the issuance of such Debt Obligations; (9) the fees payable in respect of any municipal bond insurance

policy or other credit enhancements; and (10) any other costs of a similar nature reasonably incurred.

"Transfer Date" means the date on which the Acquisition Debt Obligations are anticipated to be issued and closing on the conveyance and transfer of the County Facilities and the City Facilities, including all Utility Assets connected with such facilities, occurs as provided in Article VII hereof.

"Utility Acquisition Agreement" shall mean an agreement between the Authority and an Authority Member, other Public Agency or entity, if applicable, relating to the disposition of utility facilities, which are located within the jurisdiction of such Authority Member or Public Agency.

"Utility Assets" means those assets, business properties, and rights both tangible and intangible, that the County or the Cities own or use in conjunction with the operation of the County Facilities and City Facilities, or which during the term of this Interlocal Agreement may become available to any of them, or any ownership interest which any of them has or hereafter acquires during the term of this Agreement, relating thereto, including the following:

(1) All real property and interests, whether recorded in the public records or not, in real property owned, used or controlled in conjunction with the operation of the City Facilities.

(2) All water and wastewater, including non-potable, reuse and reclaimed water treatment plants, wells, transmission, distribution, pumping, effluent and disposal facilities of every kind and description whatsoever including without limitation, all trade fixtures, leasehold improvements, pumps, generators, controls, tanks, or

transmission pipes or facilities, valves, meters, and all other physical facilities and property installations used in the operation of the City Facilities, together with an assignment of all existing and assignable third party warranties that relate to completed or in progress construction.

(3) All equipment, vehicles, tools, parts, laboratory equipment, and other personal property owned or used by either of the Cities in connection with the operation of the City Facilities.

(4) All Easements in favor of the Cities or their predecessors in interest connected with the City Facilities.

(5) All as-built surveys and water and wastewater plans, plats, engineering and other drawings, designs, blueprints, plans and specifications, maintenance and operating manuals, engineering reports, calculations, computer models and studies, accounting, budget and business records and all other information controlled by or in the possession of the Cities that relate to the description and operation of the City Facilities, inclusive of all pertinent computer records and the lawful use of all computer software which is or was used in the operation of the City Facilities for record keeping purposes, including but not limited to the lawful use of any licensed software or proprietary software developed for the Cities.

(6) All necessary regulatory authority or approvals subject to all conditions, limitations or restrictions contained therein, including all existing permits and other governmental authorizations and approvals of any kind necessary to operate or provide Utility Service or construct, operate, expand, and maintain the City Facilities according to all governmental requirements.

(7) All rights and obligations of the Cities as of the Transfer Date relating to their respective Utility Assets or the City Facilities under any existing or proposed agreements and contracts which specifically relate to such facilities.

(8) All moneys, funds, accounts and intangibles, or an amount equivalent thereto as of the Transfer Date, held under or pursuant to any Debt Obligations, indenture of trust, resolution, ordinance, or other instrument by the Cities, or any third party for the benefit of any ratepayers of the City Facilities, or in connection with the financing or operation of the City Facilities to be transferred to the Authority pursuant to this Agreement.

"Utility Service" means the Authority's duty, obligation, power and authority to acquire, obtain, construct, provide, collect, distribute, dispose of, finance and charge for the supply of potable and non-potable water, treatment, storage, transmission, or distribution facilities and associated services and wastewater collection, treatment, disposal and reuse or non-potable water facilities and associated services.

"Utility System" shall mean the Authority Facilities comprising a water system and a wastewater system. The Utility System includes the City Facilities.

SECTION 1.02. CONSTRUCTION.

(A) Words importing the singular number shall include the plural in each case and vice versa, and words importing persons shall include firms and corporations. The terms "herein," "hereunder," "hereby," "hereto," "hereof," and any similar terms, shall refer to this Agreement; the term "heretofore" shall mean before the date this Agreement is executed; and the term "hereafter" shall mean after the date this Interlocal Agreement is executed.

(B) Each recital, covenant, agreement, representation and warranty made by a party herein shall be deemed to have been material and to have been relied on by both parties to this Agreement. The parties have participated in the drafting and preparation of this Agreement or are a successor to the authors and a beneficiary hereof, and the provisions hereof shall not be construed for or against either party by reason of authorship.

(C) Nothing herein is intended to, or shall be construed to, limit the power of local self-government of the county or cities, or conflict with the Constitution of the State of Florida.

SECTION 1.03. SECTION HEADINGS. Any headings preceding the texts of the several Articles and Sections of this Interlocal Agreement and any table of contents or marginal notes appended to copies hereof shall be solely for convenience of reference and shall neither constitute a part of this agreement nor affect its meaning, construction or effect.

SECTION 1.04. FINDINGS. It is hereby ascertained, determined and declared that:

(A) The County and the Cities have the power to enter into an agreement with each other and to join with each other in the exercise of common powers. The parties hereto independently and collectively have determined that entering into this Agreement serves the public interest and economic advantage of both parties hereto.

(B) The County has initiated steps to assist the Cities in the provision of water and wastewater service in the County, including obtaining funding to plan, design and construct utility facilities in several areas of the County.

(C) The Cities presently own and operate water and wastewater treatment, distribution and collection systems and treatment facilities within both incorporated and unincorporated areas of Franklin County, Florida.

(D) Although the Cities provide water and wastewater facilities and services in the incorporated areas of the Cities, a substantial portion of the unincorporated areas of Franklin County are not served by central water and wastewater facilities normally and generally provided and maintained by governmental agencies, and, instead, are served by an uncoordinated mix of private wells, septic tanks, small individually owned on-site disposal systems or package sewage treatment plants, or investor-owned facilities.

(E) To provide for the public interest and welfare, the County and the Cities are required to address and balance (1) the impacts of growth in Franklin County; (2) the need to provide and plan for adequate and timely delivery of potable and non-potable water needs and to plan for quality wastewater collection, treatment, disposal and re-use and non-potable water facilities which are necessary to accommodate existing development and anticipated future growth in a manner concurrent with the demand for such facilities; (3) the requirements of state and federal mandates; and (4) the demands of new development and each local government's statutory responsibility to implement financially feasible comprehensive plans.

(F) The provision of water and wastewater service and facilities in an uncoordinated fashion and the provision of wastewater service and facilities through septic tanks, small privately-owned on-site disposal systems or package sewage treatment plants constitute impediments to the implementation of financially feasible local comprehensive plans. A regional, publicly-owned utility system responsive to the

public demand for better utility service and for consistent protection of the environment can provide a high level of treatment and operation beneficial to the public now and in the future.

(G) The County and the Cities desire to cooperatively advance the development of a more uniform and regional approach to the delivery of potable and non-potable water and wastewater services and facilities throughout Franklin County.

(H) A regional approach to the delivery of potable and non-potable water and wastewater services and facilities within Franklin County will provide the opportunity for the County and the Cities to (1) develop an efficient and environmentally sensitive approach to the comprehensive supply, distribution and treatment of water and the collection, treatment and disposal of wastewater; (2) seek economies of scale resulting from the unified and coordinated provision of regional utility services; (3) ensure that current and future users of water and wastewater facilities and services within Franklin County are provided with cost efficient services at reasonable rates; (4) ensure that the operation and maintenance of potable and non-potable water and wastewater facilities is done in a pro-active, accountable and environmentally responsible manner; (5) stabilize potable and non-potable water and wastewater utility rates over the long term, reduce inefficient expansion and extension of service capabilities and avoid the proliferation of smaller and inefficient treatment facilities and sites; (6) assure the appropriate expansion and interconnection of existing facilities and the construction of future facilities in a coordinated, uniform and non-discriminatory manner which avoid special or disproportionate benefit to individual utility operations or special interests at the expense of either current or future users; (7) promote the protection and

environmentally sensitive utilization of water supplies, surface water and ground water resources in Franklin County and surrounding areas; and (8) foster a greater public use and increase public benefit from the ownership, operation and control of water and wastewater systems and facilities by local government.

ARTICLE II

THE AUTHORITY

SECTION 2.01. CREATION. The Authority Members hereby create and establish the "_____ Regional Utility Authority," a legal entity and public body and a unit of local government, with all of the privileges, benefits, powers and terms provided for herein and by the Act.

SECTION 2.02. PURPOSES.

(A) The purpose of this Interlocal Agreement is to establish the Authority in order to: (i) acquire water and/or wastewater utility facilities as may be identified by an Authority Member including, but not limited to, City Facilities, and to make improvements to such facilities and systems which are acquired by the Authority; (ii) acquire, construct, own, improve, operate, manage and/or maintain the Authority Facilities; (iii) provide the most economic and efficient water and wastewater utility services in a non-discriminatory manner; and (iv) dispose, from time to time, of such portions of the Authority Facilities to Authority Members, other Public Agencies or entities as it deems appropriate in accordance with the terms hereof, the Financing Documents and the terms of any Utility Acquisition Agreements.

(B) The Authority Members do hereby consent and agree to the acquisition of the City Facilities identified in Appendix _____ within their respective jurisdictions

by the Authority in accordance with the terms of this Interlocal Agreement and applicable law.

(C) The creation and organization of the Authority and the fulfillment of its objectives serves a public purpose, and is in all respects for the benefit of the people of this State, affected Public Agencies and their constituents, and the persons or entities to be served by the Authority Facilities. The Authority is performing an essential governmental function. All property of the Authority is and shall in all respects be considered to be public property, and the title to such property shall be held by the Authority for the benefit of the public. The use of such property shall be considered to serve a public purpose, until disposed of upon such terms as the Authority may deem appropriate. Insofar as provided for by law, all Obligations and interest or income thereon and all the property, facilities, services, activities and revenues of the Authority are declared to be nontaxable for any and all purposes by the State or federal government or any unit of the State or federal government to the same extent as if owned or issued by or on behalf of the Authority Members or a Public Agency.

SECTION 2.03. AUTHORITY MEMBERS. The Authority Members shall consist of those Public Agencies as provided in Article III hereof.

SECTION 2.04. DURATION OF AUTHORITY. The Authority shall exist so long as any portion of the Authority Facilities is owned, operated, leased or managed by the Authority or the Authority has Obligations outstanding. At such time as the Authority no longer owns, operates, leases or manages any portion of the Authority Facilities and no Obligations are outstanding, the Authority may dissolve by majority vote of the Board. In the event of dissolution, any assets of the Authority shall be

allocated between the Authority Members in a manner to be determined by Authority Members at the time of such termination.

SECTION 2.05. TRANSFER OF UTILITY SYSTEM OR PORTION THEREOF TO OTHER AUTHORITIES. The Authority may transfer Utility System(s) and any Obligations relating thereto to another governmental utility authority upon satisfaction of the following conditions:

(A) Such governmental utility authority has been duly created pursuant to section 163.01(7)(g), Florida Statutes, with substantially the same powers provided herein and such authority assumes all responsibilities and liabilities in regard to such transfer.

(B) Such transfer is approved by [super-majority] of the Directors, which majority must include the Authority Member Director or Directors where such Utility System or portion thereof is located.

(C) Such transfer shall be approved by the governing body of any Authority Member in whose jurisdiction the Utility System is located.

(D) The Authority receives an opinion of nationally recognized bond counsel to the effect that the transfer of such Utility System and Obligations will not adversely affect the tax-exempt status of such Obligations.

ARTICLE III
MEMBERSHIP AND REPRESENTATION

SECTION 3.01. MEMBERSHIP.

(A) Membership in the Authority shall consist of those Public Agencies selected pursuant to this Article III.

(B) The Authority Members shall on the date hereof consist of: Franklin County, Florida, the City of ____, Florida and the City of ____, Florida.

(C) To the extent permitted by the Interlocal Act, the Authority may admit any Public Agency to membership upon application of such Public Agency and the affirmative vote of the majority plus one of all Directors at a duly called meeting of the Authority. This Interlocal Agreement need not be amended in order to admit any Public Agency as an Authority Member. Approval of the governing bodies of the Authority Members shall be required to admit a new Authority Member.

(D) As a precondition to membership in the Authority, each Authority Member shall constitute a Florida municipality, county, special district or such other Public Agency which is permitted by the Interlocal Act to be a member of the Authority. Such new Authority Member shall execute, deliver and record a duly authorized counterpart to this Interlocal Agreement. Authority Members may be admitted regardless of whether any Authority Facilities are located within the jurisdiction of such Authority Member.

SECTION 3.02. REPRESENTATION ON THE BOARD.

(A) The County shall appoint _____ Directors, the City of _____ shall appoint _____ Directors and the City of _____ shall appoint _____ Directors to act on their behalf on the Board. Each Director shall be an individual who shall be appointed specifically by name or by position. In addition, each Authority Member may appoint an alternate Director to serve in the absence or unavailability of one of the Directors. The Directors appointed by the County and Cities shall elect one additional Director who also shall serve as the initial Chair of the Authority.

(B) In the event the Director of an Authority Member shall resign or be removed, such Authority Member shall appoint a new Director within thirty (30) calendar days. In the event such Authority Member does not appoint a new Director within thirty (30) calendar days of resignation or removal and such Authority Member has appointed an alternate Director, such alternate Director shall serve in the capacity as Director. In the event such Authority Member does not appoint a new Director within thirty (30) calendar days of resignation or removal and such Authority Member has not appointed an alternate Director, the Board may appoint such Director who shall serve until such time as such affected Authority Member shall appoint a new Director; provided any new Director appointed by the Board shall be a resident of such Authority Member. Any Director who is absent for three (3) consecutive meetings of the Board shall be deemed to have resigned.

(C) Each Authority Member, in its sole discretion, may remove its Director at any time and may appoint a new Director to serve on the Board upon notice being given to the Authority as provided by Section 3.06(A) hereof for resignation of a Director.

(D) No Director may be an elected official of an Authority Member or a County Manager or City Manager or their functional equivalent. Directors may be employees of an Authority Member.

(E) Any Director may be removed upon the affirmative vote of at least [super-majority] of all Directors at a duly called meeting of the Authority.

SECTION 3.03. ACTION.

(A) The affairs, actions and duties of the Authority shall be undertaken at a duly called meeting pursuant to Section 3.08 hereof.

(B) At any meeting of the Authority at which any official action is to be taken, a majority of all Directors shall constitute a quorum. A majority vote of a quorum of the Directors present at a duly called meeting shall constitute an act of the Authority, except as otherwise provided herein.

(C) A certificate, resolution or instrument signed by the Chairman, Vice-Chairman or such other person of the Authority as may be hereafter designated and authorized by the Board shall be evidence of the action of the Authority and any such certificate, resolution or other instrument so signed shall conclusively be presumed to be authentic. Likewise, all facts and matters stated therein shall conclusively be presumed to be accurate and true.

SECTION 3.04. ELECTION OF OFFICERS. Once a year, and at such other time as may be necessary to fill a vacancy, at a duly called meeting of the Board called for the purpose thereof, the Authority through its Directors shall elect a Chairman, a Vice-Chairman and Secretary-Treasurer to conduct the meetings of the Authority and to perform such other functions as herein provided. At the discretion of the Board, the General Manager (or representative thereof) may be appointed as the Secretary-Treasurer. Said Chairman, Vice-Chairman and Secretary-Treasurer shall serve one (1) year terms unless they resign from the Authority or such officer is replaced by the Board.

SECTION 3.05. AUTHORITY OF OFFICERS.

(A) The Chairman and the Vice-Chairman shall take such actions, have all such powers and sign all documents on behalf of the Authority and in furtherance of the

purposes of this Interlocal Agreement as may be approved by resolution of the Board adopted at a duly called meeting.

(B) The Secretary-Treasurer, or his designee, shall keep minutes of all meetings, proceedings and acts of the Board, but such minutes need not be verbatim. Copies of all minutes of the meetings of the Authority shall be sent by the Secretary-Treasurer or his designee to all Directors to the Authority. The Secretary-Treasurer may also attest to the execution of documents. The Secretary-Treasurer shall have such other powers as may be approved by resolution of the Board adopted at a duly called meeting.

SECTION 3.06. RESIGNATION.

(A) Any Director may resign from all duties or responsibilities hereunder by giving at least thirty (30) calendar days prior written notice sent by registered mail to the General Manager. Such notice shall state the date said resignation shall take effect and such resignation shall take effect on that date.

(B) Any resigning Director who is an officer of the Authority shall immediately turn over and deliver to the General Manager any and all records, books, documents or other property in his possession or under his control which belong to the Authority.

SECTION 3.07. POWERS AND DUTIES OF THE BOARD. The Board shall act as the governing board of the Authority and shall have, in addition to all other powers and duties described herein, the following powers and duties:

(A) To fix the time and place or places at which its regular meetings shall be held, and to call and hold special meetings.

(B) To make and pass rules, regulations, resolutions and orders not inconsistent with the Constitution of the United States or of the State, or to the provisions of the Interlocal Act or this Interlocal Agreement, necessary for the governance and management of the affairs of the Authority, for the execution of the powers, obligations and responsibilities vested in the Authority, and for carrying into effect the provisions of this Agreement.

(C) To fix the location of the principal place of business of the Authority and the location of all offices maintained thereunder.

(D) To create any and all necessary offices in addition to Chairman, Vice-Chairman and Secretary-Treasurer; to establish the powers, duties and compensation of all employees; and to require and fix the amount of all official bonds necessary for the protection of the funds and property of the Authority.

(E) To select and employ a General Manager, who shall administer the affairs and manage the staff of the Authority with Board approval, and perform all other administrative duties as directed by the Board.

(F) To employ or hire such attorneys or firm(s) of attorneys as it deems appropriate to provide legal advice and/or other legal services to the Authority.

(G) To amend the Authority's name, as permitted by law.

(H) To do all things reasonable, according to best industry practice, and in compliance with applicable federal and state laws to maintain security for the Authority Facilities and at all sites where Authority Facilities are located.

SECTION 3.08. MEETINGS.

(A) The Board shall convene at a meeting duly called by either a majority of the Directors or the Chairman. The Directors may establish regular meeting times and places. Meetings shall be conducted at such locations as may be determined by the majority of the Directors or the Chairman. Notice of a special meeting, unless otherwise waived, shall be furnished to each Director by the General Manager not less than seven (7) calendar days prior to the date of such meeting; provided the Chairman or, in his absence or unavailability, the Vice-Chairman, may call a meeting upon twenty-four (24) hours written notice, if such officer determines an emergency exists. All meetings shall be noticed in accordance with applicable law.

(B) Within thirty (30) calendar days of the creation of the Authority, the duly appointed Directors shall hold an organizational meeting to elect officers and perform such other duties as are provided for under this Interlocal Agreement.

SECTION 3.09. WITHDRAWAL OR DISMISSAL OF AUTHORITY MEMBERS.

(A) Any Authority Member may withdraw from the Authority at any time, if the following conditions are satisfied: (i) there shall be at least two (2) Authority Members remaining in the Authority subsequent to withdrawal, and (ii) a certified resolution from the Authority Member's governing body setting forth its intent to withdraw is presented to the Authority. Upon satisfaction of the foregoing conditions, such withdrawal shall be effective.

(B) In the event the Authority does not own, operate, lease or manage a Utility System, or portion thereof, within the jurisdiction of an Authority Member, such

Authority Member may be dismissed from the Authority by majority vote of all Directors unless subsequent to dismissal there shall be less than two (2) Authority Members remaining in the Authority.

SECTION 3.10. EXPENSES. The Authority may establish, from time to time, procedures for reimbursement for reasonable expenses incurred by Authority Members, Directors and employees of the Authority.

SECTION 3.11. LIABILITY. No Director, agent, officer, official or employee of the Authority shall be liable for any action taken pursuant to this Interlocal Agreement in good faith or for any omission, except gross negligence, or for any act of omission or commission by any other Director, agent, officer, official or employee of the Authority.

ARTICLE IV

POWERS AND DUTIES

SECTION 4.01. POWERS.

(A) The Authority shall have all powers to carry out the purposes of this Interlocal Agreement, including the following powers which shall be in addition to and supplementing any other privileges, benefits and powers granted by the Act:

(i) To acquire, construct, own, lease, operate, manage, maintain, dispose of, improve and expand the Authority Facilities, and to have the exclusive control and jurisdiction thereof.

(ii) To fix, levy and collect rates, fees and other charges (including Connection Fees) from persons or property, or both, including the Authority Members, for the use of the services, facilities and product of the Authority

Facilities or to pay the operating or financing costs of the Authority Facilities available to potential users; to fix and collect charges for making connections with the Authority Facilities and, to the extent provided by law, to provide for reasonable penalties to be imposed on any users or property for any such rates, fees or charges that are delinquent, all as more specifically described in Section 4.06 hereof.

(iii) To contract for the service of engineers, accountants, attorneys and other experts or consultants, and such other agents and employees as the Board may require or deem appropriate from time to time.

(iv) To acquire such lands and rights and interests therein, including lands under water and riparian rights and to acquire such personal property as the Authority may deem necessary and appropriate in connection with the acquisition, ownership, expansion, improvement, operation and maintenance of the Authority Facilities and to hold and dispose of all real and personal property under its control. To the extent the power of eminent domain is available to the Authority in accordance with applicable law, in particular the Interlocal Act, such power may be exercised by the Authority both within and outside the Service Area of the Authority Facilities for the purpose of carrying out the intent of this Agreement.

(v) To exercise exclusive jurisdiction, control and supervision over the Authority Facilities and to make and enforce such rules and regulations for the maintenance, management and operation of the Authority Facilities as may be, in the judgment of the Board, necessary or desirable for the efficient operation of

the Authority Facilities in accomplishing the purposes of this Interlocal Agreement.

(vi) To enter into other interlocal agreements or join with any other special purpose or general purpose local governments, public agencies or authorities in the exercise of common powers or to assist the Authority in acquiring land and rights or interests therein.

(vii) To contract with private or public entities or persons to provide, treat or receive water or to provide or receive wastewater disposal or treatment. To contract with any private or public entity or person for the operation or management of the Authority Facilities.

(viii) To prescribe methods of pretreatment of industrial wastes not amenable to treatment with domestic wastewater before accepting such wastes for treatment and to refuse to accept such industrial wastes when not sufficiently pretreated as may be prescribed, and, to the extent permitted by law, to prescribe penalties for the refusal of any person or corporation to so pretreat such industrial wastes.

(ix) To the extent provided by law, to require and enforce the use of services, products and facilities of the Authority whenever and wherever they are accessible, and to require and enforce the installation and dedication to the Authority of water and wastewater facilities or easements as a condition precedent to the provision of service by the Authority or by another entity authorized by the Authority to provide interim service until Authority services, products and facilities are available.

(x) To sell or otherwise dispose of the effluent, sludge or other by-products as a result of wastewater treatment.

(xi) To accomplish construction directly or by letting construction contracts to other entities, whether public or private, for all or any part of the construction of improvements to the Authority Facilities as determined by the Board in accordance with applicable law.

(xii) To construct, maintain and operate connecting, intercepting, or outlet wastewater and wastewater mains and pipes and water mains, conduits or pipelines in, along or under any streets, alleys, highways or other public places or ways regulated by or under the jurisdiction of the State or any political subdivision or municipal corporation when necessary or convenient for the purposes of the Authority.

(xiii) Subject to such provisions and restrictions as may be set forth in any Financing Document, to enter into contracts with the government of the United States or any agency or instrumentality thereof, the State, or with any municipality, county, district, authority, political subdivision, private corporation, partnership, association or individual providing for or relating to the collection, treatment and disposal of wastewater, or the treatment and supply of water and any other matters relevant thereto or otherwise necessary to effect the purposes of this Interlocal Agreement. To receive and accept from any federal or State agency, grants or loans for or in aid of the planning, construction, reconstruction or financing of improvements, additions or extensions to the Authority Facilities and to receive and accept aid or contributions or loans from

any other source of either money, labor or other things of value, to be held, used and applied only for the purpose for which such grants, contributions or loans may be made.

(xiv) To assume the ownership, lease, operation, management and/or control of any publicly or privately owned water and wastewater facilities, including the assumption of the financial liabilities associated with such water and wastewater facilities.

(xv) To divide the Authority Facilities into separate units, benefit areas, subsystems or subdistricts for imposing special assessments, setting rates, accounting or financing improvements or additions, or any other purpose.

(xvi) To appoint advisory boards and committees to assist the Board in the exercise and performance of the powers and duties provided in this Interlocal Agreement.

(xvii) To sue and be sued in the name of the Authority.

(xviii) To adopt and use a seal and authorize the use of a facsimile thereof.

(xix) To contract with any public or private entity or person to manage and operate the Authority Facilities, or any portion thereof, upon such terms as the Board deems appropriate.

(xxi) Subject to such provisions and restrictions as may be set forth herein and in any Financing Document, to sell or otherwise dispose of the Authority Facilities, or any portion thereof, upon such terms as the Board deems

appropriate. To enter into Utility Acquisition Agreements to effect such dispositions.

(xxi) To acquire, by purchase, gift, devise or otherwise, and to dispose of, real or personal property, or any estate therein.

(xxii) To make and execute contracts or other instruments necessary or convenient to the exercise of its powers.

(xxiii) To provide such retirement benefits and program as the Board deems appropriate.

(xxiv) To maintain an office or offices at such place or places as the Board may designate from time to time.

(xxv) To hold, control and acquire by donation or purchase, or dispose of, any public easements, dedications to public use, platted reservations for public purposes, or any reservations for those purposes authorized by this Agreement and to make use of such easements, dedications and reservations for any of the purposes authorized by this Agreement.

(xxvi) To lease, as lessor or lessee, to or from any person, firm, corporation, association or body, public or private, facilities or property of any nature to carry out any of the purposes authorized by this Agreement.

(xxvii) To borrow money and issue bonds, certificates, warrants, notes, obligations or other evidence of indebtedness.

(xxviii) To assess, levy, impose, collect and enforce special assessments to provide Assessable Improvements upon all or any portion of the lands located within the Service Area. Such special assessments may be apportioned among

benefited property in a manner proportionate with the benefits received or commensurate with the burdens alleviated by the maintenance and use of property based upon such factors or combination of factors as determined by resolution of the Board. Such special assessments may, in the discretion of the Board, be imposed, collected and enforced using any methods and procedures authorized by law, including section 197.3632, Florida Statutes; or the Board may adopt by resolution its own method or procedures or use any other method or means for levy, imposition, collection and enforcement not inconsistent with law.

(xxix) To apply for and accept grants, loans and subsidies from any governmental entity for the acquisition, construction, operation and maintenance of the Authority Facilities, and to comply with all requirements and conditions imposed in connection therewith.

(xxx) To the extent allowed by law and to the extent required to effectuate the purposes hereof, to exercise all privileges, immunities and exemptions accorded municipalities and counties of the State under the provisions of the constitution and laws of the State.

(xxxi) To invest its moneys in such investments as directed by the Board in accordance with State law and which shall be consistent in all instances with the applicable provisions of the Financing Documents.

(xxxii) To purchase such insurance as it deems appropriate.

(xxxiii) To take all actions reasonable and necessary, according to best industry practice and in compliance with applicable federal and state laws to

maintain security for the Authority Facilities and all sites where Authority Facilities are located.

(xxxiv) To do all acts and to exercise all of the powers necessary, convenient, incidental, implied or proper in connection with any of the powers, duties or purposes authorized by this Interlocal Agreement or the Act.

(B) In exercising the powers conferred by this Interlocal Agreement the Board shall act by resolution or motion made and adopted at duly noticed and publicly held meetings in conformance with applicable law.

(C) The provisions of Chapter 120, Florida Statutes, shall not apply to the Authority.

SECTION 4.02. ANNUAL BUDGET.

(A) Prior to October 1 of each year the Board will adopt an annual budget for the Authority. Such budget shall be prepared within the time periods required for the adoption of a tentative and final budget for county governments under general law. The annual budget shall contain an estimate of receipts by source and an itemized estimation of expenditures anticipated to be incurred to meet the financial needs and obligations of the Authority. The General Manager shall prepare the annual budget. The annual budget shall contain a five-year capital improvement plan.

(B) The Board shall publish a notice of the meeting in which the annual budget is to be adopted, which notice shall be published once a week for two (2) consecutive weeks thirty (30) days prior to the date of the hearing in a newspaper qualified to accept legal advertisement within Franklin County. A copy of the proposed budget indicating the five-year capital plan and a notice of the time and place of the

Board meeting at which the annual budget is to be adopted shall be provided to each Authority Member prior to the first publication date.

(C) The adopted budget shall be the operating and fiscal guide for the Authority for the ensuing Fiscal Year. The Board may from time to time amend the budget at any duly called regular or special meeting.

(D) The Authority shall provide financial reports in such form and in such manner as prescribed pursuant to this Agreement and Chapter 218, Florida Statutes.

(E) The Board shall cause to be made at least once a year, within one hundred eighty (180) days of the end of the Fiscal Year, a report of the Authority Facilities, including all matters relating to expansions, acquisitions, rates, revenues, expenses, principal and interest requirements of the Obligations and the status of all funds and accounts. Copies of such report shall be filed with the Secretary-Treasurer and shall be open to public inspection. The report shall be known as the "Annual Authority Facilities Report". The Annual Authority Facilities Report may be included as a part of any other report or reports required by law or may be issued separately. The Secretary-Treasurer shall provide each Authority Member with a copy of the Annual Authority Facilities Report.

SECTION 4.03. OBLIGATIONS.

(A) The Board shall have the power and it is hereby authorized to provide pursuant to the Financing Documents, at one time or from time to time in series, for the issuance of Obligations of the Authority, or notes in anticipation thereof, for one or more of the following purposes:

(i) Paying all or part of the Cost of one or more Projects,

(ii) Refunding any bonds or other indebtedness of the Authority,

(iii) Assuming or repaying the indebtedness relating to Authority Facilities, acquired or leased by the Authority from a public or private entity,

(iv) Setting aside moneys in a renewal or replacement account,

(v) Funding a debt service reserve account,

(vi) Capitalizing interest on the Obligations,

(vii) Paying costs of issuance relating to the Obligations, and

(viii) Any other purpose relating to this Interlocal Agreement

The principal of and the interest on each series of Obligations shall be payable from the Pledged Funds, all as determined pursuant to the Financing Documents. The Authority may grant a lien upon and pledge the Pledged Funds in favor of the holders of each series of Obligations in the manner and to the extent provided in the Financing Documents. Such Pledged Funds shall immediately be subject to such lien without any physical delivery thereof and such lien shall be valid and binding as against all parties having claims of any kind in tort, contract or otherwise against the Authority.

(B) The Obligations of each series shall be dated, shall bear interest and such rate or rates, shall mature at such time or times not exceeding forty (40) years from their date or dates, may be made redeemable before maturity, at the option of the Authority, at such price or prices and under such terms and conditions, all as shall be determined by the Board pursuant to the Financing Documents. The Board shall determine the form of the Obligations, the manner of executing such Obligations, and

shall fix the denomination of such Obligations and the place of payment of the principal and interest, which may be at any bank or trust company within or without the State. In case any officer whose signature or a facsimile of whose signature shall appear on any Obligations shall cease to be such officer before the delivery of such Obligations, such signature or such facsimile shall nevertheless be valid and sufficient for all purposes the same as if he or she had remained in office until delivery. The Board may sell Obligations in such manner and for such price as it may determine to be in the best interest of the Authority in accordance with the terms of the Financing Documents. In addition to the Pledged Funds, the Obligations may be secured by such credit enhancement as the Board determines to be appropriate pursuant to the Financing Documents. The Obligations may be issued as capital appreciation bonds, current interest bonds, term bonds, serial bonds, variable bonds or any combination thereof, all as shall be determined pursuant to the Financing Documents.

(C) Prior to the preparation of definitive Obligations of any series, the Board may issue interim receipts, interim certificates or temporary Obligations, exchangeable for definitive Obligations when such Obligations have been executed and are available for delivery. The Board may also provide for the replacement of any Obligation which shall become mutilated, or be destroyed or lost. Obligations may be issued without any other proceedings or the happening of any other conditions or things than those proceedings, conditions or things which are specifically required by this Interlocal Agreement, the Financing Documents or other applicable laws.

(D) The proceeds of any series of Obligations shall be used for such purposes, and shall be disbursed in such manner and under such restrictions, if any, as the Board may provide pursuant to the Financing Documents.

(E) The Financing Documents may also contain such limitations upon the issuance of additional Obligations as the Board may deem appropriate, and such additional Obligations shall be issued under such restrictions and limitations as may be prescribed by such Financing Documents. The Financing Documents may contain such provisions and terms in relation to the Obligations and the Pledged Funds as the Board deems appropriate and which shall not be inconsistent herewith.

(F) Obligations shall not be deemed to constitute a general obligation debt of the Authority or the Authority Members or a pledge of the faith and credit of the Authority or any of the Authority Members, but such Obligations shall be payable solely from the Pledged Funds and any moneys received from the credit enhancers of the Obligations, in accordance with the terms of the Financing Documents. The issuance of Obligations shall not directly or indirectly or contingently obligate the Authority or any of the Authority Members to levy or to pledge any form of ad valorem taxation. No holder of any such Obligations shall ever have the right to compel any exercise of the ad valorem taxing power on the part of any of the Authority Members to pay any such Obligations or the interest thereon or the right to enforce payment of such Obligations, or the interest thereon, against any property of the Authority or any of the Authority Members, nor shall such Obligations constitute a charge, lien or encumbrance, legal or equitable, upon any property of the Authority or any of the Authority Members, except the Pledged Funds in accordance with the terms of the Financing Documents.

(G) All Pledged Funds shall be deemed to be trust funds, to be held and applied solely as provided in the Financing Documents. Such Pledged Funds may be invested by the Authority in such manner as provided in the Financing Documents.

(H) Any holder of Obligations, except to the extent the rights herein given may be restricted by the Financing Documents, may, either at law or in equity, by suit, action, mandamus or other proceeding, protect and enforce any and all rights under the laws of the State or granted hereunder or under the Financing Documents, and may enforce and compel the performance of all agreements or covenants required by this Interlocal Agreement, or by such Financing Documents, to be performed by the Authority or by any officer thereof.

(I) The Obligations may be validated, at the sole discretion of the Board, pursuant to Chapter 75, Florida Statutes. Obligations may be issued pursuant to and secured by a resolution of the Board.

(J) In addition to the other provisions and requirements of this Interlocal Agreement, any Financing Documents may contain such provisions as the Board deems appropriate.

(K) All Obligations issued hereunder shall not be invalid for any irregularity or defect in the proceedings for the issuance and sale thereof and shall be incontestable in the hands of bona fide purchasers for value. No proceedings in respect to the issuance of such Obligations shall be necessary except such as are required by this Interlocal Agreement, the Financing Documents and general law. The provisions of the Financing Documents shall constitute an irrevocable contract between the Authority and the holders of the Obligations issued pursuant to the provisions thereof.

(L) Holders of Obligations shall be considered third party beneficiaries hereunder and may enforce the provisions hereof.

(M) The Board may enter into such swap, hedge or other similar arrangements relating to any Obligations as it deems appropriate.

SECTION 4.04. AD VALOREM TAXATION NOT AUTHORIZED. The Authority shall not have the power to levy and assess an ad valorem tax on any property for any reason.

SECTION 4.05. CONNECTION FEES.

(A) The Authority is empowered to levy and collect Connection Fees relating to the Authority Facilities for capital improvements and debt service on such capital improvements under such conditions as shall be prescribed by the Board. Connection Fees may become Pledged Funds in accordance with the terms of the Financing Documents.

(B) The Board may change or revise the schedule of Connection Fees upon compliance with the notice and hearing requirements set forth for the adoption of rates, fees and other charges.

SECTION 4.06. UNPAID FEES. The Board shall have the power, under such reasonable procedures as the Board may adopt from time to time, to discontinue and shut off either or both water and wastewater services until delinquent fees, rates or charges, including interest and charges for the discontinuance and the cost of restoration of such water and wastewater services, or both, are fully paid.

SECTION 4.07. PLANNING REQUIREMENT.

(A) In addition to the other powers enumerated in this Interlocal Agreement the Authority shall have the power to adopt a master plan for the provision of Utility Services. Such master plan may include, at a minimum: the identification of current customers and the projections of future customers and their profiles (residential, commercial, industrial); a review and general inventory of all existing infrastructure and facilities; and an identification of water supply and treatment alternatives and available wastewater treatment and disposal alternatives, including plans for the use of reclaimed or reused water alternatives.

(B) Prior to the adoption of the annual budget, a five-year capital improvement plan shall be submitted to each Authority Member for a determination by such Authority Member that the capital improvement plan is consistent with the applicable local government comprehensive plan of such Authority Member adopted pursuant to Chapter 163, Part II, Florida Statutes.

(C) All utility expansion policies adopted by the Board shall be consistent with the land development regulations, local comprehensive plans and other applicable regulations adopted by the Authority Members.

SECTION 4.08. EFFECT OF INCORPORATION OR THE PRESENCE OF A SPECIAL DISTRICT ON AUTHORITY. The subsequent incorporation or annexation of any area within the County, or the presence or creation of any special district within the County, shall not impair nor alter the authority, power and purposes of the Authority for providing wholesale water and wastewater services and facilities within any portion of the County.

SECTION 4.09. CONDUIT TRANSACTIONS. In addition to the powers granted to the Authority hereunder, including the power to issue Obligations pursuant to this Article, the Authority may issue Obligations, to the extent permitted by law, for the principal purpose of loaning the proceeds thereof to a public or private entity, which shall finance or refinance the acquisition and construction of water treatment, production or transmission facilities or wastewater treatment, transmission or disposal facilities. Such

Obligations shall be secured in such manner as determined by the Board. Such security may include monies received pursuant to a loan agreement between the Authority and such public or private entity.

ARTICLE V

REPRESENTATIONS

SECTION 5.01. REPRESENTATIONS OF FRANKLIN COUNTY. Franklin County makes the following representations as the basis for the undertaking on the part of the Cities herein contained:

(A) The County is duly organized and validly existing as a political subdivision of the State of Florida.

(B) The County has full power and authority to enter into the transaction contemplated by this Agreement and to carry out its obligations hereunder.

(C) The County is not in default under any provisions of the laws of the State which are material to the performance of its obligations under this Agreement.

(D) The County has duly authorized the execution and delivery of this Agreement and, assuming the due authorization, execution and delivery by the Cities, this Agreement constitutes a valid and legally binding obligation of the County, enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by any applicable bankruptcy, insolvency, moratorium, reorganization or other similar laws affecting creditors' rights generally, or by the exercise of judicial discretion in accordance with general principles of equity.

(E) The authorization, execution and delivery of this Agreement and the compliance by the County with the provisions hereof will not conflict with or constitute a material breach of, or default under, any existing law, court or administrative regulation, decree, order or any provision of the Constitution or laws of the State

relating to the County or its affairs, or any ordinance, resolution, agreement, lease or other instrument to which the County is subject or by which it is bound.

(F) There is no action, suit, proceeding or investigation at law or in equity before or by any court, public board or body pending or, to the best knowledge of the County, threatened against or affecting the County, wherein an unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated, or which, in any way, would materially adversely affect the validity of this Agreement or any agreement or instrument to which the County is a party and which is used or contemplated for use in the consummation of the transactions contemplated hereby.

SECTION 5.02. REPRESENTATIONS OF THE CITY OF _____. The City makes the following representations as the basis for the undertaking on the part of the County and the City of _____ herein contained:

(A) The City is duly organized and validly existing as a municipal corporation of the State.

(B) The City has full power and authority to enter into the transactions contemplated by this Agreement and to carry out its obligations hereunder.

(C) The City is not in default under any provisions of the laws of the State which are material to the performance of its obligations under this Agreement.

(D) The City has duly authorized the execution and delivery of this Agreement and assuming the due authorization, execution and delivery by the County and the City of _____, this Agreement constitutes a valid and legally binding obligation of the City, enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by any applicable bankruptcy, insolvency, moratorium,

reorganization or other similar laws affecting creditors' rights generally, or by the exercise of judicial discretion in accordance with general principles of equity.

(E) The authorization, execution and delivery of this Agreement and the compliance by the City with the provisions hereof will not conflict with or constitute a material breach of, or default under, any existing law, court or administrative regulation, decree, order or any provision of the Constitution or laws of the State relating to the City or its affairs, or any ordinance, resolution, agreement, lease or other instrument to which the City is subject or by which it is bound.

(F) There is no action, suit, proceeding or investigation at law or in equity before or by any court, public board or body pending or, to the best knowledge of the City, threatened against or affecting the City, wherein an unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated hereby or which, in any way, would materially adversely affect the validity of this Agreement or any agreement or instrument to which the City is a party and which is used or contemplated for use in the consummation of the transactions contemplated hereby.

SECTION 5.03. REPRESENTATIONS OF THE CITY OF _____. The City makes the following representations as the basis for the undertaking on the part of the County and the City of _____ herein contained:

(A) The City is duly organized and validly existing as a municipal corporation of the State.

(B) The City has full power and authority to enter into the transactions contemplated by this Agreement and to carry out its obligations hereunder.

(C) The City is not in default under any provisions of the laws of the State which are material to the performance of its obligations under this Agreement.

(D) The City has duly authorized the execution and delivery of this Agreement and assuming the due authorization, execution and delivery by the County and the City of _____, this Agreement constitutes a valid and legally binding obligation of the City, enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by any applicable bankruptcy, insolvency, moratorium, reorganization or other similar laws affecting creditors' rights generally, or by the exercise of judicial discretion in accordance with general principles of equity.

(E) The authorization, execution and delivery of this Agreement and the compliance by the City with the provisions hereof will not conflict with or constitute a material breach of, or default under, any existing law, court or administrative regulation, decree, order or any provision of the Constitution or laws of the State relating to the City or its affairs, or any ordinance, resolution, agreement, lease or other instrument to which the City is subject or by which it is bound.

(F) There is no action, suit, proceeding or investigation at law or in equity before or by any court, public board or body pending or, to the best knowledge of the City, threatened against or affecting the City, wherein an unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated hereby or which, in any way, would materially adversely affect the validity of this Agreement or any agreement or instrument to which the City is a party and which is used or contemplated for use in the consummation of the transactions contemplated hereby.

SECTION 5.04. REPRESENTATIONS OF BOTH THE COUNTY AND CITIES TO THE AUTHORITY. The County, with respect to the County Facilities, and the Cities, with respect to the City Facilities, individually, represent as follows to the Authority:

(A) From and after the date of execution of this Agreement, neither the County nor the Cities shall without the prior written consent of the Authority, dispose of or encumber the County Facilities or the City Facilities or any of the Utility Assets with the exception of non-material transactions occurring in the ordinary course of business, provided, however, such written consent and approval shall not be unreasonably withheld.

(B) From and after the date of execution of this Agreement, there shall be no material depletion of the County Facilities or the City Facilities or the Utility Assets, nor any material adverse change in the condition of the County Facilities or City Facilities or the Utility Assets; and, the County Facilities and the City Facilities and all of the Utility Assets shall be properly maintained within the custom and usage of the industry through the Transfer Date.

(C) Except as disclosed in Appendix ____, neither the County nor the Cities have been cited nor notified, and no party hereto is, after due inquiry, aware of any violation of any governmental rule, regulation, permitting condition or governmental requirement of any type or nature applicable to the ownership, maintenance or operation of the Utility System, the Utility Assets or the manner in which the Utility Service is being performed, nor is any party hereto aware of any conditions which by reason of the passing of time or the giving of notice by the appropriate governmental

agency would constitute such a violation. Each party agrees that it shall be under a continuing obligation to notify the other parties hereto in writing in the event of a material change in the foregoing representations.

(D) The City Facilities and the Utility Assets are located on real property which has been zoned by appropriate authorities under zoning certifications, special exceptions or variances which will permit the respective use of such parcels for water and wastewater utility purposes; and, to the extent it is determined that any Utility Asset or portion of the City Facilities require a zoning certification, special exception or variance, each general purpose local government party hereto will endeavor in good faith to process and provide such zoning, special exceptions or variances without delay and prior to the Transfer Date.

(E) The real property and easement or property use rights to be conveyed to the Authority hereunder are in compliance with, and each respective party has not violated in connection with its ownership, use, maintenance, or operation of the City Facilities or the Utility Assets, applicable environmental, federal, state, county or local laws relating to pollution or protection of the environment, including but not limited to, the Comprehensive Environmental Response, Compensation., and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, and the Resource Conservation and Recovery Act. The County and the Cities affirm that they each have not knowingly authorized the placing or depositing of hazardous substances on the real estate and easements to be conveyed to the Authority except, if at all, in accordance with applicable law, and no party hereto has any actual knowledge of any

hazardous substance having been, or currently being, placed or deposited on said real property and easements except in a lawful manner.

(F) The County and the Cities affirmatively represent to the Authority that they have not been notified of any claims or disputes with respect to the City Facilities, respectively, or any Utility Assets.

ARTICLE VI

TRANSITION TO REGIONAL UTILITY AUTHORITY

SECTION 6.01. TRANSFER.

(A) Subject to the terms and provisions of this Agreement and for the consideration herein provided, the County and the Cities agree to and hereby grant, bargain, sell, convey, assign, transfer and vest unto the Authority the Utility Assets and, to the maximum extent permitted by law, the duty, obligation, authority, power and jurisdiction to operate and provide Utility Service within the incorporated and unincorporated areas of Franklin County, Florida identified in Appendix _____. On the Transfer Date and thereafter for the term of this Agreement, the Cities and the County hereby respectively obligate themselves and covenant not to compete with the Authority to provide, undertake, or exercise any right to provide Utility Services in the Service Area identified in Appendix A.

(B) On the Transfer Date, the County and the Cities shall respectively transfer to the Authority and the Authority shall accept the Utility Assets and be duly empowered to operate and provide Utility Service within Franklin County, Florida as provided herein.

(C) This Agreement shall not be construed to transfer any permitting or regulatory responsibility or duty to the Authority in conjunction with any municipal service benefit unit or dependent special district in existence on the effective date hereof.

SECTION 6.02. COVENANTS AND CONDITIONS PRECEDENT TO TRANSFER.

(A) At or prior to the transfer of any assets as may be provided for in this Agreement, the County and the Cities shall act to consider the public interest provisions of sections 125.3401 and 180.301, Florida Statutes.

(B) If any Authority Member is transferring Utility Assets to the Authority, as soon as reasonably practicable after the execution hereof, the Authority, together with the County and the Cities shall institute a joint proceeding pursuant to Chapter 75, Florida Statutes, for validation of the Acquisition Debt Obligations and the obligations provided for in this Agreement. In the event of any disagreement between the Authority and any other party hereto concerning the strategy or prosecution of the validation proceeding, the judgment of the Authority shall prevail. In such event, the Authority shall not issue any Acquisition Debt Obligations prior to validation of the Acquisition Debt Obligations by the applicable Circuit Court and either (1) the appeal period has expired without an appeal having been taken, or (2) any appeal has been resolved in favor of the Authority, the County and the City.

SECTION 6.03. CONSIDERATION FOR TRANSFER. As consideration for the

transfer of Utility Assets from the Cities, the authorization to operate and provide Utility Service as provided herein, and each general purpose local governments' respective covenants and obligations hereunder, the Authority shall, subject to the provisions hereof, issue its Acquisition Debt Obligations in an amount sufficient to fund the Acquisition Cost on the Transfer Date and assume, if permitted by the Department of Environmental Protection, any state revolving loan funds and other indebtedness secured by the County or Cities which remain outstanding as of the Transfer Date.

SECTION 6.04. RECOGNITION OF CONTRIBUTIONS AND OUTSTANDING LIABILITIES.

(A) The Cities, at the time of initial execution of this Agreement, own and operate water and wastewater treatment, transmission, distribution and collection systems and associated facilities within both incorporated and unincorporated areas of Franklin County. The parties hereto expressly acknowledge and affirm that the Cities have outstanding bonds and other indebtedness associated with the City Facilities. As consideration for the transfer of any portion of the City Facilities to the Authority hereunder, the Authority shall pay to the Cities the City Debt Defeasance Amounts. The Cities agree that these funds to be paid by the Authority to the Cities shall be used to defease or otherwise pre-pay the Cities' debt obligations associated with City Facilities. The Cities shall cooperate with the County and the Authority's bond counsel in preparing appropriate documents as necessary to defease the Cities debt so as to permit the Cities to transfer the City Facilities to the Authority on the Transfer Date, as provided in this Agreement.

(B) The County, at the time of initial execution of this Agreement, possesses certain rights to provide water and wastewater services and has assisted certain entities within the County in the process of creating, financing, owning and operating water and wastewater systems to serve portions of the County. The parties also recognize that the County possesses significant and positive rights or opportunities to acquire, or greatly assist the Authority in acquiring additional water and wastewater systems in the County. As consideration for the transfer of any County Facilities as may be transferred to the Authority hereunder, the Authority shall pay to the County the County Debt Defeasance

Amount. The County agrees that these funds to be paid by the Authority to the County shall be used to defease or otherwise pre-pay the County's debt obligations associated with County Facilities. The County shall cooperate with the Cities and the Authority's bond counsel in preparing appropriate documents as necessary to defease the County's debt so as to permit the County to transfer the County Facilities to the Authority on the Transfer Date as provided in this Agreement.

SECTION 6.05. RATE COVENANT.

(A) The Authority shall fix, establish and maintain such rates, fees, and charges, and collect such rates, fees and other charges for the product, services and facilities of the Utility System, or any other utility system hereafter acquired by the Authority, and revise the same from time to time, whenever necessary, so that such rates, fees and charges will always provide revenues adequate at all times to pay in each Fiscal Year debt service or other obligations associated with any Debt Obligations or Financing Documents, including all reasonable operational, renewal, repair, replacement and maintenance costs. Such rates, fees or other charges shall not be so reduced so as to be insufficient to provide, subject to the terms and conditions hereof, full and timely payment of the foregoing obligations in any Fiscal Year. The wholesale monthly rates for Utility Services charged to Authority Members shall be uniform and applied in a non-discriminatory manner.

(B) If, in any Fiscal Year, the Authority shall fail to comply with the requirements contained in this Section, it shall immediately retain and cause a rate consultant to review its rates, fees, charges, income, gross revenues, operating expenses

and methods of operation and to make written recommendations as to the methods by which the Authority may promptly seek to comply with the requirements set forth in this Section. The Authority shall forthwith commence to implement such recommendations to the extent required so as to cause it thereafter to comply with the foregoing rate covenant.

(C) On an annual basis, the Authority shall certify to the County and the Cities as follows:

(1) that the Authority has budgeted revenues from the Utility System to pay debt service and all required reserves for all Debt Obligations, and otherwise comply with any Financing Documents or any obligations of the Authority hereunder; and

(2) that revenues are reasonably anticipated to be available from the Utility System to maintain the Utility System and all portions thereof in good condition so that the Authority can operate or cause to be operated the same in an efficient and economical manner, making or causing to be made such expenditures for equipment and for renewals, repairs and replacements as may be proper for the economical operation thereof.

(D) The Board may appoint the General Manager, a Director, committee of Directors, and/or a special master to conduct the public hearing or hearings on its behalf relating to rates, fees and charges. The General Manager, Director, committee of Directors and/or designated special master shall act as hearing officers and report to the Board its finds relating to such public hearings. Only the Board may set or revise rates, fees and charges.

(E) No public hearing shall be required for adoption by the Board of a periodic automatic indexing factor applicable to the initial or any revised schedule of rates, fees and charges.

ARTICLE VII

IMPLEMENTATION PLAN

SECTION 7.01. DEVELOPMENT OF IMPLEMENTATION PLAN.

(A) Within ninety (90) days of entering into this Agreement, the County and Cities agree to and shall use their abilities and resources to develop, prepare and deliver an implementation plan relating to the administrative and operational aspects of the Authority's operations.

(B) It is the express intention of the parties to use the existing capabilities and resources of the County and the Cities in such manner as is prudent and cost-effective to transition the Utility Assets, Utility System and Utility Service to the Authority and any implementation plan developed and prepared by the County and Cities shall be reasonably reflective of such policy direction.

SECTION 7.02. COSTS AND FEES ASSOCIATED WITH DEVELOPING IMPLEMENTATION PLAN. The Authority shall pay, or respectively reimburse the County and Cities if already paid, from proceeds of the Acquisition Debt Obligations: (1) the actual and verifiable costs advanced or expended by the County and Cities to develop, prepare and implement any plan required herein through the Transfer Date, and (2) any actual and verifiable costs advanced or expended by the County or the Cities

to assist the Authority in the transition of the Utility System or in otherwise providing Utility Service.

ARTICLE III

CONVEYANCE OF THE UTILITY ASSETS

SECTION 8.01. DEVELOPING INVENTORY.

(A) As soon as reasonably practicable after execution hereof, the County and the Cities shall timely cooperate with the Authority in more fully identifying the Utility Assets.

(B) The County and the Cities have the ability and the resources, and so covenant, to prepare, complete and deliver to the Authority within sixty (60) days of entering into this Agreement the following schedules without undue qualification as to any Utility Assets to be transferred to the Authority:

(1) A schedule providing a complete legal description or recording references of all real property owned and used in the operation of the Utility Assets or in providing Utility Service.

(2) A schedule identifying all unplatted Easements known and available to either the County or the Cities which are used or available for use in connection with the Utility Assets or in providing Utility Service. Such schedule will include legal descriptions or recording references which will allow for subsequent location and title searches.

(3) A schedule of all plans and specifications in possession of the County and the Cities which substantially describes the Utility Assets to be transferred.

(4) A schedule of all existing third party warranties that relate to completed or in progress construction or the Utility Assets.

(5) A schedule of all current or active permits, applications or other documents, together with effective dates and any expiration dates which authorize the operation of the Utility Assets by all applicable governmental authorities.

(6) A schedule of any available Utility System maps.

(7) An inventory of the equipment, vehicles, tools, parts, laboratory equipment, computer equipment, and other personal property used by the County and the Cities in connection with the operation of the Utility Assets or in providing Utility Service.

(8) A schedule of all operating and vendor contracts affecting the Utility Assets or the provision of Utility Service.

(9) A schedule of all executory reuse or effluent disposal agreements entered into by either the County or the Cities, or their predecessors, for the sale or reuse of effluent delivered through the Utility Assets or provided in conjunction with the Utility Service.

(10) A schedule of all existing executory agreements including any developer agreements entered into by either the County or the Cities, or their predecessors and owners or developers of real property for the provision of water or wastewater disposal services through the Utility Assets or in conjunction with providing Utility Service.

(11) A schedule, with respect to all executory agreements under which either the County or the Cities as the owner of the Utility Assets or in providing Utility Service has any continuing or outstanding water or wastewater service obligations (which shall be updated as of the Transfer Date), which shows the total number of (a)

contractual connections; (b) contractual connections paid for and not yet connected; and (c) contractual connections not yet paid for and not yet connected.

(12) A schedule of all other agreements entered into by the County or the Cities, their predecessors, or third parties which would be reasonably considered to materially affect or be an encumbrance upon the Utility Assets or otherwise materially affect the provision of Utility Service, including without limitation, any leasehold agreements or oral agreements, if any. If any oral agreements exist, they shall be so identified together with a narrative of the terms thereof.

(13) A schedule, description and estimate of all moneys, funds, accounts, or any other intangibles held under or pursuant to any Debt Obligations, indenture of trust, resolution, ordinance or other instrument by the County and the Cities, or any other third party, for the benefit of any ratepayers of the Utility System in connection with the financing or operation of the Utility Assets or providing Utility Service.

SECTION 8.02. CONVEYANCE DOCUMENTATION.

(A) On the Transfer Date, the County and the Cities shall execute and deliver, and the Authority shall accept, a fee simple deed, bill of sale and a transfer, assignment and assumption agreement together with any other necessary and reasonable documents to effect the conveyance of the Utility Assets.

(B) From time to time after closing, each party hereto shall, upon request to the other, execute, acknowledge and deliver, or shall cause to be executed, acknowledged and delivered, all such further acts, deeds, assignments, transfers or other documentation for (1) confirming or correcting title in the name of the Authority or perfecting undisputed possession by the Authority of the Utility Assets, including the

establishment of record of easements reasonably capable of enforcement by the Authority without resort to litigation or other extraordinary means for any water or wastewater utility facilities which are a part of the Utility Assets to be transferred to the Authority or (2) otherwise fulfilling the obligations of the parties hereunder.

SECTION 8.03. TRANSFER DATE. It is anticipated that the transactions contemplated by this Agreement will be closed on a mutually agreed upon date on or before_____, 2008. Time for closing may be extended by any party to no later than the last of the following: (A)_____, 2008, or (B) ninety (90) days following validation of Acquisition Debt Obligations and either (1) the appeal period has expired without an appeal having been taken, or (2) any appeal has been resolved in favor of the Authority, the County and the Cities. The closing shall be held at such place or offices convenient and mutually agreeable to the parties.

SECTION 8.04. TRANSFER OF PERMITS. It shall be the obligation and responsibility of each of the parties hereto to timely cooperate with the Authority to commence all requisite action to apply for and cause the transfer of all necessary permits and governmental approvals, including but not limited to the procedures referenced in Rule 62-4.120, Florida Administrative Code, 40 C.F.R. § 122.63(d) (1980) and 47 C.F.R. § 73 (1980) and shall use all reasonable efforts to obtain the timely transfer of such permits. Each party shall cooperate and provide all reasonably necessary assistance in this endeavor. Upon transfer, the Authority shall assume all obligations under the permits and governmental approvals necessary for continued operation of the Utility Assets transferred to the Authority.

SECTION 8.05. RISK OF LOSS. At all times prior to and through the Transfer Date, the County and the Cities shall self-insure or maintain adequate fire and extended insurance coverage for the cost of any repairs to their respective Utility System or Utility Assets that may be required by casualty damage. The risk of loss of their respective Utility System or Utility Assets prior to the Transfer Date shall fall upon the County and the Cities for their respective systems and assets. The risk of loss shall pass to the Authority on the Transfer Date.

ARTICLE IX

GENERAL PROVISIONS

SECTION 9.01. INTERLOCAL AGREEMENT PROVISIONS.

Portions of this Agreement constitute a joint exercise of power, privilege and authority by and among the Cities, the County and the Authority and shall be deemed to be an "interlocal agreement" within the meaning of the Florida Interlocal Cooperation Act of 1969, as amended. This Agreement shall be filed with the Clerk of the Circuit Court of Franklin County, Florida.

SECTION 9.02. CONTINUING DISCLOSURE OBLIGATIONS. The County and the Cities agree to cooperate with the Authority in the preparation of disclosure information relating to the Utility System, the Utility Assets or the provision of Utility Service for inclusion in any Authority bond offering documents or other indebtedness and will provide a certificate executed by an authorized officer of the County and the Cities, respectively, at the closing of bonds purchased in reliance upon such offering documents that, to the knowledge of such officer, the information does not contain any material misstatements or omissions.

SECTION 9.03. PAYMENT OF COSTS AND FEES OF COUNTY AND CITIES.

(A) Upon closing of the acquisition by the Authority of City Facilities, the Authority shall pay or respectively reimburse the County and the Cities, if already paid, from proceeds of the Acquisition Debt Obligations, the reasonable fees and disbursements of attorneys and other professionals retained by the County and the Cities or otherwise advanced by the County or the Cities, to assist with the negotiation,

preparation and implementation of this Agreement through the Transfer Date, and the Implementation Costs. Closing of the acquisition of the City Facilities by the Authority is a condition precedent to the Authority's obligation to make payments to the County and Cities in the amount and manner as may be identified in this Agreement.

SECTION 9.04. PROFESSIONAL FEES; COSTS.

(A) Except as expressly provided otherwise in this Agreement, each party shall be responsible for securing its own counsel for representation relative to the negotiation, preparation and implementation of this Agreement, and all other matters associated with the implementation or performance hereunder, unless otherwise specified herein; and, each party shall be responsible for the payment of the fees of its own attorneys, engineers, accountants and other professional advisors or consultants in connection therewith.

(B) In any litigation arising out of this Agreement, the prevailing party in such litigation shall, subject to the limitation imposed by section 768.28, Florida Statutes, be entitled to recover reasonable attorney's fees and costs.

SECTION 9.05. TERM OF AGREEMENT. The term of this Agreement shall commence as of the first of the month in which the last party hereto executes this Agreement, and shall continue for as long as the Authority continues to provide Utility Services. This Agreement may be terminated by law or at any time by a written agreement between the Cities and County; provided, however, that no termination shall impair the rights of any holders of Debt Obligations of the Authority.

SECTION 9.06. FAILURE OF PERFORMANCE.

(A) A breach of this Agreement shall mean a material failure to comply with any of the provisions of this Agreement. If any party breaches any obligation herein, then, upon receipt of written notice by the non-breaching party, the breaching party shall proceed diligently and in good faith to take all reasonable actions to cure such breach and shall continue to take all such actions until such breach is cured.

(B) Unless otherwise provided herein, the parties to this Agreement may proceed at law or in equity to enforce their rights under this Agreement.

SECTION 9.07. DISPUTE RESOLUTION.

(A) The parties agree to resolve any dispute related to the interpretation or performance of this Agreement in the manner described in this Section. Either party may initiate the dispute resolution process by providing written notice to the other party.

(B) After transmittal and receipt of a notice specifying the area or areas of disagreement, the parties agree to meet at reasonable times and places, as mutually agreed upon, to discuss the issues.

(C) If discussions among the parties fail to resolve the dispute within sixty (60) days of the notice described in subsection (A) hereof, the parties shall appoint a mutually acceptable neutral third party to act as a mediator. If the parties are unable to agree upon a mediator, any of the parties can request appointment of a mediator by the Chief Judge of the Circuit Court of Franklin County, Florida. The mediation contemplated by this subsection (C) is intended to be an informal and non-adversarial process with the objective of helping the parties reach a mutually acceptable and voluntary agreement. The decision-making shall rest solely with the parties. The

mediator shall assist the parties in identifying issues, fostering joint problem-solving, and exploring settlement alternatives. It is understood that any settlement may require approval of the County Commission of Franklin County, the City Commission of the City of ____, the City Commission of the City of _____ and the Board of Directors of the Authority.

(D) If the parties are unable to reach a mediated settlement within 120 days of the mediator's appointment, any party may terminate the settlement discussions by written notice to the other party. In such event, either party may initiate litigation within 120 days of the notice terminating the settlement discussions. Failure by the party initiating the dispute resolution procedure to commence litigation within the 120 day period shall be deemed to constitute an acceptance of the interpretation or performance of the other parties.

SECTION 9.08. AMENDMENTS AND WAIVERS. This Interlocal Agreement may be amended in writing at any time by the concurrence of all of the Directors present at a duly called meeting of the Authority and subsequent ratification by the governing body of each Authority Member. However, this Interlocal Agreement may not be amended so as to (A) permit any profits of the Authority to inure to the benefit of any private person, (B) permit the diversion or application of any of the moneys or other assets of the Authority for any purposes other than those specified herein, (C) adversely affect the tax-exempt status, if applicable, of interest on the Obligations, or (D) materially, adversely affect the security for any Obligations. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision of this Agreement, whether or not similar, unless

otherwise expressly provided. Each such amendment, supplement, modification or waiver of this Agreement shall be filed with the Clerk of the Circuit Court of Franklin County, Florida. Neither the failure nor any delay by any party hereto in exercising any right or power under this Agreement nor any course of dealing between or among the parties will operate as a waiver of such right or power, and no single or partial exercise of any such right or power will preclude any other or further exercise of such right or power or the exercise of any other right or power.

SECTION 9.09. DELEGATION OF DUTY. Nothing contained herein shall be deemed to authorize the delegation of any of the constitutional or statutory duties of the State or the Authority Members or any officers thereof.

SECTION 9.10. FILING. A copy of this Interlocal Agreement shall be filed with the Clerk of the Circuit Court in Franklin County.

SECTION 9.11. IMMUNITY.

(A) All of the privileges and immunities from liability and exemptions from laws, ordinances and rules which apply to the activity of officials, officers, agents or employees of the Authority Members shall apply to the officials, officers, agents or employees of the Authority when performing their respective functions and duties under the provisions of this Interlocal Agreement.

(B) The Authority Members intend to utilize sections 768.28 and 163.01(9)(c), Florida Statutes, other Florida Statutes and the common law governing sovereign immunity to the fullest extent possible. Pursuant to section 163.01(5)(o), Florida Statutes, Authority Members may not be held jointly liable for the torts of the officers or employees of the Authority, or any other tort attributable to the Authority, and that the

Authority alone shall be liable for any torts attributable to it or for torts of is officers, employees or agents, and then only to the extent of the waiver of sovereign immunity or limitation of liability as specified in section 768.28, Florida Statutes. The Authority Members intend that the Authority shall have all of the privileges and immunities from liability and exemptions from laws, ordinances, rules and common law which apply to the municipalities and counties of the State. Nothing in this Interlocal Agreement is intended to inure to the benefit of any third-party for the purpose of allowing any claim which would otherwise be barred under the doctrine of sovereign immunity or by operation of law.

SECTION 9.12. LIMITED LIABILITY. No Authority Member shall in any manner be obligated to pay any debts, obligations or liabilities arising as a result of any actions of the Authority, the Directors or any other agents, employees, officers or officials of the Authority, except to the extent otherwise mutually agreed upon, and neither the Authority, the Directors or any other agents, employees, officers or officials of the Authority have any authority or power to otherwise obligate any individual Authority Member in any manner.

SECTION 9.13. NOTICES.

(A) All notices, certificates or other communications hereunder shall be sufficiently given and shall be deemed given when hand delivered or mailed by registered or certified mail, postage prepaid, or sent by nationally recognized overnight courier (with delivery instructions for “next business day” service) to the parties at the following addresses:

Franklin County: Attention: County Manager

(with a separate copy sent to the County Attorney)

City of _____: Attention: City Manager
(with a separate copy sent to the City Attorney)

City of _____ Attention: City Manager
(with a separate copy sent to the City Attorney)

(B) Any of the parties may, by notice in writing given to the others, designate any further or different addresses to which subsequent notices, certificates or other communications shall be sent. Any notice shall be deemed given on the date such notice is delivered by hand (or facsimile transmission) or three days after the date mailed.

SECTION 9.14. BINDING EFFECT. To the extent provided herein, this Agreement shall be binding upon the parties, their respective successors and assigns and shall inure to the benefit of the parties, their respective successors and assigns.

SECTION 9.15. ASSIGNMENT. No assignment of this Agreement shall be made in whole or in part by any party without the express written consent of the other parties, which may be withheld in their sole discretion.

SECTION 9.16. SEVERABILITY. In the event any provision of this Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

SECTION 9.17. EXECUTION IN COUNTERPARTS. This Agreement may be simultaneously executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

SECTION 9.18. APPLICABLE LAW AND VENUE.

(A) This Agreement shall be governed by and construed in accordance with the laws of the State of Florida.

(B) Unless otherwise required by law or otherwise agreed to by all parties hereto, venue for any action or proceeding to construe or enforce the provisions of this Agreement shall be in the Circuit Court in and for Franklin County, Florida.

SECTION 9.19. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement among the parties pertaining to the subject matter hereof, and supercedes all prior and contemporaneous agreements, understandings, negotiations and discussions of the parties, whether oral or written, and there are no warranties, representations or other agreements among the parties in connection with the subject matter hereof, except as specifically set forth herein.

SECTION 9.20. EFFECTIVE DATE. Upon satisfaction of the condition precedent set forth in Section 7.01(D) of this Interlocal Agreement, this Agreement shall become effective on the later of (A) the dated date hereof or (B) the date the last initial Authority Member executes this Interlocal Agreement and the filing requirement of Section 10.01 is satisfied.

IN WITNESS WHEREOF, the County and the Cities have caused this Interlocal Agreement to be duly executed and entered into as of the _____ day of _____ 2008.

BOARD OF COUNTY COMMISSIONERS
OF FRANKLIN COUNTY, FLORIDA

By:

_____

Chairman

ATTEST: Date: _____, 2008

_____
Clerk

IN WITNESS WHEREOF, the County and the Cities have caused this Agreement to be duly executed and entered into as of the _____ day of _____ 2008.

THE CITY OF _____, FLORIDA

By:

_____
Mayor

Date: _____,2008

ATTEST:

_____
City Clerk

IN WITNESS WHEREOF, the County and the Cities have caused this Agreement to be duly executed and entered into as of the _____ day of _____ 2008.

THE CITY OF _____, FLORIDA

By:
_____
Mayor

Date: _____,2008

ATTEST:

_____
City Clerk

WHOLESALE WASTEWATER SERVICE AGREEMENT

THIS AGREEMENT is made and entered into this ____ of _____, 200___ by and between _____ (the "City"), a Florida municipal corporation, and Franklin County, (the "County").

RECITALS

1. The City is empowered to provide wastewater service within certain portions of Franklin County, Florida, and the parties desire that the City provide wholesale wastewater service for County residents located in the service area described in Exhibit "A."

2. The City and County both recognize the desirability and the need to provide wastewater treatment service in a manner which is both economical and consistent with the water conservation and management policy of the State of Florida.

3. Duplication of wastewater service facilities by the parties could result in needless and wasteful expenditures and wasted resources while the wholesale treatment of wastewater by the City on behalf of County and other utilities provides economies of scale and a more economical means of financing and operating an advanced wastewater treatment plant with the potential for disposal of effluent for irrigation and other recharge purposes.

4. In accordance with the foregoing objectives, the City and County wish to implement this Wholesale Wastewater Service Agreement ("Agreement").

5. Nothing contained herein is intended to prohibit persons or corporations from lawfully providing wastewater within Franklin County, Florida, subject to applicable state law including, but not limited to, the Franklin County Comprehensive Plan, as amended (hereafter "applicable law").

ACCORDINGLY, in consideration of the recitals, agreements, and mutual covenants contained herein, and other good and valuable consideration the receipt and sufficiency of which are acknowledged by the parties, the parties agree as follows:

SECTION 1. RECITALS. The above recitals are true and correct, and by this reference are incorporated into this Agreement.

SECTION 2. DEFINITIONS. The City and County agree that in construing this Agreement, the following words, phrases, and terms shall have the following meanings unless the context requires otherwise:

2.1. "Agreement" means this Wholesale Wastewater Service Agreement, as it may from time to time be amended.

2.2. "Connection Facilities" means those facilities including, but not limited to, force mains, pipes, lift stations, meters and appurtenant facilities that are necessary to convey wastewater from the County service territory/area to the Connection Point(s), as shown on Exhibit "B."

2.3. "Connection Point" means that location or locations, shown on Exhibit "C", attached hereto and incorporated herein by reference, on the City's wastewater collection system where the System shall be physically connected for the purpose of providing wholesale wastewater service.

2.4. "Customers" means and is confined to retail wastewater customers residing in the service area in Exhibit "A" whose wastewater is transported to the City's facilities for treatment.

2.5. "GPD" means gallons per day, annual average basis.

2.6. "System" means those wastewater collection facilities which convey raw wastewater from the Customers to the City's treatment and disposal facilities , the Connection Point, in accordance with all applicable governmental regulations.

SECTION 3. CITY AND COUNTY WASTEWATER SYSTEMS CONNECTION. Subject to the City's approval and to the terms, conditions, and procedures set forth in this Agreement, the City agrees to connect the System at the Connection Point and to provide wholesale wastewater service for the benefit of the County and its Customers. The terms, conditions, and procedures for connection are set forth below:

3.1. Bulk Wastewater Service. In accordance with this Agreement, the City shall accept, treat, and dispose of, in accordance with all applicable governmental regulations, approximately _____ gallons per day, annual average daily flow, of wastewater from the System.

3.2. Construction, Ownership and Maintenance of the Connection Facilities. Pursuant to the terms of this Agreement, the County shall design, obtain all necessary governmental approvals for and construct the Connection Facilities. The Connection Facilities shall be designed to the appropriate standards recommended by state and regional agencies and Franklin County. The County shall be solely responsible for future operation and maintenance of the Connection Facilities.

3.3. Bulk Service Rate. _____ shall pay to the City a wholesale service rate of _____ Dollars ($_____) per 1,000 gallons of wastewater treated. This rate, including any or all components thereof, may be adjusted upward or downward

from time to time in accordance with the City's rate-setting procedures, or those of any successor in interest. The City shall notify County at least ninety (90) days before imposing a rate different from the rate set forth herein.

3.4. Capital Facilities Charge. On the date of execution of this Agreement, ____ shall pay the City a Capital Facilities Charge of _____, based on _____Dollars per ERC for ____ ERC's of wastewater flow from the Customers.

3.5. Maintenance of Facilities within the County Service Territory. The County shall remain responsible for operation and maintenance of its System.

SECTION 4. SERVICE STANDARDS. The City and County agree to comply with all state, regional, and federal requirements and rules applicable to the provision of wastewater service to the public.

SECTION 5. DISCLAIMER OF THIRD PARTY BENEFICIARIES. This Agreement is solely for the benefit of the formal parties herein and no right or cause of action shall accrue upon or by reason hereof, to or for the benefit of any third party not a formal party hereto. Nothing in this Agreement expressed or implied is intended or shall be construed to confer upon or give any person or corporation other than the parties hereto any right, remedy or claim under or by reason of this Agreement or any provisions or conditions hereof.

SECTION 6. BINDING EFFECT. All of the provisions, representations, covenants and conditions herein contained shall inure to the sole benefit of and shall be binding upon the parties hereto and their respective representatives, successors and assigns.

SECTION 7. ASSIGNMENTS. Neither party shall have the right to independently assign all or any part of this Agreement, and the rights, duties, and obligations hereunder.

SECTION 8. NOTICE; PROPER FORM; DELIVERY. Any notice required or allowed to be delivered hereunder shall be in writing and shall be deemed to be delivered when (1) hand delivered or sent by facsimile transmission to the official hereinafter designated, or (2) upon receipt of such notice when deposited in United States mail, postage prepaid, certified mail, return receipt requested, addressed to a party at the address set forth opposite the party's name below, or at such other address as the party shall have specified by written notice to the other party delivered in accordance herewith:

The City:

_____:

The County

_____:

SECTION 9. SEVERABILITY. If any part of this Agreement is found invalid or unenforceable by any court, such invalidity or unenforceability shall not affect the other parts of this Agreement if the rights and obligations of the parties contained therein are not materially prejudiced and if the intentions of the parties can continue to be effected. To that end, this Agreement is declared severable.

SECTION 10. APPLICABLE LAW. This Agreement and the provisions contained herein shall be construed, controlled, and interpreted according to the laws of the State of Florida.

SECTION 11. DEFAULT; NOTICE; OPPORTUNITY TO CURE. Each of the parties hereto shall give the other party written notice of any defaults hereunder and shall allow the defaulting party thirty (30) days from the date of receipt to cure such defaults. The injured party, however, may agree for the defaulting party to have more than 30 days to cure. If the parties agree to a longer period of time to cure, the defaulting party must begin its agreed-upon cure within thirty (30) days after receipt of notice and proceed with reasonable diligence to remedy the default. Otherwise, the injured party may, without further notice, terminate this Agreement.

SECTION 12. ENTIRE AGREEMENT. This instrument constitutes the entire agreement between the parties and supersedes all previous discussions, understandings and agreements between the parties relating to the subject matter of this Agreement. Amendments to and waivers of the provisions herein may only be made by both parties in writing.

SECTION 13. RECOVERY OF COSTS AND FEES. In the event that either party is required to enforce this Agreement by court proceeding or otherwise, then the prevailing party shall be entitled to recover from the other party all costs incurred, including reasonable attorneys' fees, whether incurred before, during or after such court proceedings or on appeal.

SECTION 14. COSTS OF THIS TRANSACTION. Each party to this Agreement shall bear its own attorney's fees, engineering and accounting fees and all other costs incurred by it in preparation of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first above written.

Witnessed and approved as to form: **CITY OF _____**

_____
By:_____
Attorney for City of _____

Title: Mayor

ATTEST:

_____
City Clerk

STATE OF FLORIDA
COUNTY OF FRANKLIN

The foregoing instrument was acknowledged before me this ____ day of _____, 200____ by Mayor of the City of _____. He/she is personally known to me or has produced _____ as identification.

_____
Signature of person taking acknowledgment

_____
Name of acknowledger typed, printed or stamped

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first above written.

Witnessed and approved as to Form:

FRANKLIN COUNTY BOARD OF COUNTY COMMISSIONERS

_____
Attorney For FRANKLIN County

By:_____

Title: Chair

ATTEST:

_____
Clerk of FRANKLIN County

STATE OF FLORIDA
COUNTY OF FRANKLIN

The foregoing instrument was acknowledged before me this ____ day of _____, 200____ by _____ as Chair of the FRANKLIN County Board of County Commissioners. He is personally known to me or has produced _____ as identification.

_____
Signature of person taking acknowledgment

_____
Name of acknowledger typed, printed or stamped

EMERGENCY INTERCONNECTION AGREEMENT

THIS EMERGENCY INTERCONNECTION AGREEMENT (hereinafter referred to as the "Agreement"), made and entered into this _____ day of _____, 200___; by and between _____, a municipal corporation and _____, a cooperative established pursuant to Chapter 425, Florida Statutes.

WITNESSETH

RECITALS. _____ owns and operates a water system that furnishes water service to customers in _____, Franklin County, Florida (hereinafter referred to as the "_____ System"). _____ owns and operates a water system that provides water service to customers in _____, Franklin County, Florida (hereinafter referred to as the "_____ System"). The parties desire to establish one or more points of interconnection between the _____ Water System and _____Water System for the purpose of insuring that the customers of their respective water systems have a constant supply of water in the event of emergency conditions that otherwise would result in an interruption of the water service provided to customers. Accordingly, _____ and _____ wish to enter into this Agreement to provide for the interconnection of their water systems for use on an emergency basis.

NOW, THEREFORE, in consideration of the mutual undertakings and covenants herein contained and assumed, and other good and valuable consideration, receipt of which is hereby acknowledged, _____ and _____ hereby covenant and agree as follows:

1. Definitions. For all purposes connected with the operation and construction of this Agreement, the following definitions shall be applicable:

(a) "Emergency conditions" shall refer to temporary operating conditions affecting either party's water system due to which the system's water output is reduced to the extent that the health and safety of the customers served by the system is threatened, service is interrupted for a period of time in excess of two (2) hours, or static water pressures in the system decreases to less than 20 pounds per square inch as a result of equipment failure, planned outages for necessary maintenance, interruption in supply or any other circumstances outside the reasonable control of the system's owner,

(b) "Point of interconnection" shall refer to each and every location on the existing water systems of _____ and _____ at which the emergency interconnection facilities provided for by this Agreement are or shall be tied in, connected to or otherwise joined with the existing water systems.

(c) "Emergency interconnection facilities" shall refer to any and all water lines, mains, meters, couplings, valves, pumps and other appurtenant equipment constructed, installed and positioned so as to constitute all or part of the transmission system whereby water may be pumped or otherwise forced during the existence of emergency conditions as defined in this Agreement,

(d) "Affected system" shall refer to the water system for which emergency conditions exist during a period of time to which the provision of this Agreement applies.

(e) "Emergency needs" shall refer to the additional volume of water from outside sources required by an affected system during the existence of emergency conditions, as defined herein.

2. Duration of Agreement. This Agreement shall remain in full force and effect until such time as _____ or _____ shall give the other party two year's notice of its intention to terminate this Agreement. Such notice shall be in writing and shall be sent by registered or certified mail, return receipt requested, to the party entitled to such notice at the address specified in section 13 of this Agreement.

3. Construction of Emergency Interconnection Facilities. _____ shall bear the responsibility for the bidding, design, permitting and construction of the emergency interconnection facilities. The parties shall share equally in the expense to bid, design, permit and construct all emergency interconnection facilities, including, without limitation, a water main, water meter, cut-off valves and related equipment.

4. Operation of Emergency Interconnection Facilities. During the existence of emergency conditions as defined in this Agreement, the affected system shall be entitled by means of the emergency interconnection facilities to consume an amount of water sufficient to meet its emergency needs. The volume of water through the emergency interconnection facilities shall be subject to limitation by the supplying utility system, in the event the supplying utility system, in its sole judgment, cannot provide the necessary volume of water without substantially reducing water utility service to its own customers. Prior to its commencement of usage of water from the supplying utility system, the affected system shall inform the supplying utility system by telephone of its intention to commence such usage and the approximate time at which such usage will commence.

5. Right of Inspection and Approval. Prior to _____ commencing construction of the emergency interconnection facilities, _____ shall have and retain at all times a right, but not a duty, of prior and continuing inspection and approval with respect to the following items, but _____ shall neither delay such inspection nor withhold such inspection arbitrarily or unnecessarily:

(a) The location of the point of interconnection, as defined herein;

(b) Engineering design, plans and specifications for the emergency interconnection facilities, which design, plans and specifications shall be reviewed and approved in writing by _____'s engineer prior to _____ undertaking any construction;

(c) Construction methods and materials used for the installation of the emergency interconnection facilities;

(d) Installation of couplings, valves, meters and other equipment appurtenant to the emergency interconnection facilities; and

(e) Inspection and testing of the emergency interconnection facilities as installed.

6. Water Service Charges, For each unit of water used and metered through the emergency interconnection facilities, the affected system shall pay to the supplying utility an amount computed on the basis of the actual water usage at the normal and usual rates for general service (commercial) customers. Within sixty (60) days of receipt, the affected system shall make full payment on any bill or bills rendered by the supplying utility for water consumed by the affected system, as measured by the meter installed as part of the emergency interconnection facilities. All bills for this service shall be computed at the applicable rate in effect at the time the bill is rendered. The affected system shall be billed for its emergency water use on a monthly basis, or for longer periods of time as the parties may otherwise agree in writing from time-to-time hereafter. At no time shall either party impose a minimum monthly charge on the other. In the event the meter measuring the emergency water usage at the point of interconnection shall fail to properly register the actual water usage, the supplying utility shall render bills based on an estimated usage pursuant to the supplying utility's standard practices.

7. Maintenance. _____ shall own and maintain the emergency interconnection facilities in a state of good repair. Maintenance shall include, without limitation, inspections and tests of the emergency interconnection facilities in the same manner and frequency as _____ utilizes for its preventive and predictive maintenance program.

8. Default. Failure on the part of the affected system to pay any bill rendered by the other party within sixty (60) days of its receipt, actual or constructive, by the

affected system, or either party's failure to comply with any other terms and conditions of this Agreement in a timely manner, shall constitute a default under this Agreement. Upon such default, the supplying utility may terminate the emergency interconnection service upon providing sixty (60) days written notice and this Agreement and the emergency service shall be terminated.

9. General Conditions Precedent to Commencement of Service. Prior to _____ accepting _____'s installation of the emergency interconnection facilities, _____ shall comply with all terms of this Agreement and shall:

(a) Furnish to _____ a copy of a mylar sepia of the as-built drawings of the emergency interconnection facilities in a form acceptable to _____, showing specific locations of all facilities, including all mains, couplings, valves, meters, manholes, fittings and other appurtenant equipment constituting the emergency interconnection facilities.

(b) Furnish, in form and substance acceptable to _____, copies of all of the following items relating to the construction of the emergency interconnection facilities:

(i) all permits and governmental approvals granted or obtained by _____, its contractors, or agents;

(ii) engineer's certifications; and

(iii) as-built drawings certified by a Professional Engineer.

10. Force Majeure. With respect to the matters contemplated by this Agreement, neither party shall be liable or responsible to the other as a result of any injury to property or person, which injury was created by force majeure. The term "force majeure" as employed herein shall include acts of God, strikes, lockouts, or other industrial disturbances, acts of any public enemy, wars, blockades, riots, acts of the

armed forces, epidemics, delays by carriers, inability to obtain materials or right-of-way on reasonable terms, acts of public authorities, or other third parties, or any other causes whether or not of the same kind as enumerated herein.

11. Addresses for Notices and Other Communications. All communications made in connection with this Agreement shall be sent by hand or by registered or certified mail, return receipt requested, using the following addresses, unless such mailing addresses shall be changed by a notice in writing from one party to the other party:

(a) To _____.

(b) To _____.

12. Miscellaneous.

(a) This Agreement supersedes all previous agreements or representations, either verbal or written heretofore in effect between _____ and _____ and made with respect to the matters contained herein, and when duly executed constitutes the entire Agreement between the parties.

(b) This agreement was made and executed in two (2) original counterparts and shall be interpreted and construed according to the laws of the State of Florida.

(c) The headings and subheadings used throughout this Agreement are solely for the convenience of the parties, and the parties agree that the headings shall be disregarded in the construction of this Agreement.

(d) This Agreement shall inure to the benefit of and be binding upon the respective representatives, successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year first above written,

Signed, sealed and delivered in the presence of:

_____
_____

[Utility Provider]

_____
_____
As to _____

By:

_____

_____

[Utility Provider]

_____
_____
As to _____

By:

_____

STATE OF FLORIDA
COUNTY OF FRANKLIN

I HEREBY CERTIFY, that on this day, before me, an officer duly authorized to take acknowledgements, personally appeared _____, well known to me to be the person in whose name the foregoing instrument was executed, or who produced identification and that he/she severally acknowledges executing the same freely and voluntarily under authority duly vested in him/her.

WITNESS my hand and official seal this ____ day of _____ 2008.

_____
NOTARY PUBLIC

My Commission Expires:

STATE OF FLORIDA
COUNTY OF FRANKLIN

I HEREBY CERTIFY, that on this day, before me, an officer duly authorized to take acknowledgements, personally appeared _____, well known to me to be the person in whose name the foregoing instrument was executed, or who produced identification, and that he/she severally acknowledges executing the same freely and voluntarily under authority duly vested in him/her.

WITNESS my hand and official seal this ____ day of _____ 2008.

_____
NOTARY PUBLIC

My Commission Expires:

MUTUAL AID AGREEMENT FOR WATER/WASTEWATER

ARTICLE I. PURPOSE

The Water/Wastewater Mutual Aid Program was established to provide a method whereby water/wastewater utilities sustaining physical damage from natural or man made disasters could obtain emergency assistance, in the form of personnel, equipment, and materials and other associated services necessary, from other water/wastewater utilities. The purpose of this Agreement is to formally document such program.

ARTICLE II. DEFINITIONS

A. AGREEMENT -- The Water/Wastewater Mutual Aid Agreement. The original agreement and all signatory pages shall be kept at TREEO Center 3900 SW 63rd Blvd., Gainesville, FL 32608

B. PARTICIPATING UTILITY -- Any Water/Wastewater utility which executes this Mutual Aid Agreement.

C. DAMAGED UTILITY -- Any Participating Utility which sustains physical damage to its water/wastewater system due to a natural or manmade disaster and seeks assistance pursuant to this Agreement.

D. ASSISTING UTILITY -- Any Participating Utility which agrees to provide assistance to a Damaged Utility pursuant to this Agreement.

E. AUTHORIZED REPRESENTATIVE -- An employee of a Participating Utility authorized by that utility's governing board to request or offer assistance under the terms of this Agreement. (A list of the Authorized Representatives for each Participating Utility shall be attached to this Agreement as Appendix A.)

F. PERIOD OF ASSISTANCE -- The period of time beginning with the departure of any personnel of the Assisting Utility from any point for the purpose of traveling to the Damaged Utility in order to provide assistance and ending upon the return of all personnel of the Assisting Utility, after providing the assistance requested, to their residence or place of Work, whichever is first to occur.

G. SCHEDULE OF EQUIPMENT RATES -- The latest rates published by Federal

Emergency Management Agency under the response and recovery directorate applicable to major disasters and emergencies.

H. WORK OR WORK-RELATED PERIOD -- Any period of time in which either the personnel or equipment of the Assisting Utility are being used by the Damaged Utility to provide assistance. Specifically included within such period of time are rest breaks when the personnel of the Assisting Utility will return to active Work within a reasonable time. Also, included is mutually agreed upon rotation of personnel and equipment.

ARTICLE III. PROCEDURE

In the event that a particular utility becomes a Damaged Utility, the following procedure shall be followed:

A. The Damaged Utility shall contact the Authorized Representative of one or more of the participating utilities and provide them with the following information:

1. a general description of the damage sustained;
2. the part of the water/wastewater system for which assistance is needed;
3. the amount and type of personnel, equipment, materials and supplies needed and a reasonable estimate of the length of time they will be needed;
4. the present weather conditions and the forecast for the next twenty-four hours;
5. a specific time and place for a representative of the Damaged Utility to meet the personnel and equipment of the Assisting Utility; and
6. the identification of Work conditions and special constraints such as availability of fuel supplies, lodging/meal support, medical facilities, security, communications, etc.

B. When contacted by a Damaged Utility, the Authorized Representative of a Participating Utility shall assess his utility's situation to determine whether it is capable of providing assistance. No Participating Utility shall be under any obligation to provide assistance to a Damaged Utility. If the Authorized Representative determines that the Assisting Utility is capable of and willing to provide assistance, the Assisting Utility shall so notify the Authorized Representative of the Damaged Utility and providing the following information:

1. a complete description of the personnel, equipment and materials to be furnished to the Damaged Utility.
2. the estimated length of time the personnel, equipment and materials will be available;
3. the work experience and ability of the personnel and the capability of the equipment to be furnished
4. the name of the person or persons to be designated as supervisory personnel; and
5. the estimated time when the assistance provided will arrive at the location designated by the Authorized Representative of the Damaged Utility.

C. The personnel and equipment of the Assisting Utility shall remain, at all times, under the direct supervision and control of the designated supervisory personnel of the Assisting Utility. In instances where only equipment is provided by the Assisting Utility, the ownership of said equipment shall remain with the Assisting Utility and said equipment shall be returned to the Assisting Utility immediately upon request. Representatives of the Damaged Utility shall suggest Work assignments and schedules for the personnel of the Assisting Utility; however, the designated supervisory personnel of the Assisting Utility shall have the exclusive responsibility and authority for assigning Work and establishing Work schedules for the personnel of the Assisting Utility. The designated supervisory personnel shall maintain daily personnel time records and a log of equipment hours, be responsible for the operation and maintenance of the equipment furnished by the Assisting Utility, and report Work progress to the Damaged Utility.

D. The Damaged Utility shall have the responsibility of providing food and housing for the personnel of the Assisting Utility from the time of departure from their regularly scheduled Work location until the time of return to their regularly scheduled Work location. The food and shelter provided shall be subject to the approval of the supervisory personnel of the Assisting Utility. If not agreeable, food and shelter shall be provided and paid for as determined by mutual agreement.

E. The Damaged Utility shall have the responsibility of providing communications between the personnel of the Assisting Utility and the Damaged Utility.

ARTICLE IV. REIMBURSABLE EXPENSES

The terms and conditions governing reimbursement for any assistance provided under this Agreement shall be agreed to prior to the providing of such assistance and shall be in accordance with the following provisions:

A. PERSONNEL -- During the Period of Assistance, the Assisting Utility shall continue to pay its employees according to its then prevailing rules and regulations. The Damaged Utility shall reimburse the Assisting Utility for all direct and indirect payroll costs and expenses incurred during the Period of Assistance, including, but not limited to, employee pensions and benefits.

B. EQUIPMENT -- The Assisting Utility shall be reimbursed for the use of its equipment during the Period of Assistance according to the SCHEDULE OF EQUIPMENT RATES established and published by FEMA. If an Assisting Utility uses an alternate basis of rates for equipment listed on the FEMA Schedule of Equipment Rates it shall provide such rates to the Damaged Utility prior to providing assistance. Rates for equipment not referenced on the FEMA Schedule of Equipment Rates shall be developed based on actual recovery of costs.

C. MATERIALS AND SUPPLIES -- The Assisting Utility shall be reimbursed for all materials and supplies furnished by it and used or damaged during the Period of Assistance, unless such damage is caused by negligence of the Assisting Utility's personnel. The measure of reimbursement shall be the replacement cost of the materials and supplies used or damaged, plus ten (10) percent of such cost. In the alternative, the parties may agree that the Damaged Utility will replace, with a like kind and quality as determined by the Assisting Utility, the materials and supplies used or damaged.

D. PAYMENT -- Unless mutually agreed otherwise, the Assisting Utility should bill the requesting utility for all expenses not later than ninety (90) days following the Period of Assistance. The requesting utility shall pay the bill in full not later than forty-five (45) days following the billing date. Unpaid bills shall become delinquent upon the forty-fifth (45th) day following the billing date, and once delinquent shall accrue interest at the rate of prime plus two percent (2%) per annum as reported by the Wall Street Journal.

E. DISPUTED BILLINGS -- Those undisputed portions of a billing should be paid

under this payment plan. Only the disputed portions should be sent to arbitration under Article VI.

ARTICLE V. INSURANCE

Each Participating Utility shall bear the risk of its own actions, as it does with its day-to-day operations, and determine for itself what kinds of insurance, and in what amounts, it should carry. Nothing herein shall act or be construed as a waiver of any sovereign immunity or other exemption or limitation on liability that a Participating Utility may enjoy.

ARTICLE VI. ARBITRATION

All disputes between two or more participating utilities arising from participation in this Agreement, which cannot be settled through negotiation, shall be submitted to binding arbitration before a panel of three persons chosen from the members of this Mutual Aid Agreement which are participating utilities, excluding those members that are parties to the dispute.

Each party to the dispute shall choose one panel member and those panel members shall agree on one additional panel member.

The panel shall adopt rules of procedure and evidence, shall determine all issues in dispute by majority vote and shall assess damages. The decision of the panel shall be final and binding upon the parties to the dispute.

NOW, THEREFORE, in consideration of the covenants and obligations contained herein, the participating utility listed here, as a Participating Utility duly executes this Water/Wastewater Mutual Aid Agreement this _____ day of _____, 2007.

Water/Wastewater Utility Representative(s):

By: _____
Title: _____
_____
Please Print Name

By: _____
Title: _____
_____
Please Print Name

(Please note: Attach a copy of your FIaWARN registration form to this document when you submit it.)

City of Largo, Florida

Post Office Box 296, Largo, Florida 33779-0296

MEMO DATE: January 18, 2008

AGENDA DATE: January 22, 2008, Regular Meeting

PREPARED BY: Kimball R. Adams, CPA, Finance Director

TITLE: **ORDINANCE NO. 2008-15 - FIRST READING – AMENDING CODE CHAPTER 22, ARTICLE III - STORMWATER UTILITY**

BACKGROUND:

This memo requests approval of a stormwater utility fee increase to fund associated costs of the City's stormwater utility system. The last fee increase was implemented October 1, 2004; therefore, it has been more than three years since the last fee increase. This proposed fee increase is projected to be sufficient for a three year period (FY 2008-FY 2010) and will be effective for all bills mailed on or after April 1, 2008.

The proposed fee increase is related to several factors, including projected service enhancements, normal expenditure growth, and low stormwater fee revenue growth. Each of the service enhancements enable the City to comply with National Pollutant Discharge Elimination System (NPDES) permitting requirements and other State and Federal regulations. Service enhancements include:

- The addition of personnel and equipment (to improve maintenance of drainage areas with difficult access)
- More frequent street sweeping (to improve the quality of stormwater runoff)
- Enhanced treatment of stormwater runoff

A proposed 35% fee increase was discussed with the City Commission during adoption of the last Capital Improvement Program (CIP), which included projections of stormwater revenues, expenditures and capital projects over a six-year period. The proposed increase was also discussed with the City Commission during the FY 2008 budget process. After receiving City Commission direction, certain projects were moved to other years, which reduced projected expenditures during the three effective years of the proposed rate increase. After revising expenditure projections and changing the implementation date for the rate increase to April 1, 2008, the revised recommended revenue increase is 25%. Several rate increase alternatives are discussed later in this memo.

Stormwater revenue only increases when the City annexes new customers or when existing customers redevelop to higher levels of impervious surface. This results in normal revenue growth of typically 1% per year or less. The low growth of stormwater revenue cannot keep pace with normal expenditure growth and cannot provide additional revenue for service enhancements.

The current Stormwater Utility Fee is levied on the basis of an Equivalent Residential Unit (ERU), which is

based on an impervious surface of 2,257 square feet for an average single family residential dwelling unit. The current ERU fee is fixed at $3.57 per month, which means that all residential customers are charged $3.57 per month. Commercial customers are charged $3.57 per each ERU of impervious surface area per parcel, which varies according to each commercial customer.

Federal and State Stormwater Regulations

Community Development Department staff presented a status report on the City of Largo's stormwater management activities to the City Commission at the June 12, 2007, Work Session. The report included an update on the City's stormwater management program, which addresses flooding and water quality issues within the City. The report also highlighted current and future stormwater regulations. Stormwater quality improvements currently achieved through the City's Stormwater Program comply with Pinellas County's NPDES Permit, of which the City of Largo is a co-permittee. However, the permit requires the City of Largo to implement a number of projects and programs to further reduce stormwater pollutant levels, including additional public education, street sweeping, enhanced ditch and catch basin maintenance, and installation of additional stormwater treatment systems.

The United States Environmental Protection Agency (EPA) and Florida Department of Environmental Protection (FDEP) are in the process of implementing a Total Maximum Daily Loads (TMDL) program, which will limit the amount of pollutants that specific waterbodies can receive. Several waterbodies, such as Longbranch and Allen's Creek, will be affected by the TMDL regulations. The TMDL program will differ from the NPDES program by requiring reduction of specific pollutants impacting listed waterbodies. For example, Longbranch Creek is currently listed as an impaired waterbody due to fecal coliform levels. The TMDL regulations will require the City of Largo to identify sources of pollutants, distinguish between human derived and naturally occurring pollutants and reduce the human derived pollutant sources. The TMDL Regulation for Longbranch Creek and Allen's Creek are scheduled to be enacted in 2009 and 2010.

Revenue and Expenditure Projections

Since the City's Stormwater Utility Fee is a fixed fee for both residential and commercial customers, this revenue source does not grow relative to the existing customer base. Typical redevelopment activities involve vertical construction due to the built-out nature of the City. This does not generate additional stormwater revenue, because no additional impervious area is created.

The following table summarizes the Stormwater Utility Fund's projected revenues, expenditures and ending fund balance. Projections were developed during the last CIP process and updated during the FY 2008 budget process. Current projections include maintaining a fund balance of at least 10% of budgeted expenditures over the next 3 years. The projected fund balance is higher in the first year of the proposed fee increase, but the fund balance declines in years two and three of the three-year period.

	Stormwater Utility Fund – Projected Amounts (including proposed fee increase)		
	FY 2008	FY 2009	FY 2010
Revenue and Beginning Fund Balance	$4,214,000	$4,897,000	$4,654,000
Total Expenditures	3,595,000	4,368,000	4,229,000
Ending Fund Balance	$619,000	$529,000	$425,000

The following table summarizes projected Stormwater Utility Fund capital projects. All service enhancement projects are identified with an asterisk. All proposed capital projects have been evaluated and all projects have been deferred to the latest periods recommended by staff. The Stormwater Utility Fund does not construct major capital projects, due to funding restrictions. All major stormwater capital projects are paid for from the Local Option Sales Tax Fund.

	Approved CIP Projects ($ in thousands)		
	FY 2008	FY 2009	FY 2010
CD Dept. Technology Improvements	$0	$0	$12
TMDL Reduction Program (4)	0	75	0
Alum Facility Improvements (Nature Preserve)(4)	50	300	0
Lake Seminole Alum Project (1)(4)	87	430	510
Additional Street Sweeper (2)(4)	0	0	190
Articulating Excavator (3)(4)	275	0	0
Vehicle Replacement	230	320	152
Total	$642	$1,125	$864

(1) The Lake Seminole Alum project is a joint project with Pinellas County and the City of Seminole that will be partially funded by all three parties. Projected funding from the City of Seminole and Pinellas County over the next three years is approximately $600,000.

(2) The additional street sweeper requires an additional operator and associated operating costs ($50,000 annually) in order to maintain streets in newly annexed areas and shorten the monthly sweeping schedule for other areas of the City.

(3) The articulating excavator requires approximately $50,000 in annual operating costs, including an operator position.

(4) These projects enhance service

Fee Comparisons

The following table presents current stormwater fees for other jurisdictions in Pinellas County. These fees were obtained from the 2007 Florida Stormwater Utilities Survey.

Jurisdiction	ERU (Sq. Ft.)	Monthly Fee	Fee/1,000 Sq. Ft.
Clearwater	1,830	$9.91	$5.42
Dunedin	1,708	6.00	3.51
Gulfport	2,300	2.87	1.25
Madeira Beach	1,249	5.00	4.00
Oldsmar	2,550	3.00	1.18
Safety Harbor	1,865	3.50	1.88
St. Petersburg	2,719	6.40	2.35
Largo - current	2,257	3.57	1.58
Largo - proposed	2,257	4.45	1.97

Proposed Fee Restructuring

Currently, all residential customers pay fees based on one ERU per month; however, a Stormwater Utility fee restructuring is proposed for high-density residential property. High-density residential property is defined as, any lot or parcel of land developed and designated exclusively for high-density residential purposes, including multistory apartment buildings, and multistory condominiums. Based on an evaluation of impervious surface areas, it was determined that high-density customers have less average impervious surface area than other

residential customers, which indicates that high-density customers should pay less than one ERU per month.

High-density residential customers have less impervious surface area than other residential customers, primarily because of multi-storied structures. Since high-density structures are multi-storied, the impervious roof areas cover more than one floor. The lower impervious surface areas created by vertical construction are somewhat offset by larger parking areas; however, after evaluating several high-density developments, the average high-density residential impervious surface area was approximately 60% (0.6) of one ERU compared to the average for other residential customers.

Other Florida Stormwater Utility systems have adopted multi-tiered fee structures for certain customers, based on differences in the average ERU's per customer. Multi-tiered fee structures promote greater equity between customer types. The City of Largo has adopted a single-tier fee structure for all residential customers, regardless of whether customers are single-family residents or high-density residents. Single-tier fee structures do not promote equity between residential customer groups that exhibit different average impervious surface areas.

The effects of charging high-density residents at 0.6 ERU would result in an annual revenue decrease of approximately $250,000. Any reduction in revenue related to the assessment of less than one ERU for high-density residents would require a higher increase for other customers in order to maintain revenue neutrality. After evaluating several alternatives, a phase-in of the reduced ERU charge for high-density residents is proposed, beginning with an 80% factor (.80 of 1 ERU). The phase-in of the new fee structure will reduce the amount of revenue lost in the initial year by approximately $400,000. This is identical to the phase-in approach used for implementing the variable wastewater fee for residential customers several years ago. When the next rate increase is implemented (projected in FY 2011), it is recommended that high-density residential rates than be changed to a 60% factor (.60 of 1 ERU).

The following table presents three alternatives for implementing a Stormwater Utility fee increase. Alternative #1 includes adoption of a reduced high-density residential fee equivalent to 80% of an ERU, which means that the current monthly fee would remain the same for high-density residential customers. All other customer fees would increase. Alternative #2 includes adoption of a 60% ERU for high-density customers. Alternative #3 is based on an across-the-board increase for all customers in equivalent amounts. Staff recommends adopting Alternative #1.

Monthly Charge Per ERU *

	Current	Alt. #1 [1]	Alt. #2 [2]	Alt. #3 [3]
Residential Customers and Nonresidential Customers:				
Monthly fee per ERU	$3.57	$4.45	$4.65	$4.30
$ Increase		$0.88	$1.08	$0.73
% Increase		25%	30%	20%
High-density Residential Customers:				
Monthly fee per dwelling unit	$3.57	$3.57	$2.80	$4.30
$ Increase (decrease)		$0.00	$(0.77)	$0.73
% Increase (decrease)		0%	(22)%	20%

* All alternatives result in approximately the same total stormwater revenue over the three-year period (approximately $1.5 million).

[1] Fee for high-density residential customers equal to .80 of 1 ERU (Recommended)

[2] Fee for high-density residential customers equal to .60 of 1 ERU

[3] Fee for high-density residential customers equal to 1.0 ERU

A second fee structure change is also proposed for mixed-use properties, which are increasing within the City. Mixed-use property is defined as, any lot or parcel of land developed and designated that is not exclusively for nonresidential, residential or high-density residential purposes. Mixed-use developments include a combination of residential, commercial and/or high-density residential customers. It is proposed that mixed-use developments be charged based on actual impervious area, rather than charging the commercial portion based on impervious area and the residential portion based on dwelling units. This change will promote greater equity in the fee charged, because mixed-used properties will be charged based on actual impervious surface. This charge will also simplify administration of the fee, because the shared common areas and parking areas will not have to allocated between commercial and residential customers.

Service Level Adjustments

The proposed fee increase is based on the most recent projections of revenues and expenditures, including the continuation of existing service levels and enhancement of certain service levels. Expenditure projections have been made in accordance with the most recent estimates of useful lives for all vehicles and equipment, which means that all replacements have been deferred to the furthest period recommended by staff. Staff continually evaluates stormwater operations for efficiency improvements in order to reduce costs; however, many cost increases are beyond the City's control, such as the cost of fuel, insurance, and heightened State and Federal regulations, which mandate higher levels of stormwater treatment be provided by the City.

Staff does not recommend changing any adopted CIP projects; however, projected expenditures could be reduced if the City Commission desires to reduce stormwater service levels, as long as service level reductions do not fall below minimum State requirements.

OFFICE OF MANAGEMENT & BUDGET BACKGROUND:

Not Applicable

BUDGETARY IMPACT:

The proposed fee increase would generate total revenue of approximately $1.5 million during FY 2008, 2009 and 2010. If the fee increase is not approved, CIP projects listed must be reduced, deleted or moved to later years. Deletion or deferral of CIP projects will reduce service levels and will lower the quality of stormwater runoff in the City, which could affect the City's ability to meet minimum State and Federal requirements for the collection and treatment of stormwater runoff.

CONSEQUENT ACTION:

If the City Commission concurs with the proposed fee increase on first reading, a second reading and public hearing will be scheduled for the February 5, 2008, Regular City Commission meeting.

REVIEWED BY AND RECOMMENDATION:

The City Manager, Assistant City Managers, Public Works Director and Finance Director recommend implementing the proposed fee increase summarized under alternative #1, which includes implementation of a reduced ERU for high-density customers equivalent to .80 of one ERU and establishment of a mixed-use customer classification.

PREVIOUS ACTION:

The City Commission discussed the proposed fee increase and rate restructuring at the December 11, 2007, Work Session. The City Commission's consensus was to adopt alternative #1 ($4.45 per month), which includes a new structure fee for high-density residential customers (.80 of one ERU) and charging mixed-use customers based on actual impervious area (commercial fee structure).

POTENTIAL MOTION:

I MOVE TO APPROVE/DISAPPROVE ORDINANCE NO. 2008-15 ON FIRST READING AND SCHEDULE A SECOND READING AND PUBLIC HEARING ON FEBRUARY 5, 2008.

Attachment: Ordinance No. 2008-15

ORDINANCE NO. 2008-15

AN ORDINANCE OF THE CITY OF LARGO, FLORIDA, AMENDING CHAPTER 22, ARTICLE III ENTITLED STORMWATER UTILITY, REVISING THE FEE STRUCTURE TO ESTABLISH A HIGH DENSITY RESIDENTIAL CUSTOMER CLASSIFICATION AND A MIXED-USE CUSTOMER CLASSIFICATION; REVISING STORMWATER UTILITY FEES; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Largo has constructed, maintains and operates a stormwater management system in the interest of public health and safety; and

WHEREAS, a Stormwater Utility Fee was created as a financing mechanism to provide a stable and dedicated funding source to pay for routine operating costs and minor improvement projects of the City of Largo's stormwater management system; and

WHEREAS, it is appropriate to establish two additional customer classifications, including high-density residential and mixed-use; and

WHEREAS, an increase in the Stormwater Utility Fee is required to effectively maintain and operate the City of Largo's stormwater management system.

NOW, THEREFORE, THE CITY OF LARGO HEREBY ORDAINS:

SECTION 1. That Chapter 22, Article III entitled, “Stormwater Utility”, shall be amended to read as follows:

SECTION 22-68. SHORT TITLE.

This article shall be entitled "Stormwater Utility Ordinance of the City of Largo."

SECTION 22-69. PURPOSE AND INTENT.

It is necessary to provide stormwater drainage facilities and service throughout the city in order that the health, safety and welfare of the inhabitants of the city may be protected. It is the intent and purpose of this article to provide authority to levy fees against all owners, tenants or occupants whose property impacts stormwater management facilities or services, or who enjoy benefits therefrom, and provide the city with a rational means for establishment of such fees, and designate the proceeds for the construction and maintenance of improvements and facilities and the administration and provision of stormwater services.

SECTION 22-70. DEFINITIONS AND RULES OF CONSTRUCTION.

For the purpose of this article, the definitions contained in this section shall apply; words used in the singular shall include the plural, and the plural, the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary, the word "may" is permissive. Words not defined herein shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

1. *Developed property.* Property which has been altered from its natural state by clearing, excavation, change of grade or landscaping or by the addition of any improvements such as a building, structure or impervious surface. For new construction, a property shall be considered developed pursuant to this article upon issuance of a certificate of occupancy or upon completion of construction or final inspection if no such certificate is issued, or where construction is at least fifty (50) percent complete and construction is halted for a period of three (3) months.

2. *Director of public works.* The director of the department of public works or his designee.

3. *Equivalent residential unit (ERU).* The average impervious area in square feet of a residential unit within the city. For the purposes of this definition, one (1) ERU shall equal 2257 square feet. The value of one (1) ERU in square feet shall be set by the city commission.

4. *Nonresidential property.* Any lot or parcel of land not exclusively residential, as defined herein, including transient rentals such as hotels, motels and travel trailer parks~~.~~, but excluding mixed-use property, as defined herein.

5. *Residential property.* Any lot or parcel of land developed and designated exclusively for residential purposes, including single-family homes, manufactured homes, duplexes, triplexes, quadplexes, townhomes, single story apartment buildings and single story condominiums.

6. *High-density residential property.* Any lot or parcel of land developed and designated exclusively for high-density residential purposes, including multistory apartment buildings and multistory condominiums.

7. *Mixed-use property.* Any lot or parcel of land developed and that is not designated exclusively for nonresidential, residential or high-density residential purposes.

SECTION 22-71. FEE ESTABLISHED.

A stormwater utility fee is hereby established on all developed lots or parcels of land within the city.

SECTION 22-72. STORMWATER UTILITY RATES AND CHARGES.

The rate to be charged per ERU shall be four dollars and forty-five ~~three dollars and fifty-seven~~ cents per month ($4.45) ~~($3.57)~~. The rate shall be reviewed and, if necessary, adjusted annually in accordance with this article.

SECTION 22-73. FEE FOR RESIDENTIAL PROPERTY.

The fee imposed for residential properties shall be the rate for one (1) ERU multiplied by the number of individual dwelling units existing on the property [~~(~~ERU rate x number of dwelling units~~)~~].

SECTION 22-74. FEE FOR NONRESIDENTIAL PROPERTY AND MIXED-USE PROPERTY.

The fee imposed for nonresidential properties and mixed-use properties as defined herein shall be the rate for one (1) ERU multiplied by the numerical factor obtained by dividing the total impervious area of a nonresidential property or mixed-use property by the ERU [~~(~~ERU rate x (total impervious area/ERU square footage)]. The public works director shall be responsible for determination of the impervious area based on data supplied by the county property appraiser or by the property owner, tenant or developer if such information is unavailable. The director of public works may require additional information as necessary to make the determination.

SECTION 22-75. FEE FOR HIGH-DENSITY RESIDENTIAL PROPERTY.

The fee imposed for high-density residential properties shall be the rate for one (1) ERU multiplied by .80 (eighty percent) multiplied by the number of individual dwelling units existing on the property [(ERU rate x .80) x number of dwelling units].

SECTION 22-76~~75~~. MINIMUM FEE.

The minimum fee for any nonresidential parcel shall be equal to the rate for one (1) ERU.

SECTION 22-77~~76~~. BILLING AND PAYMENT; PENALTIES FOR NONPAYMENT.

Bills or statements for the stormwater utility fee shall be rendered bimonthly in accordance with the regular utility billing cycle by the finance department of the city for all properties subject to the fee. Bills shall be payable at the same time and in the same manner and subject to the same penalties as set forth for solid waste and wastewater service. Any unpaid stormwater utility fees shall constitute a lien against the property which shall be superior to all other liens on the property except liens for unpaid ad valorem taxes. This lien, and any other lien imposed under this chapter, when delinquent for more than sixty (60) days, may be foreclosed by the city in the manner provided by law for the foreclosure of mortgages on real property.

SECTION 22-78~~77~~. INCLUSION IN UTILITY BILL.

For properties normally receiving bimonthly utility bills of the other services, the stormwater utility fee shall be included in the bimonthly utility bill rendered to the established customer. At the discretion of the city finance director, fee waivers for short-term, inactive utility accounts accruing fees of five dollars ($5.00) or less in a six-month period may be made for purposes of administrative convenience.

SECTION 22-79~~78~~. BILL FOR PROPERTIES NOT SERVED WITH UTILITIES.

For properties not receiving monthly utility bills for other services, the bill or statement for the stormwater utility fee shall be sent to the owner of the property as determined from the tax rolls by the city. The finance department may render annual or semiannual billing on such properties if determined to be in the best interest of the city.

SECTION 22-80~~79~~. OWNER RESPONSIBLE FOR STORMWATER FEE.

The owner of a property is ultimately responsible for all fees established under this article.

SECTION 22-81~~80~~. REQUESTS FOR ADJUSTMENT; PROCEDURE.

All requests for adjustment of the stormwater utility fee shall be submitted to the director of public works. The director shall review each request as follows:

1. All requests shall be in writing and set forth in detail the grounds upon which relief is sought.

2. Adjustment requests made during the first calendar year that the fee is imposed shall be reviewed by the director of public works within ninety (90) days from the date of submission. Adjustments resulting from such requests shall be retroactive to the effective date of the fees imposed by this article.

3. All adjustment requests after the first calendar year that the fee is imposed shall be reviewed by the director of public works within four (4) months from the date of submission. Adjustments resulting from such requests shall be retroactive to the date of submission.

4. The owner or owner's designee requesting the adjustment may be required at his own expense, to provide supplemental information to the director of public works, including, but not limited to, survey data and engineering reports approved by either a registered professional land surveyor (R.P.L.S.) or professional engineer (P.E.). Failure to provide such information may result in denial of the adjustment request.

5. The director of public works shall provide the person requesting the adjustment with a written determination of the request within the time provided herein. Any adjustments shall be prorated bimonthly.

SECTION 22-82~~81~~. APPEALS.

All determinations of the director pursuant to section 22-80 may be appealed to an appeals board consisting of the city manager, the community development director, and the finance director, or their designees. Appeals must be filed with the public works director within thirty (30) days of issuance of the director's written determination. Appeals shall be heard within thirty (30) days of filing. In evaluating appeals, the appeals board shall be bound by the method of setting rates as set forth in this article. The decision of the board shall be final.

SECTION 22-83~~82~~. FINDINGS AS TO FEES; USE OF FUNDS; REVENUE FUND.

The fees authorized under this article are found to be reasonable and necessary to safeguard the public health, safety and welfare by providing for payment of the operation, maintenance, administration and capital improvements for existing and future stormwater facilities. All proceeds of this fee are deemed to be in payment for use of or benefit derived from the city stormwater drainage system. All stormwater drainage utility fees collected by the city shall be deposited in a special fund to be used for the sole and only purpose of paying the cost of construction, operation, administration and maintenance of the stormwater facilities of the city. The fees and charges shall not be used for general or other governmental or proprietary purposes of the city, except to pay for the equitable share of the cost of accounting, management and government of the utility. Other than as provided for herein, the fees and charges shall be used solely to pay for the cost of the operation, repair, maintenance, improvement, rehabilitation, replacement, design, engineering, right-of-way acquisition, and construction of public stormwater drainage facilities, and related costs.

SECTION 22-84~~83~~. CREDITS FOR PRIVATELY CONSTRUCTED AND MAINTAINED STORM WATER FACILITIES

1. Stormwater Utility Fee Credits.

   a. In order to encourage a reduction in stormwater runoff, improvement in the quality of stormwater runoff, and proper maintenance of permitted stormwater improvements by property owners, a credit against the Stormwater Utility Rate is authorized for those developed properties, other than owners of single-family residences and homeowner associations, that meet the standards and conditions set forth in this subsection.

   b. A 25% credit against a property owner's Stormwater Utility Rate will be provided if the property has a properly designed and maintained stormwater system. The system must have been permitted by the Southwest Florida Water Management District since December 31, 1984 and meet or exceed SWFWMD's and the City of Largo's standards at the time of permitting and construction. The system must be constructed, operated and maintained by a party other than the City. The system also must be on land owned by parties other than the City and upon which there are no drainage easements dedicated to the public for the purposes of drainage retention, flow mitigation, or stormwater pollution abatement. If the Public Works Director determines that the stormwater management system has not been, nor is currently being properly maintained as designed and permitted, or otherwise does not meet the requirements of this subsection, such credit shall be disallowed.

   c. The Division of Engineering Services shall be responsible for conducting on-site inspections, and such inspections shall focus on the structural integrity of the system; features such as outfall control structures; sediment sumps, slope erosion, underdrain/filtration systems, and sediment accumulation as compared to the system permit and design. Each property owner shall be responsible for maintaining the drainage system according to the permit during the applicable time period that the credit is provided.

   d. Property owners, or their authorized agents, are responsible to apply for a credit under this subsection by submitting a completed Stormwater Utility Rate Credit form to the Public Works

Director.

e. Property owners, or their authorized agents, of privately owned and maintained stormwater management systems must re-apply every thirty-six (36) months to retain the credit. Failure of the property owner or his agent to re-apply for the credit after the appropriate period terminates shall be cause for the City to revoke said credit.

f. A certification from a registered engineer that the system meets the requirements of this subsection and is operating as designed and permitted must be submitted with each initial application and each renewal application.

g. The City may inspect the system at any time during the time period for which the credit is granted. Owners of systems with deficiencies noted during an inspection shall be notified of the deficiency and shall be given ninety (90) days to bring the system into compliance with the permitted design. If, after ninety (90) days, the deficiencies remain, the owner shall be notified and the credits revoked for all properties served by the subject system. In order for a failed system to re-qualify for credits, certification from a registered engineer must be submitted demonstrating that the system again operates as designed and permitted, and the Public Works Director must determine that the system meets the standards and conditions of this subsection.

h. All vacant land separately taxed shall be exempt from the storm water utility fee.

Section 2. That it is the intention of the Largo City Commission that each provision hereof be considered severable, and, if any section, subsection, sentence, clause, or provision of this ordinance is held invalid, the remainder of the ordinance shall not be affected.

Section 3. That this ordinance shall take effect immediately upon its adoption.

APPROVED ON FIRST READING _____

PASSED AND ADOPTED ON
SECOND AND FINAL READING _____

_____
Mayor

ATTEST:

_____
City Clerk

REVIEWED AND APPROVED:

_____
City Attorney

Franklin County Critical Shoreline District Ordinance:

> Within 75 feet of the Waters and Wetlands of Franklin County neither onsite sewage disposal systems nor aerobic treatment systems shall be allowed. Within 75 feet to 150 feet of the Wetlands of Franklin County and in areas not served by a central wastewater system, aerobic treatment systems shall be required. Onsite sewage disposal systems and their associated absorption beds, including subsurface or mounds, shall be prohibited. Approval of aerobic treatment systems shall be determined by the following:
> (a) The County Health Officer shall determine from the information submitted by the applicant and all other pertinent available information that the proposed aerobic treatment system will not cause or contribute to violations of State Water Quality Standards listed in Chapter 17-3, F.A.C..
>
> (b) Prior to construction, the applicant shall apply for and receive an onsite sewage disposal permit pursuant to Sections 10D-6.43 and 10D-6.44, F.A.C..
>
> (c) The aerobic treatment system shall be designed and installed pursuant to Section 10D-6.54(2) and 10D-6.063(2)(d), F.A.C., except that all setbacks shall be pursuant to this ordinance.
>
> (d) A valid maintenance agreement pursuant to Sections 10D-6.54(2)(f) and 10D-6.063(2)(d), F.A.C., shall be required.
>
> (e) No aerobic treatment unit shall be serviced or repaired by a person or entity engaged in aerobic treatment unit maintenance until the service entity has obtained an annual written permit pursuant to Section 10D-6.063(2)(e), F.A.C..

For new development, aerobic systems only are permitted. Section 6-3 of the code, Minimum Standards for Development, specifies that

> Within 75 feet of the Waters and Wetlands of Franklin County neither onsite sewage disposal systems nor aerobic treatment systems shall be allowed. Within 75 feet to 150 feet of the Wetlands of Franklin County and in areas not served by a central wastewater system, aerobic treatment systems shall be required. Onsite sewage disposal systems and their associated absorption beds, including subsurface or mounds, shall be prohibited.[1]

[1] Franklin county has extant Ordinances which address Onsite Wastewater Treatment Systems, including: Septic Tank Ordinance: No. 79-8; Shoreline District Ordinance; Septic Tank Abatement Ordinance & HRS Rule 10D-6.

Sample Ordinance for St. George Island Regarding Aerobic Septic Systems

OBJECTIVE: Franklin County will implement mandatory requirements for design, inspections, operations, and maintenance of on-site wastewater treatment systems, specifically targeting a reduction in nutrient effluent.

Policy: Use of on-site wastewater treatment systems shall be limited to the following conditions:

a) The County shall amend its land development regulations within one year of the effective date of this plan amendment to provide that existing septic systems shall be replaced with aerobic septic systems which meet the NSF 245 standards for nitrogen reducing systems when the existing system fails or otherwise requires replacement, as determined by the Department of Health or by January 1, 2015, whichever comes first, anywhere on the island; "failure" here means "the system must be pumped out"

b) All existing and new septic systems shall be inspected yearly by a county health department official who will test the system's effluent for compliance with the NSF 245 standard every third year for residential and annually for commercial properties (as defined below)

c) One way to collect the fee is via an ad valorem charge that would be assessed to every septic system owner at the rate of $50 per annum for residential properties and $150 per annum for commercial properties (businesses with a license to sell food or alcohol to be consumed on the premises) to pay for the cost of testing. The Franklin County Health Department will test the septic effluent of commercial properties once per annum, and all other businesses and residential properties will have their effluent tested every third year.

d) The County Health Department Director shall evaluate systems that sustain unusually large influent amounts by comparing a three month average domestic water draw with a property's septic system design capacity. If the director

determines that the system’s use exceeds the system’s capacity, the director shall mandate a system size upgrade

FRANKLIN COUNTY, FLORIDA
WASTEWATER REQUIREMENTS
ORDINANCE NO. 11-18-08

An Ordinance for compliance with national system standards for NSF 245.

R E C I T A L S:

Whereas, the County has conducted studies that identify the need to protect Apalachicola Bay from water pollution;

Whereas, the County has undergone a thorough study of the needs to comply with national standards for wastewater treatment on St. George Island;

Whereas, the Conditions of St. George Island are not favorable for continued reliance on traditional septic systems because of sandy soil, a high water table, high density vs. space required for effluent processing, small lot sizes, and pattern of seasonal use which combine to pose a threat to the quality of water in the Bay;

Whereas, in light of these factors, the County acknowledges that these issues threaten the Bay and the associated Bay economy;

Whereas, national sanitary standard NSF 40 for septic systems has been augmented by NSF 245 to include standards for nitrogen treatment and testing;

NOW, THEREFORE, IN CONSIDERATION OF THE FOREGOING, FRANKLIN COUNTY BOARD OF COUNTY COMMISSIONERS ORDAINS AS FOLLOWS:

1. The County shall amend its land development regulations within one year of the effective date of this plan amendment to provide that existing septic systems shall be replaced with aerobic septic systems which meet the NSF 245 standards for nitrogen reducing systems when the existing system fails or otherwise requires replacement, as determined by the Department of Health or by January 1, 2015, whichever comes first, anywhere on the island; “failure” here means “the system must be pumped out”
2. All existing and new septic systems shall be inspected yearly by a county health department official who will test the system’s effluent for compliance with the NSF 245 standard every third year for residential and annually for commercial properties (as defined below)
3. An ad valorem charge shall be assessed to every septic system owner at the rate of $50 per annum for residential properties and $150 per annum for commercial properties (businesses with a license to sell food or alcohol to be consumed on the premises) to pay for the cost of testing. The Franklin County Health Department will test the septic effluent of commercial

properties once per annum, and all other businesses and residential properties will have their effluent tested every third year to ensure compliance with national standards.

4. The County Health Department Director shall evaluate systems that sustain unusually large influent amounts by comparing a three month average domestic water draw with a property's septic system design capacity. If the director determines that the system's use exceeds the system's capacity, the director shall mandate a system size upgrade
5. This ordinance is necessary for the immediate preservation of the health, safety, and public welfare of the Bay and St. George Island, because water in the area may be adversely affected.

This ordinance shall be effective upon the date of passage.

PASSED by the Board of County Commissioners this _____ day of _____, 2008.

_____
PRESIDENT
Attested to:

_____
Secretary