PORT ORANGE CITY COUNCIL WORKSHOP

Council Chambers

Tuesday, October 22, 2019 @ 6:30 PM

WORKSHOP AGENDA

Pursuant to Section 3.06 of the Charter of the City of Port Orange, the Mayor has called a **Workshop** of the City Council to be held for the following purposes:

OPENING

1. Silent Invocation
2. Pledge of Allegiance
3. Roll Call

DISCUSSION ITEMS

4. Recognition and Demonstration of the GIS product by Ashlee Malone and Melanie Schmotzer
5. PFM Discussion of Proposed Changes to Investment Policy
6. County Fire Services Overview on Consolidation

ADJOURNMENT

ANY PERSON WHO DECIDES TO APPEAL ANY DECISION MADE BY THE CITY COUNCIL WILL NEED A RECORD OF THE PROCEEDINGS, AND FOR SUCH PURPOSE HE OR SHE MAY NEED TO ENSURE AT HIS OR HER OWN EXPENSE FOR THE TAKING AND PREPARATION OF A VERBATIM RECORD OF ALL TESTIMONY AND EVIDENCE OF THE PROCEEDINGS UPON WHICH THE APPEAL IS TO BE BASED.

NOTE: IF YOU ARE A PERSON WITH A DISABILITY WHO NEEDS AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS PROCEEDING, YOU ARE ENTITLED, AT NO COST TO YOU, TO THE PROVISION OF CERTAIN ASSISTANCE. PLEASE CONTACT THE CITY CLERK FOR THE CITY OF PORT ORANGE, 1000 CITY CENTER CIRCLE, PORT ORANGE, FLORIDA 32129, TELEPHONE NUMBER 386-506-5563, CITYCLERK@PORT-ORANGE.ORG, AS FAR IN ADVANCE AS POSSIBLE, BUT PREFERABLY WITHIN 2 WORKING DAYS OF YOUR RECEIPT OF THIS NOTICE OR 5 DAYS PRIOR TO THE MEETING DATE. IF YOU ARE HEARING OR VOICE IMPAIRED, CONTACT THE RELAY OPERATOR AT 7-1-1 or 1-800-955-8771.

UPON REQUEST BY A QUALIFIED INDIVIDUAL WITH A DISABILITY, THIS DOCUMENT WILL BE MADE AVAILABLE IN AN ALTERNATE FORMAT. IF YOU NEED TO REQUEST THIS DOCUMENT IN AN ALTERNATE FORMAT, PLEASE CONTACT THE CITY CLERK WHOSE CONTACT INFORMATION IS PROVIDED ABOVE.

ANY INVOCATION THAT IS OFFERED BEFORE THE OFFICIAL START OF THE CITY COUNCIL MEETING SHALL BE THE VOLUNTARY OFFERING OF A PRIVATE PERSON, TO AND FOR THE BENEFIT OF THE CITY COUNCIL. THE VIEWS OR BELIEFS EXPRESSED BY THE INVOCATION SPEAKER HAVE NOT BEEN PREVIOUSLY REVIEWED OR APPROVED BY THE CITY COUNCIL OR THE CITY STAFF, AND THE CITY IS NOT ALLOWED BY LAW TO ENDORSE THE RELIGIOUS BELIEFS OR VIEWS OF THIS, OR ANY OTHER SPEAKER. PERSONS IN ATTENDANCE AT THE CITY COUNCIL MEETING ARE INVITED TO STAND DURING THE OPENING INVOCATION AND PLEDGE OF ALLEGIANCE.

HOWEVER, SUCH INVITATION SHALL NOT BE CONSTRUED AS A DEMAND, ORDER, OR ANY OTHER TYPE OF COMMAND. NO PERSON IN ATTENDANCE AT THE MEETING SHALL BE REQUIRED TO PARTICIPATE IN ANY OPENING INVOCATION THAT IS OFFERED. A PERSON MAY EXIT THE CITY COUNCIL CHAMBERS AND RETURN UPON COMPLETION OF THE OPENING INVOCATION IF A PERSON DOES NOT WISH TO PARTICIPATE IN OR WITNESS THE OPENING INVOCATION.

CITY COUNCIL AGENDA ITEM

REQUESTED COUNCIL MEETING DATE **10/22/2019**

Consent item: No

SUBJECT: (4) Recognition and Demonstration of the GIS product by Ashlee Malone and Melanie Schmotzer

DEPARTMENT: Administrative Services

GOAL:

RECOMMENDED MOTION:

SUMMARY: Development Activity Dashboard:

http://pogis.maps.arcgis.com/apps/opsdashboard/index.html#/3bf2fb9855284e7cab9d38dab12125b2

Project No.: Funding Account No.:

Presenter:

ATTACHMENTS:

Robin Fenwick	Created/Initiated - 10/7/2019
Jamie Miller	Approved - 10/7/2019
Tim Burman	Approved - 10/15/2019
Jake Johansson	Approved - 10/16/2019
Robin Fenwick	Final Approval - 10/17/2019

CITY COUNCIL AGENDA ITEM

REQUESTED COUNCIL MEETING DATE **10/22/2019**

Consent item: No

SUBJECT: (5) PFM Discussion of Proposed Changes to Investment Policy

DEPARTMENT: Finance

GOAL:

RECOMMENDED MOTION:

SUMMARY: PFM is proposing that the City consider amending the Investment Policy to allow for inves in "A" rated securities. The current policy limits investments in "AA" or above rated securities.

Over the last few years, the rating agencies have lowered the ratings of companies. Many of the forme rated have been moved to the "A" rating. Research has shown that the default risk related to an "A" ra investment is no greater that that of an "AA" rated investment.

The City has also provided PFM with a 3-year history of cash balances. PFM has analyzed this data a make a recommendation on cash balances that may be utilized in investments for a greater return.

PFM will present their analysis for the recommendations and address questions.

Project No.: Funding Account No.:

Presenter:

ATTACHMENTS:

1.	City of Port Orange Council Presentation	City of Port Orange Council Presentation.pdf
2.	City_of_Port_Orange_Draft_Investment_Policy_2019 10 22 v2	City_of_Port_Orange_Draft_Investment_Polic 10 22 v2.doc
3.	Investment Policy and Process Recommendations Memo	Investment Policy and Process Recommendat Memo.pdf

Scott Neils	Created/Initiated - 8/20/2019
Scott Neils	Approved - 8/20/2019
Jake Johansson	Approved - 8/22/2019
Robin Fenwick	Final Approval - 8/22/2019

City of Port Orange

Investment Program Review

October 22, 2019

Presented By Jason Human, Client Manager

PFM Asset
Management LLC

300 South Orange Ave,
Suite 1170
Orlando, FL 32801

407.648.2208
pfm.com

Challenges for the City

Protection from a declining interest rate environment

Diversification amongst corporate securities

Operational inefficiencies with current safekeeping bank relationship

Investment Policy Review

Investment Policy Review Framework

Florida Statutes

Association of Public Treasurers of US and Canada

GFOA Best Practices

Section 218.415 Florida Statutes Requirements

- Scope
- Investment Objectives
- Performance Measurement
- Prudence and Ethical Standards
- Listing of Authorized Investments
- Maturity and Liquidity Requirements
- Portfolio Composition
- Risk and Diversification
- Authorized Investment Institutions and Dealers
- Third-Party Custodial Agreements
- Master Repurchase Agreement
- Bid Requirement
- Internal Controls
- Continuing Education
- Reporting

The City's Investment Policy contains all of the required sections per Section 218.415, Florida Statutes

APT US & C* Investment Policy Requirements

- Policy/Purpose
- Scope
- Prudence
- Objective (Safety, Liquidity, Yield)
- Delegation of Authority
- Ethics and Conflict of Interest
- Authorized Financial Dealers and Institutions
- Authorized & Suitable Investments
- Investment Pools/Mutual Fund Questionnaire
- Collateralization
- Safekeeping and Custody
- Diversification
- Maximum Maturities
- Internal Control
- Performance Standards
- Reporting
- Investment Policy Adoption
- Glossary

The City's Investment Policy contains all of the required sections necessary to be certified by the APT US & C

*Association of Public Treasurers of the United States and Canada (APT US & C)

GFOA Investment Policy Best Practices

- Scope and investment objectives
- Roles, responsibilities, and standards of care
- Suitable and authorized investments
- Investment diversification
- Safekeeping, custody, and internal controls
- Authorized financial institutions, depositories, and broker/dealers
- Risk and performance standards
- Reporting and disclosure standards

The City's Investment Policy contains all of the GFOA's best practice recommendations

Investment Policy Recommendations

1. The City's existing policy contains all of the necessary sections to comply with Section 218.415, Florida Statutes, GFOA Best Practices and the APT US & C.

2. Broaden the allowable Corporate Note investments by allowing A or better by one National Recognized Statistical Rating Organization.

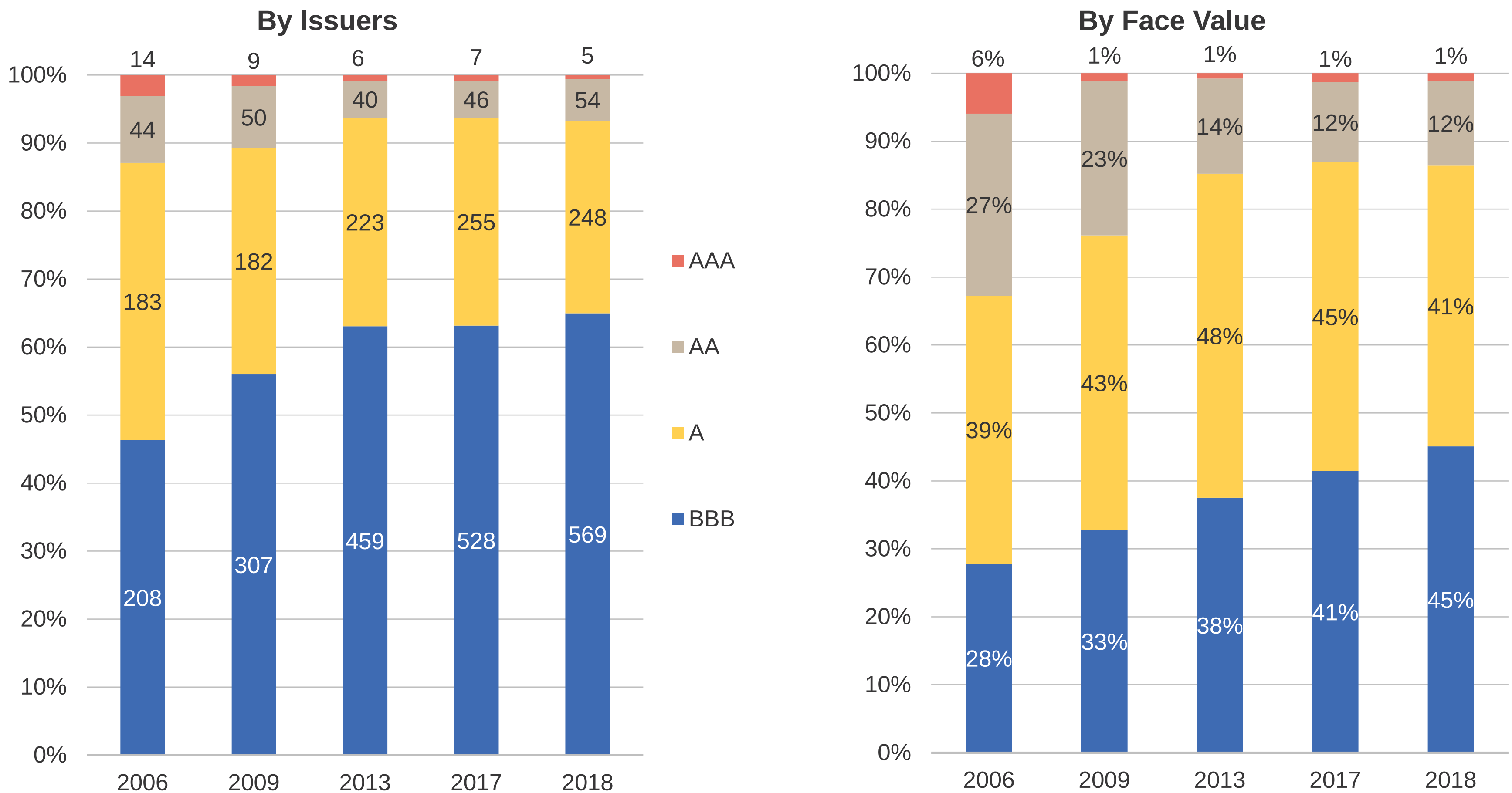
Diversification by Industry

Composition of the Corporate Universe				
	Financial	**Industrial**	**Utilities**	**Total**
AAA	0.2%	0.9%	0.0%	1.1%
AA	7.1%	5.2%	0.2%	12.5%
A	22.3%	17.1%	2.0%	41.4%
BBB	8.6%	33.6%	2.8%	45.0%
Total	38.2%	56.8%	4.9%	100%

Source: BofA Merrill Lynch 1-5 Year U.S. Corporate Index by face value, as of January 2019 universe.

Corporate Ratings Landscape Continues to Evolve

Composition of Merrill Lynch 1-5 Year Corporate Index



Source: BofA Merrill Lynch Indices composite ratings.

A Rated Representative Issuer List

Top 10 Issuers	# of Issues	Amount Outstanding (millions)	% of Corp Index	Moody's	S&P	Fitch
J.P. Morgan Chase	22	$50,900	1.99%	A2	A-	AA-
Bank of America	21	$43,569	1.69%	A2	A-	A+
Goldman Sachs	17	$38,350	1.50%	A3	BBB+	A
Morgan Stanley	13	$31,082	1.22%	A3	BBB+	A
Wells Fargo	12	$30,100	1.16%	A2	A-	A+
Citigroup	15	$27,582	1.07%	A3	BBB+	A
HSBC	10	$20,900	0.82%	A2	A	AA-
Oracle	8	$16,494	0.63%	A1	AA-	A
Daimler Finance	17	$15,575	0.60%	A2	A	A-
BNY Mellon	14	$13,900	0.54%	A1	A	AA-

Representative list for informational purposes only; not an investment recommendation.
Source: BofA Merrill Lynch 1-5 Year U.S. Corporate Index, as of January 2019 universe.

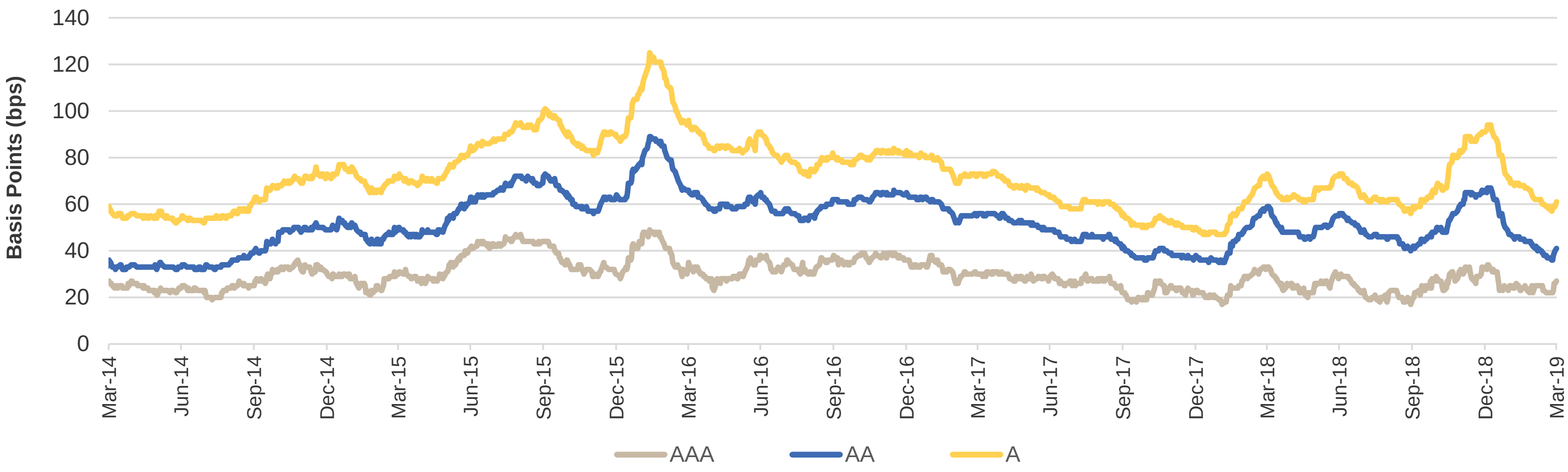
Corporate Sector Considerations: Historical Performance

- While spreads in the corporate sector are dependent on market conditions, investors are compensated in the form of additional yield based on perceived credit quality
- This additional yield provides additional return, and helps to support portfolio growth

Annualized Performance

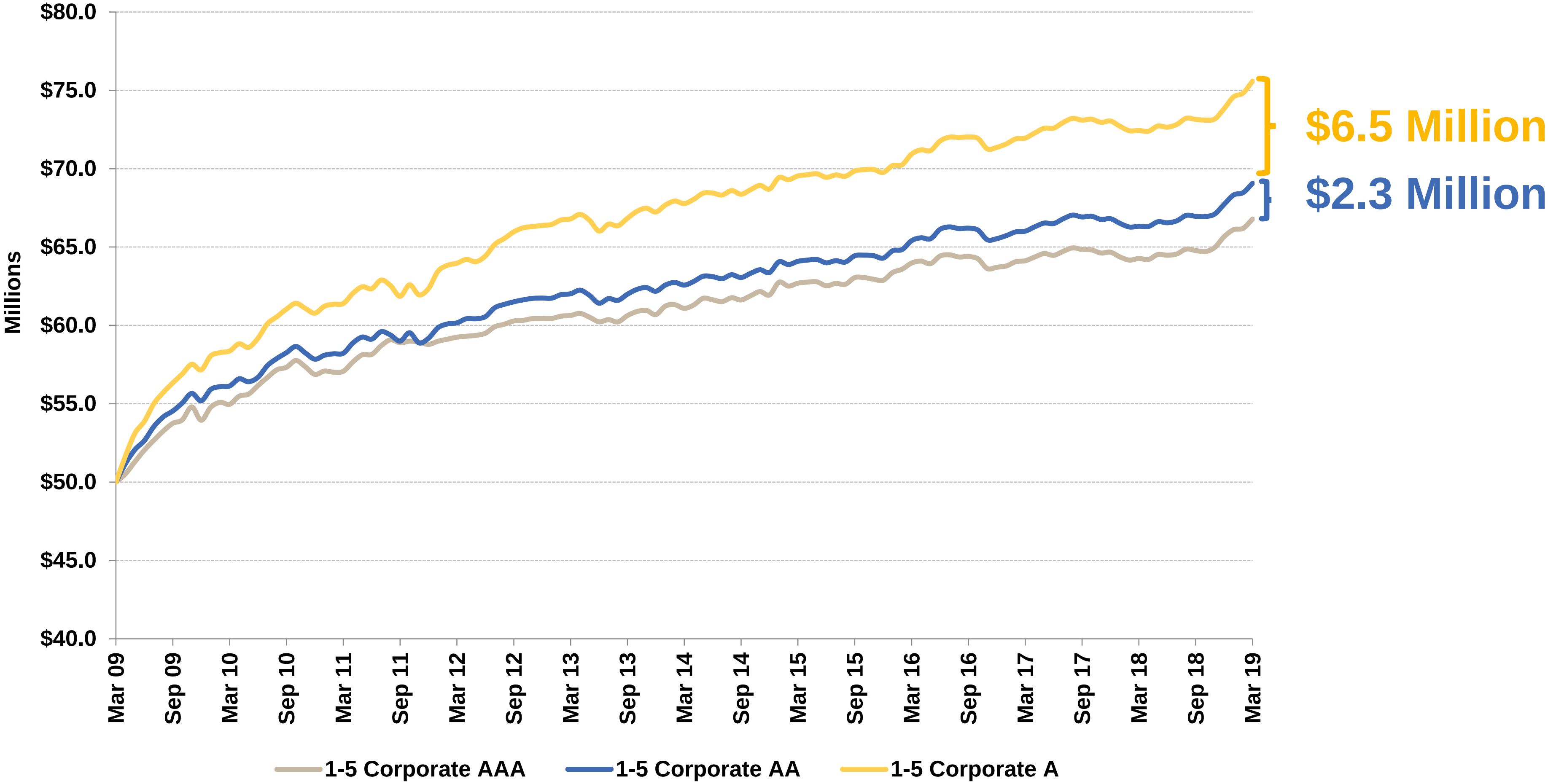
	YTD	1 Year	3 Year	5 Year	10 Year
AAA	1.71%	3.91%	1.44%	1.80%	2.94%
AA	1.98%	4.14%	1.83%	2.00%	3.28%
A	2.37%	4.34%	2.14%	2.20%	4.22%

US Investment Grade Corporate OAS Spread



Performance for AAA, AA, and A derived from ICE BofAML 1-5 Year Indices as of 3/31/2019. Source: Bloomberg

Growth of $50 million in AAA, AA, & A Corporate Indexes



Performance for AAA, AA, and A derived from ICE BofAML 1-5 Year Indices as of 3/31/2019. Source: Bloomberg

Letter Rating Migration Rates

2018 One-Year Letter Rating Migration Rates										
From\To:	Aaa	Aa	A	Baa	Ba	B	Caa	Ca-C	Default	WR
Aaa	92.5%	3.8%	-	-	-	-	-	-	-	3.8%
Aa	-	93.8%	3.5%	-	-	-	-	-	-	2.7%
A	-	3.3%	89.4%	3.7%	0.1%	-	-	-	-	3.5%
Baa	-	-	3.4%	90.9%	1.3%	-	0.1%	-	-	4.4%
Ba	-	-	-	6.6%	79.0%	5.2%	0.3%	-	-	8.8%
B	-	-	-	-	5.3%	77.7%	4.3%	0.1%	0.5%	12.2%
Caa	-	-	-	-	0.2%	4.8%	74.3%	1.6%	3.0%	16.2%
Ca-C	-	-	-	-	-	-	15.3%	41.2%	29.4%	14.1%

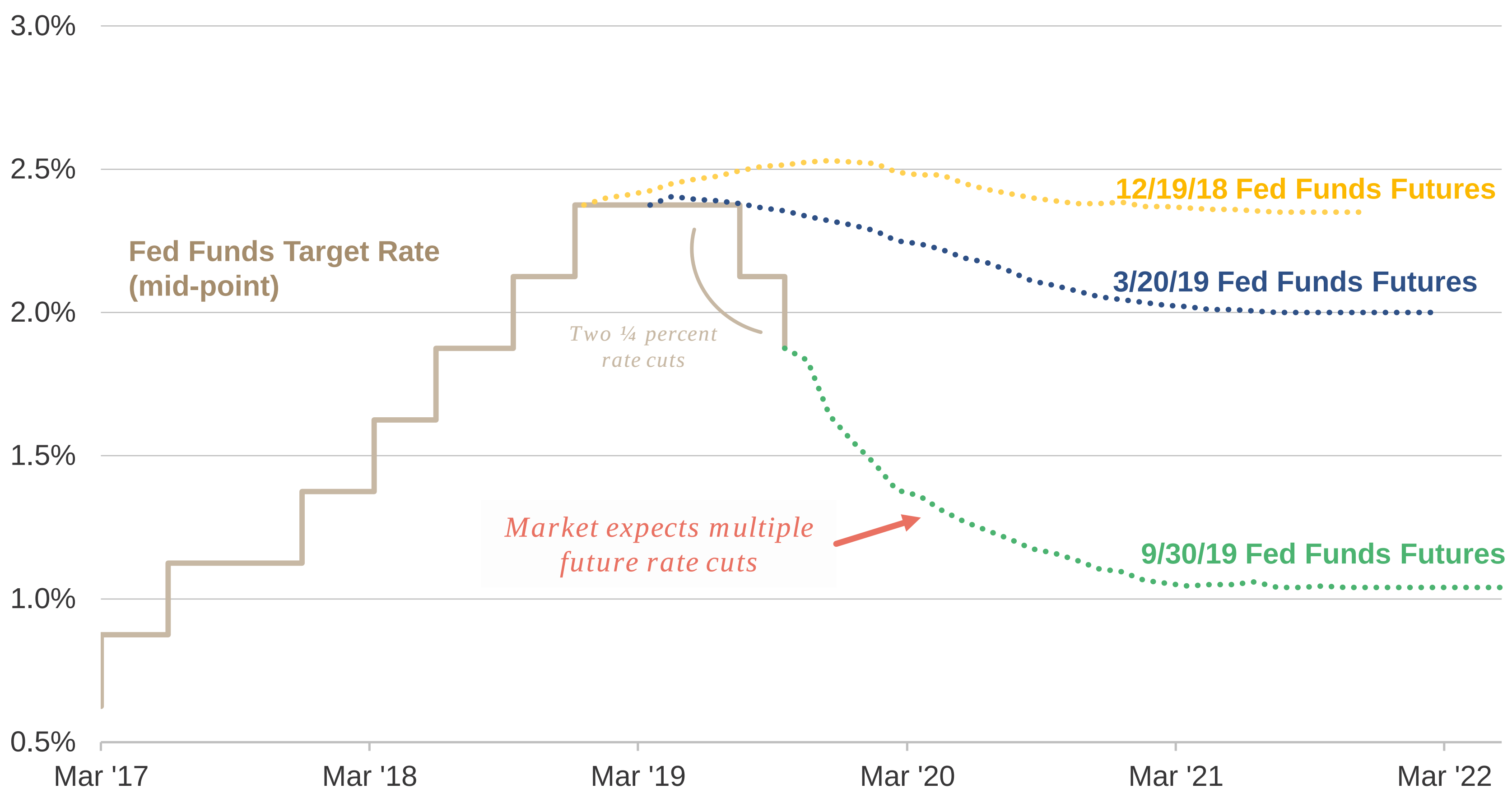
Average One-Year Letter Rating Migration Rates, 1970-2018										
From\To:	Aaa	Aa	A	Baa	Ba	B	Caa	Ca-C	Default	WR
Aaa	87.8%	7.9%	0.6%	0.1%	0.0%	-	-	-	-	3.7%
Aa	0.8%	85.2%	8.5%	0.4%	0.1%	0.0%	0.0%	-	0.0%	4.9%
A	0.1%	2.5%	86.9%	5.3%	0.5%	0.1%	0.0%	-	0.1%	4.7%
Baa	0.0%	0.1%	4.1%	85.9%	3.7%	0.7%	0.2%	0.0%	0.2%	5.2%
Ba	0.0%	0.0%	0.4%	6.2%	76.5%	7.0%	0.7%	0.1%	0.9%	8.1%
B	0.0%	0.0%	0.1%	0.4%	4.8%	73.6%	6.5%	0.5%	3.1%	10.8%
Caa	-	0.0%	0.0%	0.1%	0.3%	6.5%	68.2%	2.8%	7.5%	14.6%
Ca-C	-	-	0.0%	-	0.6%	2.2%	9.9%	38.8%	26.9%	21.5%

Legend: Upgrades; Downgrades to Investment Grade; Downgrades to Non-Investment Grade; Defaults

Source: Moody's Annual Default Study: Corporate Default and Recovery Rates, 1920-2018

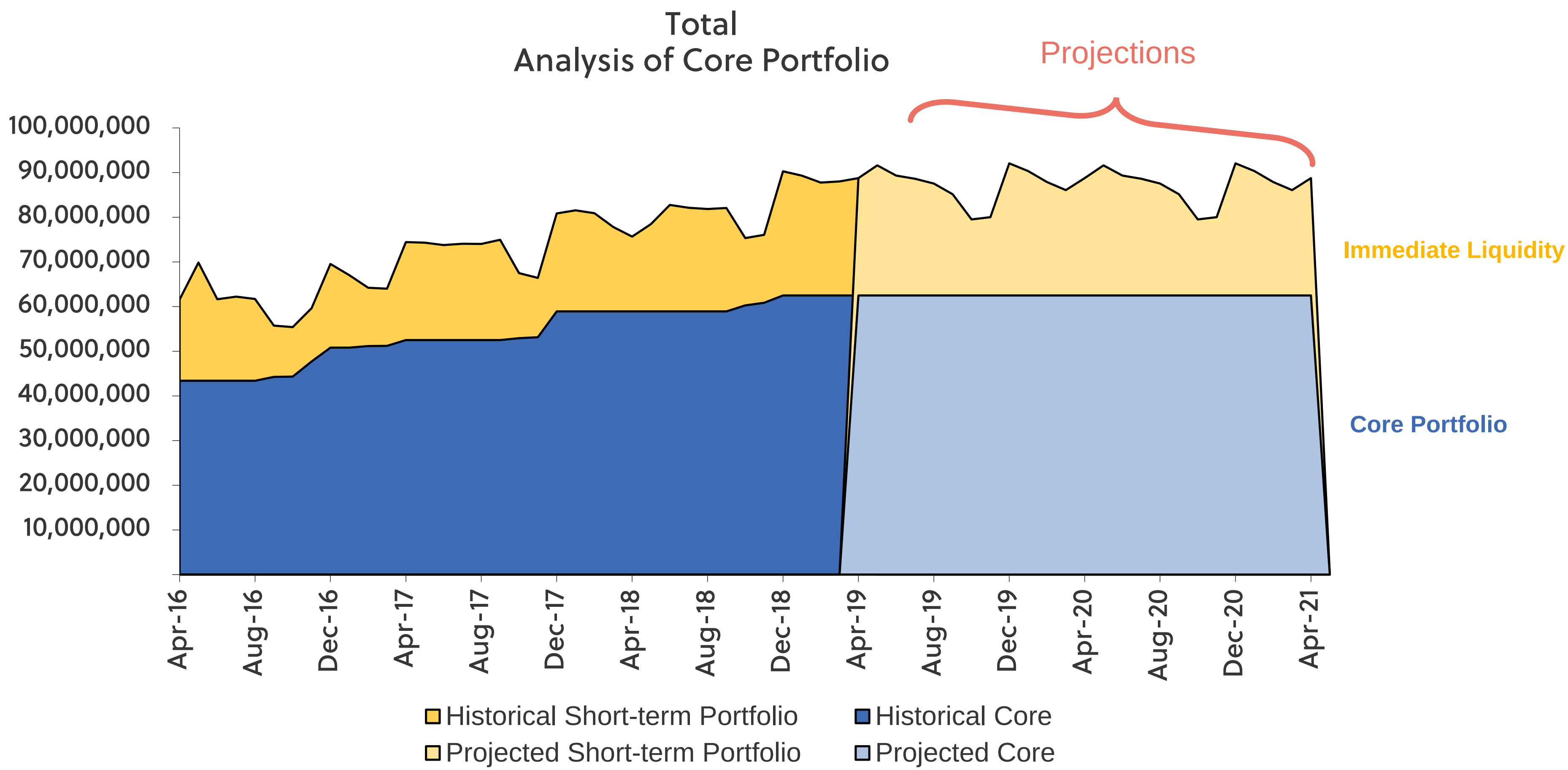
Investment Portfolio Review

The Market Expects Additional Rate Cuts



Source: Federal Reserve and Bloomberg. Fed funds futures as of Fed meeting dates of 12/19/2018 and 3/20/2019, as well as 8/30/2019 and 9/30/2019.

Historical Analysis of Aggregate Portfolio Balances



Balances provided by the City.

Improving Diversification

Current Allocation				Sample Allocation		
	Balance	**Yield**	**Liquidity Tier**		**Balance**	**Yield**
Bank Accounts	$30,554,440	0.75%	**Immediate Liquidity**	Bank Accounts	$24,554,440	0.75%
Local Government Investment Pools	10,308,043	2.19%		Local Government Investment Pools	$10,308,043	2.19%
Core Portfolio	47,158,748	1.86%	**Core Reserves**	Core Portfolio	53,158,748	1.86%
Total	$88,021,231			**Total**	$88,021,231	

Current Allocation data provided by City. Local Government Investment Pool balance combines Florida Prime, Florida CLASS, FLGIT overnight, and FL PALM overnight; it excludes FLGIT ST Bond Fund which are restricted funds and FL PALM Term. Balances as of 3/31/2019. Yields as of 09/30/2019.

Portfolio Segmentation and Strategy Considerations

Portfolio Segment	Strategy Consideration	Potential Characteristics
Immediate Liquidity	Daily Liquidity	• Bank operating cash • Money Market Funds • Local Government Investment Pools (LGIPs)
Core Portfolio	Longer Duration Target (1-3 years)	• Diversified across high-quality asset classes • Realize the benefits of a positively sloped yield curve • Greater focus on income generation (lower liquidity profile) - Corporate notes, MBS, federal agencies, ABS

Fixed-Income Index Returns

September 30, 2019	Effective Duration	Yield	YTD	1 Month	3 Month	1 Year	3 Years	5 Years
1-3 Year Indices								
U.S. Treasury	1.82	1.69%	3.03%	(0.11%)	0.58%	4.36%	1.52%	1.32%
Agency	1.41	1.67%	2.91%	(0.05%)	0.62%	4.19%	1.66%	1.44%
Corp A-AAA	1.77	2.11%	4.17%	0.07%	0.93%	5.11%	2.39%	2.11%
ABS (0 to 3 Years)	1.13	2.11%	3.03%	0.03%	0.71%	3.90%	2.06%	1.74%
1-5 Year Indices								
U.S. Treasury	2.57	1.65%	3.83%	(0.24%)	0.75%	5.62%	1.62%	1.70%
Agency	1.78	1.64%	3.30%	(0.11%)	0.72%	4.77%	1.70%	1.67%
Corp A-AAA	2.57	2.08%	5.53%	1.05%	2.37%	6.53%	2.65%	2.55%
MBS (15 Years)	2.88	2.15%	4.70%	(0.10%)	0.87%	6.67%	1.84%	2.31%
ABS (0 to 5 Years)	1.41	2.12%	3.32%	(0.02%)	0.76%	4.32%	2.11%	1.89%
Master Indices (Maturities 1 Year and Greater)								
U.S. Treasury	6.83	1.73%	7.95%	(0.90%)	2.51%	10.75%	2.30%	3.06%
Agency	4.05	1.76%	6.00%	(0.48%)	1.74%	8.07%	2.43%	2.64%
Corp A-AAA	7.59	2.62%	11.88%	(0.81%)	2.97%	12.62%	4.03%	4.47%
MBS (0 to 30 Years)	3.06	2.51%	5.82%	0.00%	1.44%	7.98%	2.38%	2.83%
Municipals	6.80	1.84%	7.06%	(0.75%)	1.62%	8.73%	3.24%	3.74%

Source: ICE BofAML Indices. Returns greater than one year are annualized.

Custody vs Safekeeping

Custody Integration with Multiple Financial Partners

- PFM works with 49 different custodial banks nationwide
- Enhances the strength of our controls and ability to deploy best practices for our clients

Custodial Banks

Independent Custody Provides Checks and Balances

Investment Advisor

Fiduciary manages or advises investments

City of Port Orange

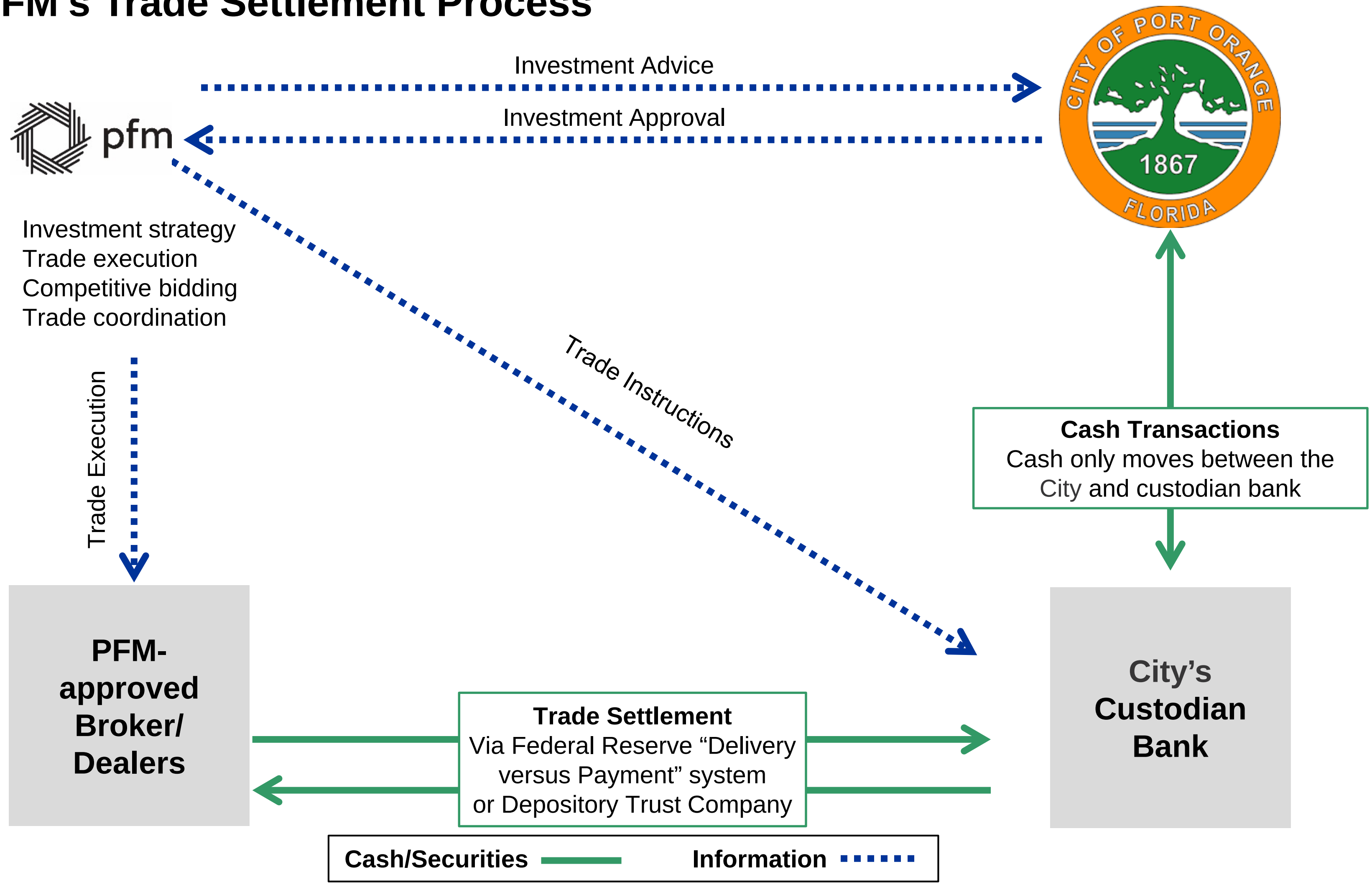
Auditor

Provides independent verification

Custodian

Independent pricing, reporting, and safekeeping of assets

PFM’s Trade Settlement Process



Appendix

Long-Term Sector Performance and Correlations

Sector	Annualized Return	Standard Deviation	Sharpe Ratio	Duration (yrs) as of March 31, 2019
Treasury	1.46%	1.28%	0.80	2.56
Agency	1.58%	1.09%	1.06	1.91
Corporate AAA-A	3.92%	4.19%	0.83	2.52
MBS	2.72%	1.89%	1.21	3.49
Municipal	1.91%	1.22%	1.21	2.42
ABS	2.24%	2.24%	0.81	1.35

Correlation Matrix

	Treasury	Agency	Corp AAA-A	MBS	Municipal	ABS
Treasury	1.00	0.88	0.22	0.77	0.71	0.21
Agency		1.00	0.64	0.91	0.92	0.65
Corp AAA-A			1.00	0.70	0.77	0.98
MBS				1.00	0.87	0.66
Municipal					1.00	0.77
ABS						1.00

Return represents the annualized 10 year return for each sector index and Std. Dev represents the average Std. Dev from each sector index, from March, 2009 – March, 2019. Durations as of 3/31/2019 for each sector index. The annualized 3-month T-bill yield equaling 0.43% was used to calculate the Sharpe ratios. Source: Bloomberg

Credit Analysis and Monitoring Process

Bloomberg
MarketAxess
Tradeweb

Universe of Potential Issuers

Preliminary Screen

- Minimum rating requirements
- Availability of supply
- Relative value analysis

Industry Screen

- Economic outlook
- Outlook for industry growth
- Geographic exposure
- Changes in regulatory environment

Issuer Screen

- Improving or stable ratings
- Diversity of revenue/profits
- Capital structure
- Strength of financial position
- Leader in industry
- Superior product
- Management team

Information Sources:

- Independent research
- Company releases
- Sell side analysis
- News releases
- Company financials
- Ratings reports
- Security valuation

Approved Issuer List

Credit Analysis and Monitoring Process

ML 1-5 Year Corporate Universe (as of May 9, 2019)

Rating	% of Issuers
AAA	1.1%
AA	11.8%
A	41.4%
BBB	45.6%

Exclude BBB-rated credits

Assess/screen sovereign & currency risk

Detailed credit review process

Approved Issuer List
175 Approved Issuers

Annual Issuer-Weighted Corporate Default Rates, 1983-2018

- Since 1983, corporate obligations rated A or better have experienced a very low default rate

Moody's Rating	Highest Annual Default Rate	Lowest Annual Default Rate	Average Annual Default Rate
Aaa	0.00%	0.00%	0.00%
Aa1	0.00%	0.00%	0.00%
Aa2	0.00%	0.00%	0.00%
Aa3	1.49%	0.00%	0.09%
A1	1.05%	0.00%	0.05%
A2	0.41%	0.00%	0.02%
A3	0.69%	0.00%	0.04%

Source: Moody's Default Report, February 2019.

PFM's Credit Committee *(as of January 29, 2019)*

- Formal meetings every month, and as necessary based on market events
- **Function and Responsibilities**
  - Manage credit risk
  - Formal monthly meetings
  - Intra-month meetings as needed
  - Review macro events
  - Review written credit reports, supporting material
  - Monitor credit rating actions
- **Approved Credit List**
  - Primary credit risk management tool
  - Both short-term and long-term views
  - Portfolio managers and traders restricted by approved list
  - Restrictions integrated into trading and compliance systems
  - Limits based on internal credit assessment melded with client needs and policies
- Keeps written minutes of meetings

Credit Committee	Role at PFM
Robert Cheddar, CFA* Committee Chair	Chief Credit Officer / Head Portfolio Manager
Marty Margolis*	Chief Investment Officer
Ken Schiebel, CFA*	Co-head of Portfolio Strategies Group
Kyle Jones*	Co-head of Portfolio Strategies Group
James Sims, CFA	Sr. Portfolio Manager
Michael Varano*	Head Portfolio Manager, LGIPs
Joseph Creason, CFA	Sr. Portfolio Manager
Michael Downs, CFA	Portfolio Manager
Brain Raubenstine	Sr. Portfolio Manager
Jeffrey Rowe, CFA*	Sr. Portfolio Manager
Kerri Staub	Sr. Portfolio Manager
Leo Karwejna (ex-officio)*	Chief Compliance Officer

*Denotes Managing Director

Credit Review Philosophy

- Utilize credit in seeking to generate above benchmark returns with minimum volatility
- Integrated into broader investment process
- Research conducted “on the desk” by portfolio managers and traders
- Emphasize emerging industry and macro trends
- Build in a “margin of safety”

Issuer Analysis	Macro / Industry Analysis
✓ **Balance sheet: ratios and analysis**	✓ **Macro-economic conditions**
✓ **Earnings: actual and projections**	✓ **Industry trends**
✓ **Asset quality and impairments**	✓ **Competitive environment**
✓ **Debt and liquidity levels**	✓ **Business cycle**
✓ **Corporate governance**	✓ **Regulatory environment**
✓ **Prices of bonds, equity, and credit default swaps**	✓ **Rating agency actions**
✓ **Supply and trading volume**	✓ **Sovereign credit developments**
✓ **Analysts’ recommendations**	✓ **Geopolitical risks**

Disclosures

This material is based on information obtained from sources generally believed to be reliable, however, PFM Asset Management LLC cannot guarantee its accuracy, completeness or suitability. This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation. The returns presented are not actual returns, but rather simulated returns based on PFMAM's Capital Market Assumptions and the asset allocations shown. All statements as to what will or may happen under certain circumstances are based on assumptions, some but not all of which are noted in the presentation. Assumptions may or may not be proven correct as actual events occur, and results may depend on events outside of your or our control. Changes in assumptions may have a material effect on results. Past performance does not necessarily reflect and is not a guarantee of future results. The information contained in this presentation is not an offer to purchase or sell any securities.

Investment Policy
City of Port Orange, Florida

REVISED ~~2016~~2019

Table of Contents

Investment Policy
City of Port Orange

I. PURPOSE

The purpose of this policy is to set forth the investment objectives and parameters for the management of the funds of the City of Port Orange, (hereinafter "City"). These policies are designed to ensure the prudent management of public funds, the availability of operating and capital funds when needed, and an investment return competitive with comparable funds and financial market indices.

II. SCOPE

In accordance with Section 218.415, Florida Statutes, this investment policy applies to all cash and investments held or controlled by the City and shall be identified as "general operating funds" or "portfolio" of the City with the exception of the City's Pension Funds and funds related to the issuance of debt where there are other existing policies or indentures in effect for such funds. Additionally, any future revenues, which have statutory investment requirements conflicting with this Investment Policy and funds held by state agencies (e.g., Department of Revenue), are not subject to the provisions of this policy.

III. INVESTMENT OBJECTIVES

Safety of Principal

The foremost objective of this investment program is the safety of the principal of those funds within the portfolios. Investment transactions shall seek to keep capital losses at a minimum, whether they are from securities defaults or erosion of market value. To attain this objective, diversification is required in order that potential losses on individual securities do not exceed the income generated from the remainder of the portfolio.

Maintenance of Liquidity

The portfolios shall be managed in such a manner that funds are available to meet reasonably anticipated cash flow requirements in an orderly manner. Periodic cash flow analyses will be completed in order to ensure that the portfolios are positioned to provide sufficient liquidity.

Return on Investment

The investment portfolio shall be designed with the objective of attaining a market rate of return throughout budgetary and economic cycles, taking into account the investment risk constraints and liquidity needs. Return on investment is of least importance compared to the safety and liquidity objectives described above. However, return is attempted through active management where the Investment Advisor utilizes a total return strategy (which includes both realized and unrealized gains and losses in the portfolio). This total return strategy seeks to increase the value of the portfolio through reinvestment of income and capital gains. The core of investments is limited to relatively low risk securities in anticipation of earning a fair return relative to the risk being assumed. Despite this, an

Investment Advisor may trade to recognize a loss from time to time to achieve a perceived relative value based on its potential to enhance the total return of the portfolio.

IV. DELEGATION OF AUTHORITY

In accordance with the City's Charter, the responsibility for providing oversight and direction in regard to the management of the investment program resides with the City Manager. The management responsibility for all City funds in the investment program and investment transactions is delegated to the City's Finance Director. The Finance Director shall establish written procedures for the operation of the investment portfolio and a system of internal accounting and daily procedures for investment trades and to regulate the activities of employees. The City may employ an Investment Manager to assist in managing some of the City's portfolios. Such Investment Manager must be registered under the Investment Advisers Act of 1940.

V. STANDARDS OF PRUDENCE

The standard of prudence to be used by investment officials shall be the "Prudent Person" standard and shall be applied in the context of managing the overall investment program. Investment officers acting in accordance with written procedures and this investment policy and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectation are reported to the City Council in a timely fashion and the liquidity and the sale of securities are carried out in accordance with the terms of this policy. The "Prudent Person" rule states the following:

> Investments should be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived from the investment.

While the standard of prudence to be used by investment officials who are officers or employees is the "Prudent Person" standard, any person or firm hired or retained to invest, monitor, or advise concerning these assets shall be held to the higher standard of "Prudent Expert". The standard shall be that in investing and reinvesting moneys and in acquiring, retaining, managing, and disposing of investments of these funds, the contractor shall exercise: the judgment, care, skill, prudence, and diligence under the circumstances then prevailing, which persons of prudence, discretion, and intelligence, acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims by diversifying the investments of the funds, so as to minimize the risk, considering the probable income as well as the probable safety of their capital.

VI. ETHICS AND CONFLICTS OF INTEREST

Employees involved in the investment process shall refrain from personal business activity that could conflict with proper execution of the investment program, or which could impair their ability to make impartial investment decisions. Also, employees involved in the investment process shall disclose to the City Clerk, in accordance with the appropriate state statutes governing conflicts of interest, any material financial interests in financial institutions that conduct business with the City, and they shall further disclose any material personal financial/investment positions that could be related to the performance of the City's investment program.

VII. INTERNAL CONTROLS AND INVESTMENT PROCEDURES

The Finance Director shall establish a system of internal controls and operational procedures that are in writing and made a part of the City's operational procedures. The internal controls should be designed to prevent losses of funds, which might arise from fraud, employee error, and misrepresentation, by third parties, or imprudent actions by employees. The written procedures should include reference to safekeeping, repurchase agreements, separation of transaction authority from accounting and record keeping, wire transfer agreements, banking service contracts, collateral/depository agreements, and "delivery vs. payment" procedures. No person may engage in an investment transaction except as authorized under the terms of this policy.

Independent auditors as a normal part of the annual financial audit for the City shall conduct a review of the system of internal controls to ensure compliance with policies and procedures.

VIII. CONTINUING EDUCATION

The Finance Director and appropriate staff shall annually complete a minimum 8 hours of continuing education in subjects or courses of study related to investment practices and products.

IX. AUTHORIZED INVESTMENT INSTITUTIONS AND DEALERS

Authorized City staff shall only purchase securities from financial institutions, which are Qualified Institutions by the City or institutions designated as "Primary Dealers" by the Federal Reserve Bank of New York. Authorized City staff shall only enter into repurchase agreements with financial institutions that are Qualified Institutions and Primary Dealers as designated by the Federal Reserve Bank of New York. The City's Investment Advisor(s) shall utilize and maintain its own list of approved primary and non-primary securities dealers. The Finance Director and/or designee shall maintain a list of financial institutions and broker/dealers that are approved for investment purposes and only firms meeting the following requirements will be eligible to serve as Qualified Institutions:

1) regional dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule);
2) Capital of no less than $10,000,000;
3) registered as a dealer under the Securities Exchange Act of 1934;
4) member of the Financial Industry Regulatory Authority, Inc. (FINRA);
5) registered to sell securities in Florida; and
6) the firm and assigned broker have been engaged in the business of effecting transactions in U.S. government and agency obligations for at least five (5) consecutive years.
7) Public Depositories qualified by the Treasurer of the State of Florida, in accordance with Chapter 280, Florida Statutes.

All brokers, dealers and other financial institutions deemed to be Qualified Institutions shall be provided with current copies of the City's Investment Policy. A current audited financial statement is required to be on file for each financial institution and broker/dealer with which the City transacts business.

X. MATURITY AND LIQUIDITY REQUIREMENTS

To the extent possible, an attempt will be made to match investment maturities with known cash needs and anticipated cash flow requirements. Investments of current operating funds should have maturities of no longer than twenty-four (24) months.

Investments of bond reserves, construction funds, and other non-operating funds ("core funds") shall have a term appropriate to the need for funds and in accordance with debt covenants, but should not exceed ten (10) years.

From time to time the above parameters may require modification in order to meet specific construction draw schedules or other predetermined operating, capital needs or to satisfy debt obligations but in no event shall exceed thirty (30) years.

The maturities of the underlying securities of a repurchase agreement will follow the requirements of the Master Repurchase Agreement.

XI. RISK AND DIVERSIFICATION

Assets held shall be diversified to control risks resulting from over concentration of assets in a specific maturity, issuer, instruments, dealer, or bank through which these instruments are bought and sold. The Finance Director shall determine diversification strategies within the established guidelines.

XII. MASTER REPURCHASE AGREEMENT

The Finance Director will require all approved institutions and dealers transacting repurchase agreements to execute and perform as stated in the Securities Industry and Financial Markets Association (SIFMA) Master Repurchase Agreement. All repurchase agreement transactions will adhere to requirements of the SIFMA Master Repurchase Agreement.

XIII. COMPETITIVE SELECTION OF INVESTMENT INSTRUMENTS

After the Finance Director or the Investment Advisor has determined the approximate maturity date based on cash flow needs and market conditions and has analyzed and selected one or more optimal types of investments, a minimum of three (3) Qualified Institutions and/or Primary Dealers must be contacted and asked to provide bids/offers on securities in questions. Bids will be held in confidence until the bid deemed to best meet the investment objectives is determined and selected.

However, if obtaining bids/offers are not feasible and appropriate, securities may be purchased utilizing the comparison to current market price method on an exception basis. Acceptable current market price providers include, but are not limited to:

A. Tradeweb

B. Bloomberg Information Systems

C. Wall Street Journal or a comparable nationally recognized financial publication providing daily market pricing

D. Daily market pricing provided by the City's custodian or their correspondent institutions

The Finance Director or the Investment Advisor shall utilize the competitive bid process to select the securities to be purchased or sold. Selection by comparison to a current market price, as indicated above, shall only be utilized when, in judgment of the Finance Director or the Investment Advisor, competitive bidding would inhibit the selection process.

Examples of when the City may use this method include:

1. When time constraints due to unusual circumstances preclude the use of the competitive bidding process

2. When no active market exists for the issue being traded due to the age or depth of the issue

3. When a security is unique to a single dealer, for example, a private placement

4. When the transaction involves new issues or issues in the "when issued" market

Overnight sweep investments or repurchase agreements will not be bid, but may be placed with the City's depository bank relating to the demand account for which the sweep investments or repurchase agreement was purchased.

XIV. AUTHORIZED INVESTMENTS AND PORTFOLIO COMPOSITION

Investments should be made subject to the cash flow needs and such cash flows are subject to revisions as market conditions and the City's needs change. However, when the invested funds are needed in whole or in part for the purpose originally intended or for more optimal investments, the Finance Director or designee may sell the investment at the then-prevailing market price and place the proceeds into the proper account at the City's custodian.

The following are the investment requirements and allocation limits on security types, issuers, and maturities as established by the City. The Finance Director or designee shall have the option to further restrict investment percentages from time to time based on market conditions, risk and diversification investment strategies. The percentage allocations requirements for investment types and issuers are calculated based on the original cost of each investment, at the time of purchase. Investments not listed in this policy are prohibited.

The allocation limits and security types do not apply to the investment of debt proceeds. These investments shall be governed by the debt covenant included in the debt instrument.

Permitted Investments

<table>
<tr><th>Sector</th><th>Sector Maximum (%)</th><th>Per Issuer Maximum (%)</th><th>Minimum Ratings Requirement[1]</th><th>Maximum Maturity</th></tr>
<tr><td>U.S. Treasury</td><td rowspan="3">100%</td><td>100%</td><td rowspan="3">N/A</td><td rowspan="3">10 Years (5.50 Years avg. life[4] for GNMA)</td></tr>
<tr><td>GNMA</td><td>40%</td></tr>
<tr><td>Other U.S. Government Guaranteed (e.g. AID, GTC)</td><td>10%</td></tr>
<tr><td>Federal Agency/GSE: FNMA, FHLMC, FHLB, FFCB*</td><td rowspan="2">75%</td><td>40%[3]</td><td rowspan="2">N/A</td><td rowspan="2">10 Years</td></tr>
<tr><td>Federal Agency/GSE other than those above</td><td>10%</td></tr>
</table>

Sector	Sector Maximum (%)	Per Issuer Maximum (%)	Minimum Ratings Requirement[1]	Maximum Maturity
Supranationals where U.S. is a shareholder and voting member	25%	10%	Highest ST or Two Highest LT Rating Categories (A-1/P-1, AAA/Aa, or equivalent)	5.50 Years
Corporates	50%[2]	5%	Highest ST or Three Highest LT Rating Categories (A-1/P-1, A-/A3 or equivalent)~~Two Highest LT Rating Categories (Aa, AA or equivalent)~~	5.50 Years
Municipals	25%	5%	Two Highest LT Rating Categories (Aa, AA or equivalent)	5.50 Years
Agency Mortgage-Backed Securities (MBS)	25%	40%[3]	N/A	5.50 Years Avg. Life[4]
Asset-Backed Securities (ABS)	25%	5%	Highest ST or LT Rating (A-1+/P-1, AAA/Aaa, or equivalent)	5.50 Years Avg. Life[4]
Non-Negotiable Collateralized Bank Deposits or Savings Accounts	50%	None, if fully collateralized	None, if fully collateralized.	2 Years
Commercial Paper (CP)	50%[2]	5%	Highest ST Rating Category (A-1/P-1, or equivalent)	270 Days
Bankers' Acceptances (BAs)	10%[2]	5%	Highest ST Rating Category (A-1/P-1, or equivalent)	180 Days
Repurchase Agreements (Repo or RP)	40%	20%	Counterparty (or if the counterparty is not rated by an NRSRO, then the counterparty's parent) must be rated in the Highest ST Rating Category (A-1/P-1, or equivalent) If the counterparty is a Federal Reserve Bank, no rating is required	1 Year
Money Market Funds (MMFs)	50%	25%	Highest Fund Rating by all NRSROs who rate the fund (AAAm/Aaa-mf, or equivalent)	N/A
Fixed-Income Mutual Funds & ETFs	20%	10%	N/A	N/A
Intergovernmental Pools (LGIPs)	50%	25%	Highest Fund Quality and Volatility Rating Categories by all NRSROs who rate the LGIP, (AAAm/AAAf, S1, or equivalent)	N/A
Florida Local Government Surplus Funds Trust Funds ("Florida Prime")	25%	N/A	Highest Fund Rating by all NRSROs who rate the fund (AAAm/Aaa-mf, or equivalent)	N/A

Notes:

[1] Rating by at least one SEC-registered Nationally Recognized Statistical Rating Organization ("NRSRO"), unless otherwise noted. ST=Short-term; LT=Long-term.

[2] Maximum allocation to all corporate and bank credit instruments is 50% combined.

[3] Maximum exposure to any one Federal agency, including the combined holdings of Agency debt and Agency MBS, is 40%.

[4] The maturity limit for MBS and ABS is based on the expected average life at time of settlement, measured using Bloomberg or other industry standard methods.

* Federal National Mortgage Association (FNMA); Federal Home Loan Mortgage Corporation (FHLMC); Federal Home Loan Bank or its District banks (FHLB); Federal Farm Credit Bank (FFCB).

1) **U.S. Treasury & Government Guaranteed -** U.S. Treasury obligations, and obligations the principal and interest of which are backed or guaranteed by the full faith and credit of the U.S. Government.

2) **Federal Agency/GSE -** Debt obligations, participations or other instruments issued or fully guaranteed by any U.S. Federal agency, instrumentality or government-sponsored enterprise (GSE).

3) **Supranationals –** U.S. dollar denominated debt obligations of a multilateral organization of governments where U.S. is a shareholder and voting member.

4) **Corporates –** U.S. dollar denominated corporate notes, bonds or other debt obligations issued or guaranteed by a domestic or foreign corporation, financial institution, non-profit, or other entity.

5) **Municipals –** Obligations, including both taxable and tax-exempt, issued or guaranteed by any State, territory or possession of the United States, political subdivision, public corporation, authority, agency board, instrumentality or other unit of local government of any State or territory.

6) **Agency Mortgage Backed Securities -** Mortgage-backed securities (MBS), backed by residential, multi-family or commercial mortgages, that are issued or fully guaranteed as to principal and interest by a U.S. Federal agency or government sponsored enterprise, including but not limited to pass-throughs, collateralized mortgage obligations (CMOs) and REMICs.

7) **Asset-Backed Securities -** Asset-backed securities (ABS) whose underlying collateral consists of loans, leases or receivables, including but not limited to auto loans/leases, credit card receivables, student loans, equipment loans/leases, or home-equity loans.

8) **Non-Negotiable Certificate of Deposit and Savings Accounts -** Non-negotiable interest bearing time certificates of deposit, or savings accounts in banks organized under the laws of this state or in national banks organized under the laws of the United States and doing business in this state, provided that any such deposits are secured by the Florida Security for Public Deposits Act, Chapter 280, Florida Statutes.

9) **Commercial Paper –** U.S. dollar denominated commercial paper issued or guaranteed by a domestic or foreign corporation, company, financial institution, trust or other entity, including both unsecured debt and asset-backed programs.

10) **Bankers' Acceptances -** Bankers' acceptances issued, drawn on, or guaranteed by a U.S. bank or U.S. branch of a foreign bank.

11) **Repurchase Agreements -** Repurchase agreements (Repo or RP) that meet the following requirements:
    a. Must be governed by a written SIFMA Master Repurchase Agreement which specifies securities eligible for purchase and resale, and which provides the unconditional right to liquidate the underlying securities should the Counterparty default or fail to provide full timely repayment.
    b. Counterparty must be a Federal Reserve Bank, a Primary Dealer as designated by the Federal Reserve Bank of New York, or a nationally chartered commercial bank.
    c. Securities underlying repurchase agreements must be delivered to a third party custodian under a written custodial agreement and may be of deliverable or tri-party form. Securities must be held in the City's custodial account or in a separate account in the name of the City.
    d. Acceptable underlying securities include only securities that are direct obligations of, or that are fully guaranteed by, the United States or any agency of the United States, or U.S. Agency-backed mortgage related securities.
    e. Underlying securities must have an aggregate current market value of at least 102% (or 100% if the counterparty is a Federal Reserve Bank) of the purchase price plus current accrued price differential at the close of each business day.
    f. Final term of the agreement must be 1 year or less.

12) **Money Market Funds -** Shares in open-end and no-load money market mutual funds, provided such funds are registered under the Investment Company Act of 1940 and operate in accordance with Rule 2a-7.

A thorough investigation of any money market fund is required prior to investing, and on an annual basis. Appendix B is a questionnaire that contains a list of questions, to be answered prior to investing, that cover the major aspects of any investment pool/fund. A current prospectus must be obtained.

13) **Fixed-Income Mutual Funds and ETFs -** Shares in open-end and no-load fixed-income mutual funds or exchange-traded funds (ETFs) whose underlying investments would be permitted for purchase under this policy and all its restrictions.

14) **Local Government Investment Pools –** State, local government or privately-sponsored investment pools that are authorized pursuant to state law.

    A thorough investigation of any intergovernmental investment pool is required prior to investing, and on an annual basis. Appendix B is a questionnaire that contains a list of questions, to be answered prior to investing, that cover the major aspects of any investment pool/fund. A current prospectus must be obtained.

15) **The Florida Local Government Surplus Funds Trust Funds ("Florida Prime")** A thorough investigation of the Florida Prime is required prior to investing, and on an annual basis. Appendix B is a questionnaire that contains a list of questions, to be answered prior to investing, that cover the major aspects of any investment pool/fund. A current prospectus or portfolio report must be obtained.

General Investment and Portfolio Limits

1. General investment limitations:
    a. Investments must be denominated in U.S. dollars and issued for legal sale in U.S. markets.
    b. Minimum ratings are based on the highest rating by any one Nationally Recognized Statistical Ratings Organization ("NRSRO"), unless otherwise specified.
    c. All limits and rating requirements apply at time of purchase.
    d. Should a security fall below the minimum credit rating requirement for purchase, the Investment Advisor will notify the Finance Director.
    e. The maximum maturity (or average life for MBS/ABS) of any investment is 10 years. Maturity and average life are measured from settlement date. The final maturity date can be based on any mandatory call, put, pre-refunding date, or other mandatory redemption date.
2. General portfolio limitations:
    a. The maximum effective duration of the aggregate portfolio is 3 years.
    b. Maximum exposure to issuers in any non-U.S. country cannot exceed 10 percent per country.
3. Investment in the following are permitted, provided they meet all other policy requirements:
    a. Callable, step-up callable, called, pre-refunded, putable and extendable securities, as long as the effective final maturity meets the maturity limits for the sector
    b. Variable-rate and floating-rate securities
    c. Subordinated, secured and covered debt, if it meets the ratings requirements for the sector
    d. Zero coupon issues and strips, excluding agency mortgage-backed Interest-only structures (I/Os)
    e. Treasury TIPS
4. The following are **NOT PERMITTED** investments, unless specifically authorized by statute and with prior approval of the governing body**:**
    a. Trading for speculation
    b. Derivatives (other than callables and traditional floating or variable-rate instruments)
    c. Mortgage-backed interest-only structures (I/Os)

d. Inverse or leveraged floating-rate and variable-rate instruments
e. Currency, equity, index and event-linked notes (e.g. range notes), or other structures that could return less than par at maturity
f. Private placements and direct loans, except as may be legally permitted by Rule 144A or commercial paper issued under a 4(2) exemption from registration
g. Convertible, high yield, and non-U.S. dollar denominated debt
h. Short sales
i. Use of leverage
j. Futures and options
k. Mutual funds, other than fixed-income mutual funds and ETFs, and money market funds
l. Equities, commodities, currencies and hard assets

XV. DERIVATIVES AND REVERSE REPURCHASE AGREEMENTS

Investment in any derivative products or the use of reverse repurchase agreements requires specific City Council approval prior to their use, unless otherwise specified in Section XII of this Investment Policy. If the City Council approves the use of derivative products, the Finance Director shall develop sufficient understanding of the derivative products and have the expertise to manage them. A "derivative" is defined as a financial instrument the value of which depends on, or is derived from, the value of one or more underlying assets or indices or asset values. If the City Council approves the use of reverse repurchase agreements or other forms of leverage, the investment shall be limited to transactions in which the proceeds are intended to provide liquidity and for which the Finance Director has sufficient resources and expertise to manage them.

XVI. PERFORMANCE MEASUREMENTS

In order to assist in the evaluation of the portfolios' performance, the City will use performance benchmarks for short-term and long-term portfolios. The use of benchmarks will allow the City to measure its returns against other investors in the same markets.

A. Investment performance of funds designated as short-term funds and other funds that must maintain a high degree of liquidity will be compared to the S&P Rated GIP Index Government 30-Day Gross of Fees yield will be used as a benchmark as compared to the portfolios' net book value rate of return for current operating funds. Investments of current operating funds should have maturities of no longer than twenty-four (24) months.

B. Investment performance of funds designated as core funds and other non-operating funds that have a longer-term investment horizon will be compared to the Bank of America Merrill Lynch 1-3 Year U.S. Treasury Note Index and the portfolio's total rate of return will be compared to this benchmark. The appropriate index will have a duration and asset mix that approximates the portfolios and will be utilized as a benchmark to be compared to the portfolios' total rate of return. Investments of bond reserves, construction funds, and other non-operating funds ("core funds") should have a term appropriate to the need for funds and in accordance with debt covenants, but should not exceed ten (10) years.

XVII. REPORTING

The Finance Director and/or Investment Advisor shall provide the City Manager with a "Quarterly Investment Report" that summarizes but not limited to the following:

A. Recent market conditions, economic developments and anticipated investment conditions.

B. The investment strategies employed in the most recent quarter.

C. A description of all securities held in investment portfolios at month-end.

D. The total rate of return for the quarter and year-to-date versus appropriate benchmarks.

E. Any areas of policy concern warranting possible revisions to current or planned investment strategies. The market values presented in these reports will be consistent with accounting guidelines in GASB Statement 31.

On an annual basis, the Finance Director shall submit to the City Council a written report on all invested funds. The annual report shall provide all, but not limited to, the following: a complete list of all invested funds, name or type of security in which the funds are invested, the amount invested, the maturity date, earned income, the book value, the market value, the yield on each investment.

The annual report will show performance on both a book value and total rate of return basis and will compare the results to the above-stated performance benchmarks. All investments shall be reported at fair value per GASB Statement 31. Investment reports shall be available to the public.

XVIII. THIRD-PARTY CUSTODIAL AGREEMENTS

Securities, with the exception of certificates of deposits, shall be held with a third party custodian; and all securities purchase by, and all collateral obtained by; the City should be properly designated as an asset of the City. The securities must be held in an account separate and apart from the assets of the financial institution. A third party custodian is defined as any bank depository chartered by the Federal Government, the State of Florida, or any other state or territory of the United States which has a branch or principal place of business in the State of Florida, or by a national association organized and existing under the laws of the United States which is authorized to accept and execute trusts and which is doing business in the State of Florida. Certificates of deposits will be placed in the provider's safekeeping department for the term of the deposit.

The custodian shall accept transaction instructions only from those persons who have been duly authorized by the City Manager and which authorization has been provided, in writing, to the custodian. No withdrawal of securities, in whole or in part, shall be made from safekeeping, shall be permitted unless by such a duly authorized person.

The custodian shall provide the Finance Director with safekeeping statements that provide detail information on the securities held by the custodian. On a monthly basis, the custodian will also provide reports that list all securities held for the City, the book value of holdings and the market value as of month-end.

Security transactions between a broker/dealer and the custodian involving the purchase or sale of securities by transfer of money or securities must be made on a "delivery vs. payment" basis, if applicable, to ensure that the custodian will have the security or money, as appropriate, in hand at the conclusion of the transaction. Securities held as collateral shall be held free and clear of any liens.

~~XIX. INVESTMENT COMMITTEE~~

~~An Investment Committee has been established for the purpose of formulating alternative investment strategies and short-range directions within the guideline herein set forth and for monitoring the performance and structure of the City's portfolio. The Committee shall include the City Manager, Finance Director, the Accounting and Budget Manager, a Council Member, and may include other members as may be designated by the Finance Director and/or City Manager from time to time.~~

~~A designee of the Finance Director will provide the Committee members with current market information, an updated portfolio listing and analysis, and various pertinent financial data. The Committee or quorum of the committee shall meet as often as deemed necessary, under the given conditions, to review, discuss and affirm or alter the current investment strategy and perform other functions as herein provided.~~

~~The Investment Committee activities shall include but not be limited to review and setting investment strategies; review and establishing of written investment procedures; review and approval of bank and other rating agency services; review and approval of source documentation regarding issuers, institutions and dealers, and any other functions as defined herein.~~

XX. INVESTMENT POLICY ADOPTION

The Investment Policy shall be adopted by City resolution. The Finance Director, Accounting and Budget Manager, and the Investment Committee shall review the policy annually and the City Council shall approve any modification made thereto. Any inconsistencies between the current portfolio and this policy will be considered acceptable as long as corrective measures are completed to adjust the portfolio in accordance with this policy.

APPROVED AND ADOPTED BY THE CITY COUNCIL ON FEBRUARY 16~~9~~, 2016; RESOLUTION # 16-12~~_______~~_

Appendix A
Glossary of Cash and Investment Management Terms

The following is a glossary of key investing terms, many of which appear in the City's investment policy. This glossary clarifies the meaning of investment terms generally used in cash and investment management. This glossary has been adapted from the GFOA Sample Investment Policy and the Association of Public Treasurers of the United States and Canada's Model Investment Policy.

Accrued Interest. Interest earned but which has not yet been paid or received.

Agency. See "Federal Agency Securities."

Ask Price. Price at which a broker/dealer offers to sell a security to an investor. Also known as "offered price."

Asset Backed Securities (ABS). A fixed-income security backed by notes or receivables against assets other than real estate. Generally issued by special purpose companies that "own" the assets and issue the ABS. Examples include securities backed by auto loans, credit card receivables, home equity loans, manufactured housing loans, farm equipment loans, and aircraft leases.

Average Life. The average length of time that an issue of serial bonds and/or term bonds with a mandatory sinking fund feature is expected to be outstanding.

Bankers' Acceptance (BA's). A draft or bill of exchange drawn upon and accepted by a bank. Frequently used to finance shipping of international goods. Used as a short-term credit instrument, bankers' acceptances are traded at a discount from face value as a money market instrument in the secondary market on the basis of the credit quality of the guaranteeing bank.

Basis Point. One hundredth of one percent, or 0.01%. Thus 1% equals 100 basis points.

Bearer Security. A security whose ownership is determined by the holder of the physical security. Typically, there is no registration on the issuer's books. Title to bearer securities is transferred by delivery of the physical security or certificate. Also known as "physical securities."

Benchmark Bills: In November 1999, FNMA introduced its Benchmark Bills program, a short-term debt securities issuance program to supplement its existing discount note program. The program includes a schedule of larger, weekly issues in three- and six-month maturities and biweekly issues in one-year for Benchmark Bills. Each issue is brought to market via a Dutch (single price) auction. FNMA conducts a weekly auction for each Benchmark Bill maturity and accepts both competitive and non-competitive bids through a web based auction system. This program is in addition to the variety of other discount note maturities, with rates posted on a daily basis, which FNMA offers. FNMA's Benchmark Bills are unsecured general obligations that are issued in book-entry form through the Federal Reserve Banks. There are no periodic payments of interest on Benchmark Bills, which are sold at a discount from the principal amount and payable at par at maturity. Issues under the Benchmark program constitute the same credit standing as other FNMA discount notes; they simply add organization and liquidity to the short-term Agency discount note market.

Benchmark Notes/Bonds: Benchmark Notes and Bonds are a series of FNMA "bullet" maturities (non-callable) issued according to a pre-announced calendar. Under its Benchmark Notes/Bonds program, 2, 3, 5, 10, and 30-year maturities are issued each quarter. Each Benchmark Notes new issue has a minimum size of $4 billion, 30-year new issues having a minimum size of $1 billion, with re-openings based on investor demand to further enhance liquidity. The amount of non-callable issuance has allowed FNMA to build a yield curve in Benchmark Notes and Bonds in maturities ranging from 2 to 30 years. The liquidity emanating from these large size issues has facilitated favorable financing opportunities through the development of a liquid overnight and term repo market. Issues under the Benchmark program constitute the same credit standing as other FNMA issues; they simply add organization and liquidity to the intermediate- and long-term Agency market.

Benchmark. A market index used as a comparative basis for measuring the performance of an investment portfolio. A performance benchmark should represent a close correlation to investment guidelines, risk tolerance, and duration of the actual portfolio's investments.

Bid Price. Price at which a broker/dealer offers to purchase a security from an investor.

Bond. Financial obligation for which the issuer promises to pay the bondholder (the purchaser or owner of the bond) a specified stream of future cash-flows, including periodic interest payments and a principal repayment.

Book Entry Securities. Securities that are recorded in a customer's account electronically through one of the financial markets electronic delivery and custody systems, such as the Fed Securities wire, DTC, and PTC

(as opposed to bearer or physical securities). The trend is toward a certificate-free society in order to cut down on paperwork and to diminish investors' concerns about the certificates themselves. The vast majority of securities are now book entry securities.

Book Value. The value at which a debt security is reflected on the holder's records at any point in time. Book value is also called "amortized cost" as it represents the original cost of an investment adjusted for amortization of premium or accretion of discount. Also called "carrying value." Book value can vary over time as an investment approaches maturity and differs from "market value" in that it is not affected by changes in market interest rates.

Broker/Dealer. A person or firm transacting securities business with customers. A "broker" acts as an agent between buyers and sellers, and receives a commission for these services. A "dealer" buys and sells financial assets from its own portfolio. A dealer takes risk by owning inventory of securities, whereas a broker merely matches up buyers and sellers. See also "Primary Dealer."

Bullet Notes/Bonds. Notes or bonds that have a single maturity date and are non-callable.

Call Date. Date at which a call option may be or is exercised.

Call Option. The right, but not the obligation, of an issuer of a security to redeem a security at a specified value and at a specified date or dates prior to its stated maturity date. Most fixed-income calls are a par, but can be at any previously established price. Securities issued with a call provision typically carry a higher yield than similar securities issued without a call feature. There are three primary types of call options (1) European - one-time calls, (2) Bermudan - periodically on a predetermined schedule (quarterly, semi-annual, annual), and (3) American - continuously callable at any time on or after the call date. There is usually a notice period of at least 5 business days prior to a call date.

Callable Bonds/Notes. Securities which contain an imbedded call option giving the issuer the right to redeem the securities prior to maturity at a predetermined price and time.

Certificate of Deposit (CD). Bank obligation issued by a financial institution generally offering a fixed rate of return (coupon) for a specified period of time (maturity). Can be as long as 10 years to maturity, but most CDs purchased by public agencies are one year and under.

Collateral. Investment securities or other property that a borrower pledges to secure repayment of a loan, secure deposits of public monies, or provide security for a repurchase agreement.

Collateralization. Process by which a borrower pledges securities, property, or other deposits for securing the repayment of a loan and/or security.

Collateralized Mortgage Obligation (CMO). A security that pools together mortgages and separates them into short, medium, and long-term positions (called tranches). Tranches are set up to pay different rates of interest depending upon their maturity. Interest payments are usually paid monthly. In “plain vanilla” CMOs, principal is not paid on a tranche until all shorter tranches have been paid off. This system provides interest and principal in a more predictable manner. A single pool of mortgages can be carved up into numerous tranches each with its own payment and risk characteristics.

Commercial Paper. Short term unsecured promissory note issued by a company or financial institution. Issued at a discount and matures for par or face value. Usually a maximum maturity of 270 days and given a short-term debt rating by one or more NRSROs.

Convexity. A measure of a bond's price sensitivity to changing interest rates. A high convexity indicates greater sensitivity of a bond's price to interest rate changes.

Corporate Note. A debt instrument issued by a corporation with a maturity of greater than one year and less than ten years.

Counterparty. The other party in a two party financial transaction. "Counterparty risk" refers to the risk that the other party to a transaction will fail in its related obligations. For example, the bank or broker/dealer in a repurchase agreement.

Coupon Rate. Annual rate of interest on a debt security, expressed as a percentage of the bond’s face value.

Current Yield. Annual rate of return on a bond based on its price. Calculated as (coupon rate / price), but does not accurately reflect a bond’s true yield level.

Custody. Safekeeping services offered by a bank, financial institution, or trust company, referred to as the “custodian.” Service normally includes the holding and reporting of the customer's securities, the collection and disbursement of income, securities settlement, and market values.

Dealer. A dealer, as opposed to a broker, acts as a principal in all transactions, buying and selling for his/her own account.

Delivery Versus Payment (DVP). Settlement procedure in which securities are delivered versus payment of cash, but only after cash has been received. Most security transactions, including those through the Fed Securities Wire system and DTC, are done DVP as a protection for both the buyer and seller of securities.

Depository Trust Company (DTC). A firm through which members can use a computer to arrange for securities to be delivered to other members without physical delivery of certificates. A member of the Federal Reserve System and owned mostly by the New York Stock Exchange, the Depository Trust Company uses computerized debit and credit entries. Most corporate securities, commercial paper, CDs, and BAs clear through DTC.

Derivatives. (1) Financial instruments whose return profile is linked to, or derived from, the movement of one or more underlying index or security, and may include a leveraging factor, or (2) financial contracts based upon notional amounts whose value is derived from an underlying index or security (interest rates, foreign exchange rates, equities, or commodities). For hedging purposes, common derivatives are options, futures, interest rate swaps, and swaptions.

Derivative Security. Financial instrument created from, or whose value depends upon, one or more underlying assets or indexes of asset values.

Designated Bond. FFCB’s regularly issued, liquid, non-callable securities that generally have a 2 or 3 year original maturity. New issues of Designated Bonds are $1 billion or larger. Re-openings of existing Designated

Bond issues are generally a minimum of $100 million. Designated Bonds are offered through a syndicate of two to six dealers. Twice each month the Funding Corporation announces its intention to issue a new Designated Bond, reopen an existing issue, or to not issue or reopen a Designated Bond. Issues under the Designated Bond program constitute the same credit standing as other FFCB issues; they simply add organization and liquidity to the intermediate- and long-term Agency market.

Discount Notes. Unsecured general obligations issued by Federal Agencies at a discount. Discount notes mature at par and can range in maturity from overnight to one year. Very large primary (new issue) and secondary markets exist.

Discount Rate. Rate charged by the system of Federal Reserve Banks on overnight loans to member banks. Changes to this rate are administered by the Federal Reserve and closely mirror changes to the “fed funds rate.”

Discount Securities. Non-interest bearing money market instruments that are issued at discount and redeemed at maturity for full face value. Examples include: U.S. Treasury Bills, Federal Agency Discount Notes, Bankers' Acceptances, and Commercial Paper.

Discount. The amount by which a bond or other financial instrument sells below its face value. See also "Premium."

Diversification. Dividing investment funds among a variety of security types, maturities, industries, and issuers offering potentially independent returns.

Dollar Price. A bond’s cost expressed as a percentage of its face value. For example, a bond quoted at a dollar price of 95 ½, would have a principal cost of $955 per $1,000 of face value.

Duff & Phelps. One of several NRSROs that provide credit ratings on corporate and bank debt issues.

Duration. The weighted average maturity of a security’s or portfolio’s cash-flows, where the present values of the cash-flows serve as the weights. The greater the duration of a security/portfolio, the greater its percentage price volatility with respect to changes in interest rates. Used as a measure of risk and a key tool for managing a portfolio versus a benchmark and for hedging risk. There are also different kinds of duration used for different purposes (e.g. MacAuley Duration, Modified Duration).

Fannie Mae. See "Federal National Mortgage Association."

Fed Money Wire. A computerized communications system that connects the Federal Reserve System with its member banks, certain U. S. Treasury offices, and the Washington D.C. office of the Commodity Credit Corporation. The Fed Money Wire is the book entry system used to transfer cash balances between banks for themselves and for customer accounts.

Fed Securities Wire. A computerized communications system that facilitates book entry transfer of securities between banks, brokers and customer accounts, used primarily for settlement of U.S. Treasury and Federal Agency securities.

Fed. See "Federal Reserve System."

Federal Agency Security. A debt instrument issued by one of the Federal Agencies. Federal Agencies are considered second in credit quality and liquidity only to U.S. Treasuries.

Federal Agency. Government sponsored/owned entity created by the U.S. Congress, generally for the purpose of acting as a financial intermediary by borrowing in the marketplace and directing proceeds to specific areas of the economy considered to otherwise have restricted access to credit markets. The largest Federal Agencies are GNMA, FNMA, FHLMC, FHLB, FFCB, SLMA, and TVA.

Federal Deposit Insurance Corporation (FDIC). Federal agency that insures deposits at commercial banks, currently to a limit of $250,000 per depositor per bank.

Federal Farm Credit Bank (FFCB). One of the large Federal Agencies. A government sponsored enterprise (GSE) system that is a network of cooperatively-owned lending institutions that provides credit services to farmers, agricultural cooperatives and rural utilities. The FFCBs act as financial intermediaries that borrow money in the capital markets and use the proceeds to make loans and provide other assistance to farmers and farm-affiliated businesses. Consists of the consolidated operations of the Banks for Cooperatives, Federal Intermediate Credit Banks, and Federal Land Banks. Frequent issuer of discount notes, agency notes and callable agency securities. FFCB debt is not an obligation of, nor is it guaranteed by the U.S. government, although it is considered to have minimal credit risk due to its importance to the U.S. financial system and agricultural industry. Also issues notes under its "designated note" program.

Federal Funds (Fed Funds). Funds placed in Federal Reserve Banks by depository institutions in excess of current reserve requirements, and frequently loaned or borrowed on an overnight basis between depository institutions.

Federal Funds Rate (Fed Funds Rate). The interest rate charged by a depository institution lending Federal Funds to another depository institution. The Federal Reserve influences this rate by establishing a "target" Fed Funds rate associated with the Fed's management of monetary policy.

Federal Home Loan Bank System (FHLB). One of the large Federal Agencies. A government sponsored enterprise (GSE) system, consisting of wholesale banks (currently twelve district banks) owned by their member banks, which provides correspondent banking services and credit to various financial institutions, financed by the issuance of securities. The principal purpose of the FHLB is to add liquidity to the mortgage markets. Although FHLB does not directly fund mortgages, it provides a stable supply of credit to thrift institutions that make new mortgage loans. FHLB debt is not an obligation of, nor is it guaranteed by the U.S. government, although it is considered to have minimal credit risk due to its importance to the U.S. financial system and housing market. Frequent issuer of discount notes, agency notes and callable agency securities. Also issues notes under its "global note" and "TAP" programs.

Federal Home Loan Mortgage Corporation (FHLMC or "Freddie Mac"). One of the large Federal Agencies. A government sponsored public corporation (GSE) that provides stability and assistance to the secondary market for home mortgages by purchasing first mortgages and participation interests financed by the sale of debt and guaranteed mortgage backed securities. FHLMC debt is not an obligation of, nor is it guaranteed by the U.S. government, although it is considered to have minimal credit risk due to its importance to the U.S. financial system and housing market. Frequent issuer of discount notes, agency notes, callable agency securities, and MBS. Also issues notes under its "reference note" program.

Federal National Mortgage Association (FNMA or "Fannie Mae"). One of the large Federal Agencies. A government sponsored public corporation (GSE) that provides liquidity to the residential mortgage market by purchasing mortgage loans from lenders, financed by the issuance of debt securities and MBS (pools of mortgages packaged together as a security). FNMA debt is not an obligation of, nor is it guaranteed by the U.S. government, although it is considered to have minimal credit risk due to its importance to the U.S. financial system and housing market. Frequent issuer of discount notes, agency notes, callable agency securities and MBS. Also issues notes under its "benchmark note" program.

Federal Reserve Bank. One of the 12 distinct banks of the Federal Reserve System.

Federal Reserve System (the Fed). The independent central bank system of the United States that establishes and conducts the nation's monetary policy. This is accomplished in three major ways: (1) raising or lowering bank reserve requirements, (2) raising or lowering the target Fed Funds Rate and Discount Rate, and (3) in open market operations by buying and selling government securities. The Federal Reserve System is made up of twelve Federal Reserve District Banks, their branches, and many national and state banks throughout the nation. It is headed by the seven member Board of Governors known as the "Federal Reserve Board" and headed by its Chairman.

Financial Industry Regulatory Authority, Inc. (FINRA). A private corporation that acts as a self-regulatory organization (SRO). FINRA is the successor to the National Association of Securities Dealers, Inc. (NASD). Though sometimes mistaken for a government agency, it is a non-governmental organization that performs financial regulation of member brokerage firms and exchange markets. The government also has a regulatory arm for investments, the Securities and Exchange Commission (SEC).

Fiscal Agent/Paying Agent. A bank or trust company that acts, under a trust agreement with a corporation or municipality, in the capacity of general treasurer. The agent performs such duties as making coupon payments, paying rents, redeeming bonds, and handling taxes relating to the issuance of bonds.

Fitch Investors Service, Inc. One of several NRSROs that provide credit ratings on corporate and municipal debt issues.

Floating Rate Security (FRN or "floater"). A bond with an interest rate that is adjusted according to changes in an interest rate or index. Differs from variable-rate debt in that the changes to the rate take place immediately when the index changes, rather than on a predetermined schedule. See also "Variable Rate Security."

Freddie Mac. See "Federal Home Loan Mortgage Corporation."

Ginnie Mae. See "Government National Mortgage Association."

Global Notes: Notes designed to qualify for immediate trading in both the domestic U.S. capital market and in foreign markets around the globe. Usually large issues that are sold to investors worldwide and therefore have excellent liquidity. Despite their global sales, global notes sold in the U.S. are typically denominated in U.S. dollars.

Government National Mortgage Association (GNMA or "Ginnie Mae"). One of the large Federal Agencies. Government-owned Federal Agency that acquires, packages, and resells mortgages and mortgage purchase commitments in the form of mortgage-backed securities. Largest issuer of mortgage pass-through securities. GNMA debt is guaranteed by the full faith and credit of the U.S. government (one of the few agencies that are actually full faith and credit of the U.S. government).

Government Securities. An obligation of the U.S. government, backed by the full faith and credit of the government. These securities are regarded as the highest quality of investment securities available in the U.S. securities market. See "Treasury Bills, Notes, Bonds, and SLGS."

Government Sponsored Enterprise (GSE). Privately owned entity subject to federal regulation and supervision, created by the U.S. Congress to reduce the cost of capital for certain borrowing sectors of the economy such as students, farmers, and homeowners. GSEs carry the implicit backing of the U.S. government, but they are not direct obligations of the U.S. government. For this reason, these securities will offer a yield premium over U.S. Treasuries. Examples of GSEs include: FHLB, FHLMC, FNMA, and SLMA.

Government Sponsored Enterprise Security. A security issued by a Government Sponsored Enterprise. Considered Federal Agency Securities.

Index. A compilation of statistical data that tracks changes in the economy or in financial markets.

Interest-Only (IO) STRIP. A security based solely on the interest payments from the bond. After the principal has been repaid, interest payments stop and the value of the security falls to nothing. Therefore, IOs are considered risky investments. Usually associated with mortgage-backed securities.

Internal Controls. An internal control structure ensures that the assets of the entity are protected from loss, theft, or misuse. The internal control structure is designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that 1) the cost of a control should not exceed the benefits likely to be derived and 2) the valuation of costs and benefits requires estimates and judgments by management. Internal controls should address the following points:

1. **Control of collusion** - Collusion is a situation where two or more employees are working in conjunction to defraud their employer.

2. **Separation of transaction authority from accounting and record keeping** - A separation of duties is achieved by separating the person who authorizes or performs the transaction from the people who record or otherwise account for the transaction.

3. **Custodial safekeeping** - Securities purchased from any bank or dealer including appropriate collateral (as defined by state law) shall be placed with an independent third party for custodial safekeeping.

4. **Avoidance of physical delivery securities** - Book-entry securities are much easier to transfer and account for since actual delivery of a document never takes place. Delivered securities must be properly safeguarded against loss or destruction. The potential for fraud and loss increases with physically delivered securities.

5. **Clear delegation of authority to subordinate staff members** - Subordinate staff members must have a clear understanding of their authority and responsibilities to avoid improper actions. Clear delegation of authority also preserves the internal control structure that is contingent on the various staff positions and their respective responsibilities.

6. **Written confirmation of transactions for investments and wire transfers** - Due to the potential for error and improprieties arising from telephone and electronic transactions, all transactions should be supported by written communications and approved by the appropriate person. Written communications may be via fax if on letterhead and if the safekeeping institution has a list of authorized signatures.

7. **Development of a wire transfer agreement with the lead bank and third-party custodian** - The designated official should ensure that an agreement will be entered into and will address the following points: controls, security provisions, and responsibilities of each party making and receiving wire transfers.

Inverse Floater. A floating rate security structured in such a way that it reacts inversely to the direction of interest rates. Considered risky as their value moves in the opposite direction of normal fixed-income investments and whose interest rate can fall to zero.

Investment Advisor. A company that provides professional advice managing portfolios, investment recommendations, and/or research in exchange for a management fee.

Investment Adviser Act of 1940. Federal legislation that sets the standards by which investment companies, such as mutual funds, are regulated in the areas of advertising, promotion, performance reporting requirements, and securities valuations.

Investment Grade. Bonds considered suitable for preservation of invested capital, including bonds rated a minimum of Baa3 by Moody's, BBB- by Standard & Poor's, or BBB- by Fitch. Although "BBB" rated bonds are considered investment grade, most public agencies cannot invest in securities rated below "A."

Liquidity. Relative ease of converting an asset into cash without significant loss of value. Also, a relative measure of cash and near-cash items in a portfolio of assets. Additionally, it is a term describing the marketability of a money market security correlating to the narrowness of the spread between the bid and ask prices.

Local Government Investment Pool (LGIP). An investment by local governments in which their money is pooled as a method for managing local funds, (e.g., Florida State Board of Administration's Florida Prime Fund).

Long-Term Core Investment Program. Funds that are not needed within a one-year period.

Market Value. The fair market value of a security or commodity. The price at which a willing buyer and seller would pay for a security.

Mark-to-market. Adjusting the value of an asset to its market value, reflecting in the process unrealized gains or losses.

Master Repurchase Agreement. A widely accepted standard agreement form published by the Securities Industry and Financial Markets Association (SIFMA) that is used to govern and document Repurchase Agreements and protect the interest of parties in a repo transaction.

Maturity Date. Date on which principal payment of a financial obligation is to be paid.

Medium Term Notes (MTN's). Used frequently to refer to corporate notes of medium maturity (5-years and under). Technically, any debt security issued by a corporate or depository institution with a maturity from 1 to 10 years and issued under an MTN shelf registration. Usually issued in smaller issues with varying coupons and maturities, and underwritten by a variety of broker/dealers (as opposed to large corporate deals issued and underwritten all at once in large size and with a fixed coupon and maturity).

Money Market. The market in which short-term debt instruments (bills, commercial paper, bankers' acceptance, etc.) are issued and traded.

Money Market Mutual Fund (MMF). A type of mutual fund that invests solely in money market instruments, such as: U.S. Treasury bills, commercial paper, bankers' acceptances, and repurchase agreements. Money market mutual funds are registered with the SEC under the Investment Company Act of 1940 and are subject to "rule 2a-7" which significantly limits average maturity and credit quality of holdings. MMF's are managed to maintain a stable net asset value (NAV) of $1.00. Many MMFs carry ratings by a NRSRO.

Moody's Investors Service. One of several NRSROs that provide credit ratings on corporate and municipal debt issues.

Mortgage Backed Securities (MBS). Mortgage-backed securities represent an ownership interest in a pool of mortgage loans made by financial institutions, such as savings and loans, commercial banks, or mortgage companies, to finance the borrower's purchase of a home or other real estate. The majority of MBS are issued and/or guaranteed by GNMA, FNMA, and FHLMC. There are a variety of MBS structures with varying levels of risk and complexity. All MBS have reinvestment risk as actual principal and interest payments are dependent on the payment of the underlying mortgages which can be prepaid by mortgage holders to refinance and lower rates or simply because the underlying property was sold.

Mortgage Pass-Through Securities. A pool of residential mortgage loans with the monthly interest and principal distributed to investors on a pro-rata basis. The largest issuer is GNMA.

Municipal Note/Bond. A debt instrument issued by a state or local government unit or public agency.The vast majority of municipals are exempt from state and federal income tax, although some non-qualified issues are taxable.

Mutual Fund. Portfolio of securities professionally managed by a registered investment company that issues shares to investors. Many different types of mutual funds exist (e.g., bond, equity, and money market funds); all except money market funds operate on a variable net asset value (NAV).

Negotiable Certificate of Deposit (Negotiable CD). Large denomination CDs ($100,000 and larger) that are issued in bearer form and can be traded in the secondary market.

Net Asset Value. The market value of one share of an investment company, such as a mutual fund. This figure is calculated by totaling a fund's assets including securities, cash, and any accrued earnings, then subtracting the total assets from the fund's liabilities, and dividing this total by the number of shares outstanding. This is calculated once a day based on the closing price for each security in the fund's portfolio. (See below.)

[(Total assets) - (Liabilities)]/(Number of shares outstanding)

NRSRO. A "Nationally Recognized Statistical Rating Organization" (NRSRO) is a designated rating organization that the SEC has deemed a strong national presence in the U.S. NRSROs provide credit ratings on corporate and bank debt issues. Only ratings of a NRSRO may be used for the regulatory purposes of rating. Includes Moody's, S&P, Fitch, and Duff & Phelps.

Offered Price. See also "Ask Price."

Open Market Operations. A Federal Reserve monetary policy tactic entailing the purchase or sale of government securities in the open market by the Federal Reserve System from and to primary dealers in order to influence the money supply, credit conditions, and interest rates.

Par Value. The face value, stated value, or maturity value of a security.

Physical Delivery. Delivery of readily available underlying assets at contract maturity.

Portfolio. Collection of securities and investments held by an investor.

Premium. The amount by which a bond or other financial instrument sells above its face value. See also "Discount."

Primary Dealer. A designation given to certain government securities dealer by the Federal Reserve Bank of New York. Primary dealers can buy and sell government securities directly with the Fed. Primary dealers also submit daily reports of market activity and security positions held to the Fed and are subject to its informal oversight. Primary dealers are the largest buyers and sellers by volume in the U.S. Treasury securities market.

Prime Paper. Commercial paper of high quality. Highest rated paper is A-1+/A-1 by S&P and P-1 by Moody's.

Principal. Face value of a financial instrument on which interest accrues. May be less than par value if some principal has been repaid or retired. For a transaction, principal is par value times price and includes any premium or discount.

Prudent Expert Rule. Standard that requires that a fiduciary manage a portfolio with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. This statement differs from the "prudent person" rule in that familiarity with such matters suggests a higher standard than simple prudence.

Prudent Investor Standard. Standard that requires that when investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency. More stringent than the "prudent person" standard as it implies a level of knowledge commensurate with the responsibility at hand.

Qualified Public Depository - Per Subsection 280.02(26), F.S., "qualified public depository" means any bank, savings bank, or savings association that:

1. Is organized and exists under the laws of the United States, the laws of this state or any other state or territory of the United States.

2. Has its principal place of business in this state or has a branch office in this state which is authorized under the laws of this state or of the United States to receive deposits in this state.

3. Has deposit insurance under the provision of the Federal Deposit Insurance Act, as amended, 12 U.S.C. ss.1811 et seq.

4. Has procedures and practices for accurate identification, classification, reporting, and collateralization of public deposits.

5. Meets all requirements of Chapter 280, F.S.

6. Has been designated by the Chief Financial Officer as a qualified public depository.

Range Note. A type of structured note that accrues interest daily at a set coupon rate that is tied to an index. Most range notes have two coupon levels; a higher accrual rate for the period the index is within a designated range, the lower accrual rate for the period that the index falls outside the designated range. This lower rate may be zero and may result in zero earnings.

Rate of Return. Amount of income received from an investment, expressed as a percentage of the amount invested.

Realized Gains (Losses). The difference between the sale price of an investment and its book value. Gains/losses are "realized" when the security is actually sold, as compared to "unrealized" gains/losses which are based on current market value. See "Unrealized Gains (Losses)."

Reference Bills: FHLMC's short-term debt program created to supplement its existing discount note program by offering issues from one month through one year, auctioned on a weekly or on an alternating four-week basis (depending upon maturity) offered in sizeable volumes ($1 billion and up) on a cycle of regular, standardized issuance. Globally sponsored and distributed, Reference Bill issues are intended to encourage active trading and market-making and facilitate the development of a term repo market. The program was designed to offer predictable supply, pricing transparency, and liquidity, thereby providing alternatives to U.S. Treasury bills. FHLMC's Reference Bills are unsecured general corporate obligations. This program supplements the corporation's existing discount note program. Issues under the Reference program constitute the same credit standing as other FHLMC discount notes; they simply add organization and liquidity to the short-term Agency discount note market.

Reference Notes: FHLMC's intermediate-term debt program with issuances of 2, 3, 5, 10, and 30-year maturities. Initial issuances range from $2 - $6 billion with re-openings ranging $1 - $4 billion.

The notes are high-quality bullet structures securities that pay interest semiannually. Issues under the Reference program constitute the same credit standing as other FHLMC notes; they simply add organization and liquidity to the intermediate- and long-term Agency market.

Repurchase Agreement (Repo). A short-term investment vehicle where an investor agrees to buy securities from a counterparty and simultaneously agrees to resell the securities back to the counterparty at an agreed upon time and for an agreed upon price. The difference between the purchase price and the sale price represents interest earned on the agreement. In effect, it represents a collateralized loan to the investor, where the securities are the collateral. Can be DVP, where securities are delivered to the investor's custodial bank, or "tri-party" where the securities are delivered to a third party intermediary. Any type of security can be used as "collateral," but only some types provide the investor with special bankruptcy protection under the law. Repos should be undertaken only when an appropriate Securities Industry and Financial Markets Association (SIFMA) approved master repurchase agreement is in place.

Reverse Repurchase Agreement (Reverse Repo). A repo from the point of view of the original seller of securities. Used by dealers to finance their inventory of securities by essentially borrowing at short-term rates. Can also be used to leverage a portfolio and in this sense, can be considered risky if used improperly.

Safekeeping. Service offered for a fee, usually by financial institutions, for the holding of securities and other valuables. Safekeeping is a component of custody services.

Secondary Market. Markets for the purchase and sale of any previously issued financial instrument.

Securities Industry and Financial Markets Association (SIFMA). The bond market trade association representing the largest securities markets in the world. In addition to publishing a Master Repurchase Agreement, widely accepted as the industry standard document for Repurchase Agreements, the SIFMA also recommends bond market closures and early closes due to holidays.

Securities Lending. An arrangement between and investor and a custody bank that allows the custody bank to "loan" the investors investment holdings, reinvest the proceeds in permitted investments, and shares any profits with the investor. Should be governed by a securities lending agreement. Can increase the risk of a portfolio in that the investor takes on the default risk on the reinvestment at the discretion of the custodian.

Sinking Fund. A separate accumulation of cash or investments (including earnings on investments) in a fund in accordance with the terms of a trust agreement or indenture, funded by periodic deposits by the issuer (or other entity responsible for debt service), for the purpose of assuring timely availability of moneys for payment of debt service. Usually used in connection with term bonds.

Spread. The difference between the price of a security and similar maturity U.S. Treasury investments, expressed in percentage terms or basis points. A spread can also be the absolute difference in yield between two securities. The securities can be in different markets or within the same securities market between different credits, sectors, or other relevant factors.

Standard & Poor's. One of several NRSROs that provide credit ratings on corporate and municipal debt issues.

STRIPS (Separate Trading of Registered Interest and Principal of Securities). Acronym applied to U.S. Treasury securities that have had their coupons and principal repayments separated into individual zero-coupon Treasury securities. The same technique and "strips" description can be applied to non-Treasury securities (e.g., FNMA strips).

Structured Notes. Notes that have imbedded into their structure options such as step-up coupons or derivative-based returns.

Supranational. Supranational organizations are international financial institutions that are generally established by agreements among nations, with member nations contributing capital and participating in management. These agreements provide for limited immunity from the laws of member countries. Bonds issued by these institutions are part of the broader class of Supranational, Sovereign, and Non-U.S. Agency (SSA) sector bonds. Supranational bonds finance economic and infrastructure development and support environmental protection, poverty reduction, and renewable energy around the globe. For example, the World Bank, International Finance Corporation (IFC), and African Development Bank (AfDB) have "green bond" programs specifically designed for energy resource conservation and management. Supranational bonds, which are issued by multi-national organizations that transcend national boundaries. Examples include the World Bank, African Development Bank, and European Investment Bank.

Swap. Trading one asset for another.

TAP Notes: Federal Agency notes issued under the FHLB TAP program. Launched in 6/99 as a refinement to the FHLB bullet bond auction process. In a break from the FHLB's traditional practice of bringing numerous small issues to market with similar maturities, the TAP Issue Program uses the four most common maturities and reopens them up regularly through a competitive auction. These maturities (2, 3, 5, and 10 year) will remain open for the calendar quarter, after which they will be closed and a new series of TAP issues will be opened to replace them. This reduces the number of separate bullet bonds issued, but generates enhanced awareness and liquidity in the marketplace through increased issue size and secondary market volume.

Tennessee Valley Authority (TVA). One of the large Federal Agencies. A wholly owned corporation of the United States government that was established in 1933 to develop the resources of the Tennessee Valley region in order to strengthen the regional and national economy and the national defense. Power operations are separated from non-power operations. TVA securities represent obligations of TVA, payable solely from TVA's net power proceeds, and are neither obligations of nor guaranteed by the United States. TVA is currently authorized to issue debt up to $30 billion. Under this authorization, TVA may also obtain advances from the U.S. Treasury of up to $150 million. Frequent issuer of discount notes, agency notes, and callable agency securities.

Total Return. Investment performance measured over a period of time that includes coupon interest, interest on interest, and both realized and unrealized gains or losses. Total return includes, therefore, any market value appreciation/depreciation on investments held at period end.

Treasuries. Collective term used to describe debt instruments backed by the U.S. government and issued through the U.S. Department of the Treasury. Includes Treasury bills, Treasury notes, and Treasury bonds. Also a benchmark term used as a basis by which the yields of non-Treasury securities are compared (e.g., "trading at 50 basis points over Treasuries").

Treasury Bills (T-Bills). Short-term direct obligations of the United States government issued with an original term of one year or less. Treasury bills are sold at a discount from face value and do not pay interest before maturity. The difference between the purchase price of the bill and the maturity value is the interest earned on the bill. Currently, the U.S. Treasury issues 4-week, 13-week, and 26-week T-Bills.

Treasury Bonds. Long-term interest-bearing debt securities backed by the U.S. government and issued with maturities of ten years and longer by the U.S. Department of the Treasury.

Treasury Notes. Intermediate interest-bearing debt securities backed by the U.S. government and issued with maturities ranging from one to ten years by the U.S. Department of the Treasury. The Treasury currently issues 2-year, 3-year, 5-year, and 10-year Treasury Notes.

Trustee. A bank designated by an issuer of securities as the custodian of funds and official representative of bondholders. Trustees are appointed to insure compliance with the bond documents and to represent bondholders in enforcing their contract with the issuer.

Uniform Net Capital Rule. SEC Rule 15c3-1 that outlines the minimum net capital ratio (ratio of indebtedness to net liquid capital) of member firms and non-member broker/dealers.

Unrealized Gains (Losses). The difference between the market value of an investment and its book value. Gains/losses are "realized" when the security is actually sold, as compared to "unrealized" gains/losses which are based on current market value. See also "Realized Gains (Losses)."

Variable-Rate Security. A bond that bears interest at a rate that varies over time based on a specified schedule of adjustment (e.g., daily, weekly, monthly, semi-annually, or annually). See also "Floating Rate Note."

Weighted Average Maturity (or just "Average Maturity"). The average maturity of all securities and investments of a portfolio, determined by multiplying the par or principal value of each security or investment by its maturity (days or years), summing the products, and dividing the sum by the total principal value of the portfolio. A simple measure of risk of a fixed-income portfolio.

Weighted Average Maturity to Call. The average maturity of all securities and investments of a portfolio, adjusted to substitute the first call date per security for maturity date for those securities with call provisions.

Yield Curve. A graphic depiction of yields on like securities in relation to remaining maturities spread over a time line. The traditional yield curve depicts yields on U.S. Treasuries, although yield curves exist for Federal Agencies and various credit quality corporates as well. Yield curves can be positively sloped (normal) where longer-term investments have higher yields, or "inverted" (uncommon) where longer-term investments have lower yields than shorter ones.

Yield to Call (YTC). Same as "Yield to Maturity," except the return is measured to the first call date rather than the maturity date. Yield to call can be significantly higher or lower than a security's yield to maturity.

Yield to Maturity (YTM). Calculated return on an investment, assuming all cash-flows from the security are reinvested at the same original yield. Can be higher or lower than the coupon rate depending on market rates and whether the security was purchased at a premium or discount. There are different conventions for calculating YTM for various types of securities.

Yield. There are numerous methods of yield determination. In this glossary, see also "Current Yield," "Yield Curve," "Yield to Call," and "Yield to Maturity."

Appendix B
Investment Pool/Fund Questionnaire

1. A description of eligible investment securities, and a written statement of investment policy and objectives.

2. A description of interest calculations and how it is distributed, and how gains and losses are treated.

3. A description of how the securities are safeguarded (including the settlement processes), and how often the securities are priced and the program audited.

4. A description of who may invest in the program, how often, what size deposit and withdrawal are allowed.

5. A schedule for receiving statements and portfolio listings.

6. Are reserves, retained earnings, etc. utilized by the pool/fund?

7. A fee schedule, and when and how is it assessed.

8. Is the pool/fund eligible for bond proceeds and/or will it accept such proceeds?

pfm

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October 18, 2019

Dr. Scott R. Neils
CFO and Finance Director
City of Port Orange
1000 City Center Circle
Port Orange, FL 32119

Dear Dr. Neils,

As part of PFM's continued partnership with the City of Port Orange we are recommending the following updates to the City's Investment Policy and Process.

1) Investment Policy Review

On an annual basis, PFM reviews the City's Investment Policy as recommended by GFOA best practices. The City's investment policy contains all of the required sections per Section 218.415, Florida Statutes, all of the required sections necessary to be certified by the APT US & Canada, and all of the GFOA's best practice recommendations.

We are recommending an update to the minimum ratings requirement in the corporate sector. Our recommendation expands the allowable opportunity set which in turn can increase diversification within the sector. Your current policy allows for the two highest long term rating categories (AAA/AA). We suggest allowing the highest short term (A-1+/A-1) or the three highest long term rating categories (AAA/AA/A) by any one Nationally Recognized Statistical Ratings Organization.

2) Investment Portfolio Review

Earlier this year we worked with staff to provide a cash flow analysis. The purpose of the analysis is to identify an allocation between funds required for short-term cash needs and funds that could be invested longer-term to potentially generate higher rates of return.

This analysis is based on monthly cash balances by fund as provided by the City's finance staff. The funds are considered appropriate for possible longer-term investment strategies. The Cash Flow analysis indicates that the estimated core balance for all funds is $62,487,639, which may be invested in securities that have longer maturities, possibly earning a higher return. The analysis includes balances from the City's Investment Portfolio, FL Public Assets for Liquidity Management (or "FL PALM," formerly known as Florida Education Investment Trust Fund) account, and outside cash balances.

The cash flow model assumes a 20 percent cushion on the short-term cash needs leaving a core portfolio (the blue shaded area of the cash flows) carried over the analysis period. This cushion results in the model calculating a 20 percent decrease in the core value/portfolio, to provide a more conservative estimate of the core balance.

3) Safekeeping vs. Custody relationship

We recently had a conversation with SunTrust to discuss how the City's assets are actually held in custody. It was determined that the City is currently utilizing a "safekeeping" relationship with SunTrust and not a "custodial" arrangement. The safekeeping relationship is manually intensive and requires City staff to review each trade and submit approval and movement of funds to SunTrust via an electronic platform. All of these functions are typically performed by the custodian bank. While the process is burdensome it also is subject to errors as trade details are entered manually and if not entered in a timely manner can cause trades to fail between parties. Additionally, with this arrangement comes the inability to track excess cash in the portfolio leading to under/un-investment of proceeds, potentially reducing earnings to the City.

The more common/efficient relationship is utilizing a third party custodian. PFM believes that employing a third-party custodian that holds all securities in the City's name is in the best of interest of investors, as it helps avoid any conflicts of interest and provides transparency in terms of service arrangements and their associated fees. Under this arrangement, the custodian would receive trade instructions directly from PFM and work independently from PFM to settle the trades directly with the respective broker/dealers. PFM works with a number of different custodians and would be happy to assist the city in evaluating price proposals.

I would be happy to discuss these items at your convenience. Please reach out with any questions.

Best regards,

Jason C. Human
Client Manager

CITY COUNCIL AGENDA ITEM

REQUESTED COUNCIL MEETING DATE 10/22/2019

Consent item: No

SUBJECT: (6) County Fire Services Overview on Consolidation

DEPARTMENT: Fire/Rescue Services

GOAL:

RECOMMENDED MOTION:

SUMMARY: This will provide a Power Point briefing on the presentation given by the Volusia County Fire Chiefs Association regarding fire services consolidation at the September meeting of the Round table of Elected Officials.

Project No.: Funding Account No.:

Presenter:

ATTACHMENTS:

1.	County Fire Services Overview	County Fire Services Overview (3).pptx
2.	2010 Fire Study	FireStudy.pdf

Robin Fenwick	Created/Initiated - 10/9/2019
Ken Fustin	Approved - 10/9/2019
Jake Johansson	Approved - 10/10/2019
Robin Fenwick	Final Approval - 10/10/2019

Overview of VCFCA briefing at Roundtable of Elected Officials

October 22, 2019
Ken Fustin, Fire Chief
City of Port Orange

Possibilities of Fire and Rescue Services Consolidation in Volusia County

- Commissioned by:

  The Civic League of the Halifax Area

- Prepared by:

  TriData Division, System Planning Corporation of Arlington Virginia

Possibilities of Fire and Rescue Services Consolidation in Volusia County

- 6 months to complete
- 42 Participants
  - Community Leaders, City and County Finance Directors, Fire Chiefs,
  - TriData Staff
- 23 Recommendations
- Dire Predictions
  - 2010 Fire costs $85,000,000.00
  - 2018 Projected to be $164,000,000.00
    - **2018 Actual less than $90,000,000.00, or a $74,000,000 error….**
  - 2024 Projected to be $318,000,000.00
    - **2024 Actual TBD**

2010 and current Stakeholders

- Fire Chiefs from all municipalities as well as Volusia County
- Partners include:
  - Volusia County Emergency Medical Service
  - Volusia County Emergency Medical Administration
  - Volusia County Sheriffs Communications 911 Center
  - Daytona State College
  - Daytona International Speedway
  - State of Florida Division of Forestry
  - Volusia County Emergency Management

Types of Consolidation

- Administrative – Legally separate but consolidate administrative/staff functions.
- Functional - Departments remain legally separate but perform special functions as if a single consolidated department - i.e. apparatus maintenance, training, programs, etc.
- Operational - departments remain legally separate but join together both administrative and operation functions, delivering services as if they were one with boundaries becoming invisible.
- Full - two departments legally become a single legal agency with taxing authority with boundaries becoming invisible.
- Contract - A department can contract with another department to provide full or partial services.
- Merge - one department absorbs the other, resulting in a single entity.

Countywide Fire & Rescue Services Study 2010

- The 2010 TriData Survey had a total of 23 recommendations.
- Out of 23 recommendations, **<u>only 10 of the top 18 recommendations</u>** affected POFR.
- Recommendations 18-23 all related to the consolidation of the County 911 center and conceptual consolidation and/or creation of various fire protection districts throughout the County.

Recommendation #1

- Affected cities with F.S. Chapter 175 pension plans should develop a plan to lower their unfunded liability.

Action Taken:

- In 2012, the City Council imposed a new 2-tiered pension plan for our Firefighters, reducing future retirement benefits and increasing member contributions. As a result, our pension plan has seen steady improvements in unfunded liability since then.

Recommendation #2

- On report of an automatic fire alarm sounding, change dispatch protocols to send one (1) engine, with a minimum of three (3) firefighters, non-emergency. If the engine is staffed with less than three firefighters an additional unit or a battalion officer should be sent.

Action Taken:

- Completed and is agency specific based on operational needs.

Recommendation #3

- On a motor vehicle crash (without reported entrapment), change dispatch protocols to only send the appropriate closest unit unless information warrants additional units.

Action Taken:

- Completed and is agency specific based on operational needs.

Recommendation #4

- If no mergers occur, the larger departments should evaluate the impact of automatic/mutual aid services provided to smaller departments for which they receive no remuneration.

Action Taken:

- Automatic mutual aid has removed all boundaries for service.
- ****We rely on our smaller neighboring departments to provide us service when our units are on other emergent calls or in training. Our run cards and training schedule is built to maintain the best and closest coverage be available at all times**.

Recommendation #5

- The Fire Chiefs should agree to accept and implement a nationally-recognized Medical Priority Dispatch system.

Action Taken:

- Completed and is going through continual updates and improvements.

Recommendation #6

- Departments should determine how to use the combination of static and demand staffing and deployment to justify need for and cost of resources.

Action Taken:

- We are unaware of any fire departments that operate under a demand staffing deployment strategy. Fire Departments in Volusia County and throughout Florida continue to operate under static deployment methodology and associated minimum levels of organizational staffing.
- <u>****In fact, VC EMS recently met with POFR staff to discuss using two of our fire stations as “combination” posting locations for VC EMS resources.**</u>

Recommendation #7

- Cities should reevaluate their need to provide ALS-level first response. If response data indicates little benefit from providing first responder ALS, then cities should be allowed to reduce to BLS first response.

Action Taken:

- All cities who offered ALS level first response in 2010 continue to offer the same level of ALS service today and has become a community expectation.
- **Dr. Peter Springer, the County Medical Director <u>does not</u> endorse a downgrade in medical response capabilities.**

Recommendation #8

- Assign multiple units on an incident to the same tactical channel.

Action Taken:

- Completed

Recommendation #9

- Create a protocol where fire departments whose first responder vehicles have transport capability could transport patients under specific situations. This action may necessitate the issuance of a limited/modified COPCN.

Action Taken:

- Transport service was implemented thru the CARE agreement on April 15, 2019. POFR is one of five (5) municipal transport agencies in Volusia County, all operating under the CARE agreement.

Recommendation #10

- To provide for maximum efficiency, the County should merge all 911 resources under the VCSO.

Action Taken:

- Completed; however, Port Orange and neighboring cities have realized a **reduction in the quality of customer service** when the RCC was eliminated in favor of the VCSO 911 center.

Recommendation #11-17

- Recommendations 11-17 do not apply to Port Orange. (Relocating/adding/closing various fire stations)

Recommendation #18-23

- Recommendations 18-23 are combinations of conceptual merger ideas, none of which have ever transpired.

Current VCFCA Fire Efficiency Initiatives

- Standardized Response Protocols and MOG’s
- Automatic Aid Agreements
- Shared Assets (reserve apparatus, equipment, training aids)
- Joint Regional Training Center for the Southeast Region
- Shared Personnel and Programs (Juvenile Fire Setters, Investigations, Fire Explorers etc.)
- East Side Technical Rescue Team. Cities focus on a specific discipline and purchase/ maintain equipment for that discipline. All cities supply personnel.

2020 Efforts

- Currently Working on a Centralized EMS Supply Consortium
- Reducing unnecessary mandated medical supplies on non-transport apparatus due to shelf life and cost to replace.
- Cooperative Purchasing Contracts - 2020

Current VCFCA EMS Efficiency Initiatives

- Measured Nurse Home Response Protocol; No FD response to facilities with medically trained staff.
- Right-Sized Response; we send fewer resources to more calls.
- Enhanced Emergency Medical Dispatch (EMD); Nurse triage starts 12-9-19
- PLUS (Peak Load Utilization System) – Replaced by CARE
- CARE (Closest Ambulance Response Element) began 4-15-19
- Basic Life Support (BLS) Transport Vans
  - Phased out in favor of interfacility transfer ambulances
- Return to Service Waiver
  - Piloted successfully in Daytona Beach and Holly Hill; countywide soon.
- Taxicab Vouchers
  - Piloted successfully in Daytona Beach and Holly Hill; countywide soon.
- Nurse Triage
  - Implementation begins December 9, 2019

Questions

- Do the VCFCA initiatives of efficiency, enhancements of effectiveness, and shared efforts of a borderless yet autonomous system not already demonstrate our functional/operational consolidation?

<u>The VCFCA feels this exemplifies a very successful functional/operational consolidation.</u>

Final Report

Halifax Area Civic League

POSSIBILITIES OF FIRE AND RESCUE SERVICES CONSOLIDATION IN VOLUSIA COUNTY

July 2010

Prepared by:
TriData Division,
System Planning Corporation
3601 Wilson Boulevard, 5th Floor
Arlington, VA 22201

FINAL REPORT

Possibilities of Fire and Rescue Services Consolidation in Volusia County
Halifax Area Civic League

Submitted to:

Halifax Area Civic League
200 S. Beach Street
Ormond Beach, FL 32174

Submitted by:

Dr. Harold Cohen, Senior Program Manager
TriData Division, System Planning Corporation
3601 Wilson Boulevard, 5th Floor
Arlington, VA 22201
(703) 351-8300

July 2010

Table of Contents

ACKNOWLEDGEMENTS

TriData wishes to acknowledge those organizations and citizens who participated in this study. A special accolade is due to the Halifax Civic League Fire-Rescue Committee, a group of community business leaders and citizens who provided support and financial backing for the study.

Community Leaders

P.T. "Bud" Fleuchaus, DDS,	Halifax Civic League
Howard Tipton	Halifax Civic League
Robert Williams, D.L.	Senior VP Daytona State College, Halifax Civic League
Eugene Miller	Retired City Manager
Michael Abels, Ph.D.	University of Central Florida
Glenn Storch, J.D.	Halifax Civic League

City and County Finance Directors

Mike Robertson	Daytona Beach
Steve Whitmer	Daytona Beach Shores
James Seelbinder	DeBary
Kevin Lewis	DeLand
John McKinney	Edgewater
Kurt Swartzlander	Holly Hill
Althea Philord	New Smyrna Beach
Christine Davis	Orange City
Kelly McQuire	Ormond Beach
Jeaneen Clauss	Ponce Inlet
John Shelley	Port Orange
Christopher Campbell	South Daytona
Charlene Weaver	Volusia County Property Appraiser
Michael Mellon,	Executive Director EVAC
Peter Springer, MD	Emergency Medical Foundation
Morgan B. Gilreath, Jr.	Volusia County Property Appraiser

Volusia County Fire Chiefs[1]

Gary Hughes	Daytona Beach
Jim Bland	Daytona Beach
Stephan Dembinsky	Daytona Beach Shores
John McDanial	DeLand
Steve Cousins	Edgewater
Ron Spencer	Holly Hill
Dave McCallister	New Smyrna Beach
Herbert Hoffman	Orange City
Skip Irby	Ormond Beach
Dan Scales	Ponce Inlet
Tom Weber	Port Orange
Ken Burgman	Port Orange
Tad Derr	South Daytona
Jim Ryan	Volusia County

SPC/TriData Participants

The following SPC/TriData staff and consultants contributed to the project.

Philip Schaenman	Corporate Oversight
Dr. Harold C. Cohen	Project Manager
Michael Ertz	Primary Researcher
Markus Weisner	GIS and Data Manager
Maria Argabright	Senior Project Support
Alexis Bobrik	Project Support

[1] Deltona Fire Department's official position was not to participate in the study.

EXECUTIVE SUMMARY

The Halifax Area Civic League, comprised of active business and community leaders, commissioned this study. The League recognized studies and numerous reports generated by various professional fire and rescue staff within Volusia County in recent years have pointed out the duplication in the delivery of these services. Due to today's economic climate, the League believed it was timely to update operational and financial information and objectively begin frank public discussion on the subject. Furthermore, it is the belief of the League that the possibility of merging these services in some way would not only result in significant cost savings but, importantly, better service the entire Volusia community would also result.

In 2002, the Volusia Council of Governments employed TriData to perform a comprehensive system assessment for all fire and rescue services within Volusia County. At that time, the report stated, "Economies of scale could be improved in operations, training, prevention, communications and spans of control." The report further indicated the potential for significant cost saving by eliminating duplicate management structures, eliminating adjacent station houses and eliminating redundant fire apparatus.

In 2002, the combined expenditures for Fire/Rescue Services were $43.8 million. Today, that same services cost $85 million, an increase of 92.9%. This is partly due to high cost pension programs, too many fire stations, and general inflation. This does not include the approximate $18 million in operating expenses for EVAC Ambulance.

Our recommendation is for all departments to unify as a Dependent Fire District with Volusia County. It is easily achieved through inter-local agreements. Through attrition, it would lead to an overall savings of $5.7 million per year.

There are 16 incorporated cities or towns and combined with unicorporated Volusia County the estimated April 1, 2009 population was 507,105. Fire and Rescue Services are provided by 13 separate governmental fire agencies ranging in size from 9 firefighters and a fire chief in Ponce Inlet to Volusia County's 209 member department.

Fire Chiefs, their assistants, and finance directors provided the bulk of the data used to compile the report. Additional information was accessed from various web sites. City managers were provided a draft copy of their individual municipality's profile for their comments.

There are 59 fire stations, 740 authorized fire service positions, a combined operating budget of $80,483,565 and an additional $4,696,186 in capital cost or debt service budget for FY 09-10. We recommended the elimination of two stations and the relocation of two others.

The departments reported responding to 81,270 incidents in 2009, with only 2.6% of the incidents, 2,121 calls, as actual fires. Less than 1% of all responses were structure fires.

Volusia County Fire Services is a dependent fire district providing services primarily to the unincorporated areas of Volusia County and is mostly funded by a fire tax millage rate of 3.6651 plus an additional $1.32 million in general fund tax dollars. The city fire departments are funded as a component of their municipality's general fund. In order to fairly compare each service's cost, an equivalent fire tax millage rate was established for each fire rescue department.

The assumption is that a municipality merging with Volusia County's dependent fire district could reduce their general fund tax rate by the equivalent fire tax rate.

Numerous analyses are reported so as to compare various elements for each fire rescue department. Examples are: Population Density, Square Miles per Station, Human Resource Cost to include Cost per Capita, Cost per Employee and Pension Cost per Employee. In addition, for each city with a F.S. Chapter 175 pension plan we identify their pension fund's unfunded liability and debt per sworn member.

The pension analysis showed several cities with F.S. Chapter 175 pension plans have substantial unfunded liability. In one city, the unfunded pension liability is approximately 2.5 times more than the fire rescue department's annual operating budget. Combined, the total unfunded liability for the eight cities with F.S. Chapter 175 pension plans, is $59,222,765. We recommended these cities develop a plan to reduce this debt.

Fire chiefs' budget and attempt to staff their organization based on the potential big fire and not actually work load demand. Each chief takes pride in their organization and works within the limits of their budgets. Several of the smaller fire departments are unable to fight a fire in a single family dwelling without the assistance of their larger neighbors. In most situations, the larger cities are spending more dollars on their fire services but subsidizing the smaller cities. We recommend if no mergers occur, the larger departments must evaluate the impact of automatic/mutual aid services provided to smaller departments.

Debate still continues today as it did twenty years ago on who should provide ambulance transport. The study does not go into detail on EMS. Several recommendations are made that enhance the delivery of EMS in Volusia County without changing the current system.

A cursory review was made looking at the current communication/dispatch centers. There are currently five dispatch centers. Examples of how a 9-1-1 emergency call is routed before responders are dispatched are provided showing where miscommunication can cause delays in response. We recommend the County merge all 911 resources under the VCSO.

The initial scope of work requested the study examine two types of merged organizations. The first was for all cities to combine with Volusia County Dependent Fire District. The second was to look at creating a unified Independent Fire District. The Civic League's fire-rescue committee requested that additional types of merging models be explored taking into account the political differences that occur between the west and east sides of the county, as well as different philosophies between the northeast and the southeast.

In order to respect current employees, any conclusions or recommendations in this study were predicated on the constraint that no positions would be reduced except through attrition. All employed now would be employed within any merged system. Persons would be employed without loss of pay, but not necessarily in their current position or with their current rank.

For each merging model there is: a proposed organizational chart, proposed operating budget, an estimated tax millage rate, a revised organizational chart after personnel attrition, and a revised budget reflecting the leaner organization.

In August, 2005, a subcommittee of the Volusia County Fire Chiefs wrote a report titled, "Volusia Council of Governments TriData Study Update Fire EMS Services." The Chiefs stated, "Full consolidation is most efficient, but has the largest political barriers to overcome."

An alternative that addresses the above concern is the creation of an Independent Fire District with an appointed board. The organization would be identical to the Dependent District but the primary drawback is that the savings after attrition could be up to $1 million less than that achieved with the dependent district.

The success of any of the merged models is dependent on Volusia County's collaboration with the municipalities. Each of the smaller independent districts merge portions of Volusia's fire rescue services with the newly formed district. And if Volusia County does not join each district jurisdictional boundaries will continue to dictate misplaced fire station locations.

I. INTRODUCTION

On April 20, 1965, the Community Development Council changed its name to the Civic League of the Halifax Area. The League is a not for profit Florida corporation and is non-partisan with it roots from the National Civic League. Membership is comprised of active business and community leaders.

The League's purpose is in part, "The corporation is formed to study, confer and act upon any matter, economic in character, which may be deemed to affect the welfare of the Halifax Area of the County of Volusia, or the State of Florida and to support any educational or civic enterprise by the League to promote such welfare."

In August 2009, the League formed a subcommittee of the Growth and Economic Committee to discuss concerns regarding the redundancy of fire and rescue services and rising costs within the County. The committee met numerous times to discuss options and potential effects of some form of fire rescue service unification as a way to be more efficient and economical. Retired Fire Chief Mike Ertz was asked to serve on the subcommittee in an advisory capacity.

The League subsequently approached SPC/TriData, a professional fire and EMS consulting firm, to provide support for a fire service study. On January 6, 2010, TriData entered into contract with the Civic League of the Halifax Area. This report presents the results of our analysis.

Key Terms and Abbreviations

ALS (Advance Life Support) includes paramedic provided life-saving procedures including: the placement of advanced airway adjuncts, intravenous infusions, manual defibrillation, electrocardiogram interpretation, and drug therapy. In Volusia County, ALS treatment is provided by licensed paramedics and approved by the County Medical Director.

BLS (Basic Life Support) consists of essential lesser-invasive life-saving procedures performed by emergency medical technicians including: CPR, bleeding control, splinting, oxygen administration, ventilation, and basic airway management. Basic life support level certifications include emergency medical technician (EMT) and certified first responders.

CRA (Community Redevelopment Agency) is a dependent taxing district established by city government for the purpose of carrying out redevelopment activities that include reducing or eliminating blight, improving the tax base, and encouraging public and private investment in the *CRA*. Trust funds are created for each CRA district as a means of holding revenues to be reinvested in the CRA. The trust fund receives its revenue through tax increments which is made up of property taxes contributed by the city and county. The tax increment is calculated annually based on increases to property values within the designated CRA districts using the year in which they were established as the "base year". For example, if an unimproved property was valued at $10,000 in the base year and a new house is built on the property tomorrow, the new value of the property is $25,000. The incremental difference in value is $15,000. Taxes collected on the property will be split amongst the city, county and CRA according to these differences in value with the CRA receiving all taxes assessed on the incremental increase of $15,000.

Dependent Fire District is a "Special District" working within a limited boundary created by general law, special act or local ordinance. The membership of the governing body is identical to that of the governing body of a single county or single municipality. Volusia County Fire Services is a Dependent Fire District with taxing authority governed by the Volusia County Council.

Equivalent Fire Tax Millage Rate – Municipal fire departments are funded through cities' general operating funds. These funds may be a combination of ad valorem taxes, sales taxes, franchise fees, fines, permits and other user fees. The equivalent fire tax millage rate is the rate needed if the only source of revenue to fund the fire department were through property taxes. It is the amount that would be levied if the fire department were to be funded independently of the city's general fund. In theory, the city could reduce its ad valorem tax rate by the amount identified by the fire rate. For example, DeLand has a city tax millage rate of 5.050981. A property owner pays $5.050981 for every $1,000 of taxable assessed property value. DeLand's fire department equivalent fire tax millage rate is 2.4629. In theory, the city could lower its tax rate to 2.624081 if the fire department were to be funded separately and apart from the city's general fund.

First Due is the geographical area within the fire department's jurisdictional response zone where the closest fire station is programmed to respond to a fire rescue incident.

Independent Special Fire Control District – This is a special district created by special law or general law of local application, providing fire suppression and related activities within the jurisdictional boundaries of the district. With the exception of districts whose governing boards are appointed collectively by the Governor, the county council, and any cooperating city within the county, the business affairs of the district shall be conducted and administered by a five-member board.

ISO (Insurance Services Office) is a for-profit advisory organization that among other activities evaluates fire protection levels in communities throughout the United States. Insurance companies may use this information to help establish fire insurance property and casualty premiums. Some insurers and communities have deemphasized their reliance on ISO ratings because they are an incomplete rating system. (ISO is in the process of being updated to, among other things, reflect on prevention activities to a greater extent, and hardware on trucks less.).

Rating numbers range from 1 to 10 with a 1 being the best and 10 meaning no existing fire department. Many communities use the I.S.O. rating as a benchmark for measuring the effectiveness of their fire-protection services. Fire managers use it to assist in justifying expenses at budget time. According to a State Farm agent, research indicates that most large insurance companies currently do not rely on I.S.O but establish their own criteria to establish fire and casualty premiums. The agent also stated that there is no difference in premiums for a community rated 4, 5 or 6.

Net Operating Budget – As used in the report, net operating budget is the operating budget less the cost of the pension contribution.

Operating Budget – The total amount of funds budgeted for the fiscal year to pay for personnel services to include wages and benefits, equipment, maintenance, uniforms, and training. Not included are capital expenditures and debt service.

PSAP (Public Safety Answering Point) – The emergency communication center where 9-1-1 telephone calls are answered. This may or may not be the same location from which police, fire/recue or ambulances are dispatched.

Reaction Time – A fire department's reaction time is the time it takes for fire personnel, upon being notified of an incident, to react to the call and get the responding apparatus in motion. This is also called turnout time.

Response Time – A fire department's response time here is the total time from when the fire station's personnel are notified of an incident until the first fire department unit arrives outside on the scene of the incidents. (Sometimes response time is used to mean from receipt of call to arrival on the scene.)

Secondary PSAP – An emergency dispatch center where initial 9-1-1 calls are transferred to for police, fire/rescue or ambulance dispatch.

Unfunded Liability – It is an actual pension expense that will occur in the future and there is no present funding to cover it.

Background

Today's economic climate is challenging local government to budget for services that were once taken for granted. Citizens are demanding lower taxes and governments are reducing their work force or implementing hiring freezes.

As communities mature it becomes prudent to explore options that can enhance the delivery of fire and rescue services. The Halifax Civic League commissioned this study to examine the issues of economies of scale, duplication of services and effective uses of resources within Volusia County and its municipalities' fire and rescue services.

Over the years several Florida counties and municipalities have unified their fire and rescue services creating successful fire and rescue organizations to include Miami-Dade County, Orange County, and Palm Beach County. In Seminole County, Altamonte Springs and Winter Springs merged their fire rescue departments with the County via an interlocal agreement.

In 2002, the Volusia Council of Governments employed TriData Corporation of Arlington, Virginia to perform a comprehensive system assessment for all fire and rescue services within Volusia County. The TriData report stated, "Economies of scale could be improved in operations, training, prevention, communications, and management spans of control." The report further indicated the potential for significant cost saving by, eliminating duplicate management structures, adjacent station houses and redundant fire apparatus. The 2002 Report showed combined expenditures for Fire/Rescue Services to be $43.8 million. Today, that same service now costs $85 million, an increase of 92.9%.

These expenditures not include the approximate $18 million in operating expenses for EVAC Ambulance.

In 2005, the Volusia Council of Governments TriData Study Update on Fire EMS Services determined that a, "Full consolidation is most efficient, but has the largest political barriers to overcome."[2]

The Halifax Area Civic League Study, the subject of this report, analyzed the cost/benefit factors as well as legal issues in creating Independent Fire Districts versus utilizing Volusia County's current Dependent Fire District. The study recommended the most cost effective, efficient model as well as discussing other possible merger options. In addition other cost savings are identified applicable to current services.

This report details the expenditures and savings that each city and the County can realize by unifying their fire, rescue, fire inspection and related fire services through mergers.

Risk and Demand

Volusia County is the eleventh most populous County of Florida's 67 counties, encompassing 1,432 square miles with an estimated population of 507,105. The Deltona-Daytona Beach-Ormond Beach Metropolitan Statistical Area is the 101st largest metro area by population in the United States.

There are 16 incorporated cities or towns within the County. Fire/Rescue services are provided by 13 separate governmental fire agencies. Additionally, ambulance transport

[2] Volusia County Fire Chiefs. (2005). Volusia Council of Governments TriData Study Update Fire EMS Services. August 2005, Author.

is provided by EVAC, the countywide not-for-profit ambulance corporation. Approximately $3.1 million subsidy was budgeted by the County for EVAC in FY 09–10.

Between the 13 agencies there are 59 fire stations, 740 authorized fire service positions, combined operating budgets of $80,483,565 (FY 09–10) and an additional $4,696,186 in capital cost or debt services.

Combined, the Departments reported 81,270 "incidents" in 2009. Not all such incidents are emergency responses because some departments generate incident numbers when they conduct fire inspections or take someone's blood pressure when they walk into a fire station. Also, on emergency incidents where multiple agencies respond, each agency generates an incident report.. For example, a structure fire that occurred in Holly Hill in March required the services of four different fire rescue departments, each one generating their own incident number; one incident, four numbers.

The number of combined fire incidents for 2009 reported on our questionnaire, was 7,160 fires and 57,641 medical incidents, leaving 16,469 calls categorized as other. All fire departments in Volusia County report their incidents to the State on the Florida Fire Incident Reporting System, which is part of NFIRS, the national system.

According to the 2008 state report, Volusia County's fire departments responded to 2,088 fire incidents, 49,949 Rescue/EMS, 17,452 other types of incidents and 3,626 false alarms, for a total of 73,115 incidents. In addition, departments crossed jurisdictional boundaries 6,959 times providing mutual aid. The 2,088 fire incidents identified on the State report have subcategories. The classification and number of fire incidents associated with each subcategory are: Structure fire 499, Vehicle fire 330, Other 1,227 and Exposure 32.

For 2009 the local fire rescue departments reported on our questionnaire a combined total of 8,006 fires and 57,346 medical incidents. The difference with the information on the State Fire Marshal's report and the information provided by the departments is how the overall information is viewed when limiting the number of categorical choices. More sophisticated data analysis would reduce data conflicts and errors because it will reflect better accuracy in determining what exactly the fire service does.

On the state reporting system, a fire is an actual fire where the fire department had to take aggressive action to put the fire out. That fire could be a building, vehicle, brush or even a dumpster. NFIRS considers a fire, regardless of intensity, even if out on arrival as a fire. Fires reported on the TriData Questionnaire include the above but also a power line down, gasoline spill, fire false alarm , an authorized controlled burn or an out of jurisdiction response where the mutual aid department was cancelled before arrival.

In 2008, Volusia County experienced five fire fatalities, and in 2009, there were three. In 2008 there were 75 injuries resulting from fire or fire related incidents. In 2009 there were 78 fire related injuries.

In total, the departments reported 81,359 incidents for 2008. Utilizing the percentages based on the 2008 Florida Fire Incident Report, our 2009 estimate, of actual fires was 2,121; rescue and EMS was 50,751, other types of incidents was 17,733, false alarms 3,684 and mutual aid provided 7,070 times. The actual percentage of fires to total calls was approximately 2.6%, with only 488 (0.06%) being actual structure fires.

II. FIRE DEPARTMENT PROFILES

There are 13 fire departments in Volusia County with a total of 59 fire stations. Each department profile below identifies key statistical information, including; population and square miles of the city, number of fire stations, number of personnel, and data relative to the fire department's operating budget.

Daytona Beach

The City of Daytona Beach, with an ISO rating of 4, is the second largest city in Volusia County based on population but the largest in square miles at 58.7. The City's population on April 1, 2009 was estimated at 65,208 a decrease of 281 from the previous year. The city grew by 1.7% since the 2000 U.S. Census when the population was recorded at 64,112.

The City's Fire Department staffs seven fire stations. Two stations are located on beachside and five stations on the mainland. The Department has 123 positions with 103 personnel assigned to the field. At full staffing, the Department staffs six engines, two rescue units, a squirt, a tower truck and one battalion chief. Nine of the ten units are ALS capable. Minimum on-duty staffing is 28, thereby reducing the number of rescue units from two to one and reducing the staffing on the tower from two to one. Staffing is never reduced below three on the engines or the squirt. A minimum of eight paramedics and nine driver engineer positions are filled at all times.

Between 2007 and 2009 the number of incidents the fire department responded to averaged 17,448. There were 17,336 in 2007 and 17,701 in 2009. The department's average response time to incidents in 2009 was 5 minutes 6 seconds.

In 2007, the Department responded out of jurisdiction 592 times. In 2008 the number of out of jurisdiction incidents increased to 963 and slightly decreased to 942 in 2009. Combined, Volusia County, Daytona Beach Shores and Holly Hill account for 85.77% of Daytona's out of jurisdiction incidents in 2009.

The Department's 2009 operating budget was $12,720,531 a decrease of $264,677 from the previous year. The net operating budget decreased by $359,186 due to a 5.5% increase in required city's pension contribution. The City participates in a Florida State Chapter 175 pension plan. In FY 08–09, the cost to maintain actuarial soundness was $1,722,492 or 13.26% of the operating budget. For FY 09–10, the cost to maintain actuarial soundness is budgeted at $1,817,000 or 14.28% of the operating budget.

The true cost of a pension is its relation to the fire department salaries. The amount of money budgeted to maintain actuarial soundness of the pension fund is a percentage of salaries that can be expressed **as** the pension cost to salary ratio. In FY 08–09, the pension cost to salary ratio was 28.97%. The ratio increased to 30.56% for FY 09–10.

The City has maintained the same 5.42746 tax millage rate for the past two years. For FY 09–10, estimated revenues at 96% collection rate are projected to be $22,716,121. This is a 20.84% decrease, or $5,981,449 from FY 08–09.The City is further projecting another 15% property value decrease for the FY 10–11 budget. To produce the same property tax revenue at a near 100% collection rate, the City would have to establish a tax millage rate of 6.0245.The Fire Department's operating budget equates to a tax millage rate of 3.0377 at a 96% collection rate which is 55.96% of the City's ad valorem tax rate. The Department shows no debt service or capital cost for FY 09–10. There was a $78,185 capital expenditure in FY 08–09 to purchase radios, cardiac monitor and an Amkus Extraction Rescue Tool.

Daytona Beach Shores

The City of Daytona Beach Shores, with an ISO rating of 5, located on a barrier island, had an estimated population of 5,475 on April 1, 2009, an increase of 14 persons over the previous year. The City encompasses .97 square miles. The City experienced a 27% increase in growth since the 2000 U.S. Census adding an additional 1,176 residents.

The City operates a Public Safety Department. Public Safety Officers provide fire, EMS and law enforcement services. The Department is authorized 34 personnel, with three open positions. All field personnel are or will be certified in fire, EMT/ Paramedic, and law enforcement. There are 21 patrol officers who are the primary Fire and EMS personnel. The 5 criminal investigators as well as certified administrative staff will also respond to incidents if needed. The department has 16 reserves who are primarily single certified either in law enforcement or fire.

Law enforcement dictates the Department's primary duties. Personnel work a 12 hour shift and are assigned to one of four shift platoons. The fire station has no sleeping quarters, with one person assigned to the fire engine during each shift. The City has a contract with Volusia County to provide fire and rescue services to the unincorporated community of Wilbur-By-The-Sea, and a small section that lies to the west of the City's boundary and the Halifax River. The amount of the annual contract is $166,429.

The number of fire and EMS incidents responded to in 2007 was 1,591, and in 2008 was 1,500. In 2009 the total number of incidents decreased slightly to 1,437. The Department's average response time to fire related incidents is 4:28 minutes and 3:28 for EMS calls.

The Department's Public Safety operating budget for FY 09–10 is $4,381,800, a decrease of $58,800 from the previous year. The financial questionnaire indicates the fire and EMS services portion of the FY 09–10 operating budget is $1,450,654 or 33% of the total public safety budget.

The City participates in the Florida State Retirement System. For FY 09–10, the pension contribution required for Public Safety is $450,900 with $256,545 attributed to fire and EMS. Pension cost in relation to salaries was equal to 21.5% of payroll for FY 08–09. For 09–10, the budgeted pension liability increased to 23.3%.

The City's tax millage rate went from 4.17985 in FY 08–09 to 4.9972 in FY 09–10. The assessed taxable property values in FY 08–09 were $1,858,473,000, which would generate $7,768,138 revenue. For FY 09–10 assessed taxable property values decreased by 23.5% with resulting revenues of $7,106,967 at a 100% collection rate. The City is projecting a 20% drop in assessed taxable values with a potential tax rate of 6.16 mils for the budget year beginning October 1, 2010, in order to generate the approximate same revenue as FY 09–10.

The fire and EMS portion of the budget accounts for 33% of the total public safety budget. This equates to 11 personnel. It is estimated for the City to operate separate police and fire departments the City would require 22 law enforcement positions.

Utilizing the above criteria, the fire department's equivalent tax millage rate is 1.0736 at a 95% collection rate which is 21.48% of the City's ad valorem tax rate. Capital cost and debt service are not part of the operating budget. Capital cost in FY 08–09 and FY 09–10 was $207,849. Debt service in FY 08–09 was $202,825 and for FY 09–10 it is $202,560.

DeLand

The City of DeLand is the Volusia County seat encompassing 18.8 square miles, with an ISO rating of 4. The estimated population on April 1, 2009 was 27,123, a decrease of 203 from the previous year. DeLand grew by 29.75% since the 2000 U.S. Census, when the population was recorded at 20,904. The City's Fire Department staffs three fire stations, the oldest and headquarters station at 201 West Howry Ave. was constructed in 1975. Stations 82 (257 W. International Speedway Blvd.) and 83 (1655 East Taylor Rd.) were built in 2003 and 2007.

The Department has 47.5 authorized positions but funds 44.5. There are 40 personnel assigned to the field. Personnel staff three BLS engines, a ladder truck and a division commander. Minimum daily staffing is ten including the commander. Staffing may go to a low of 2 persons per engine and 3 on the truck. However, on most days staffing is greater than 10 due to the Department's commitment to maintain a minimum number of company officers and drivers on duty.

The number of incidents responded to in 2007 to 2008 increased by 6.25%, from 6,572 to 6,983. In 2009, the number of responses decreased slightly to 6,920.The number of incidents, included in the above totals, that were out of jurisdiction but where DeLand was first due has been steadily increasing from 6.46% of the call volume in 2007 to 14.69% in 2009. The department's average response time in 2009 was 5 minutes 13 seconds.

Station 82 had a total of 1,111 first due responses in 2009. Out of jurisdiction first due accounted for 38% of the incidents. Station 83's out of jurisdiction first due incidents was 30% of their first due calls.

The Department's revised operating budget for FY 09–10 is $3,505,293, a decrease of $162,714 from FY 08–09. However, due to an increase in pension cost, the effect on the Department's net operating budget was reduced by $258,758.The City has a F.S. Chapter 175 pension plan that covers all full-time, fire certified personnel except the fire chief. The fire chief is covered by a deferred compensation plan. In FY 08–09 the cost to maintain actuarial soundness of the pension plan was $325,367 or 8.9% of the operating budget. The cost for FY 09–10 increased to $422,745 or 12% of the operating budget.

The true cost of a pension is its relation to the fire department salaries. In FY 08–09, the cost to salary ration was 11.4%. The ratio increased in FY 09–10 to 15.2%, still one of the lowest contribution rates in Volusia County.

The City's property tax millage rate in FY 08–09 was 5.05098l, had assessed taxable values of $1,819,141,808, generating $8,715,677 at a 95% collection rate. For FY 09–10, the millage rate was established at 5.9995, with assessed taxable values decreased by 16.7%, or $304,497,995 resulting in projected property tax revenues of $8,623,567.

The fire department's operating budget equates to a millage rate of 2.3397 based on a 100% collection rate. Since the City budgets at a 95% collection rate, the fire department's equivalent tax millage rate would be 2.4629 which is 41.05% of the City's ad valorem tax rate.

The above budgetary data and corresponding fire department millage rate does not include the Department's capital cost or debt service. The department showed no capital cost for FY 09–10 and $30,000 in FY 08–09. The debt service, $310,317 in FY 08–09 and $310,504 for this year is for a fire station constructed in 2007. Fire impact fees are pledged toward the stations debt service.

Deltona

The City of Deltona, with an ISO rating of 4, is Volusia County's largest municipality with an estimated April 1, 2009 population of 84,264. This is a decrease of 1,657 residents from the previous year. The City grew by 21.2% or 14,721 residents since the 2000 U.S. Census.

The City's fire department staffs four fire stations within their 35.8 square miles. The City has plans to award a contract for a fifth station in the vicinity of Howland Blvd. and Catalina Blvd. around July 2010.The Department has 94 personnel with 69 assigned to the field. Eleven personnel are assigned to the Communication Division. (Note: Deltona is the only municipality that dispatches its own fire department. They also are contracted to dispatch Orange City's Fire Department.) The Department staffs five ALS engine companies and one truck company. Minimum staffing on an engine is three personnel and two on the truck. In order to reduce overtime, and until Station 65 is complete, Engine 65 is taken out of service and two persons assigned to staff a rescue unit.

Deltona's rate of incidents dropped slightly from 8,115 calls in 2007 to 7,851 in 2009. The Department provided no first due, out of jurisdiction run data. According to the City's budget document, the Department had an average response time noted for FY 08–09 of 6:10 minutes for structure fires.[3]

The Department's operating budget for FY 09–10 is $8,624,470 which is basically the same as the previous year. The Department's net operating budget decreased by $141,077 in FY 09–10 due to a $125,247 increase in city funded pension contributions.

The City has a F.S. Chapter 175 pension plan for 77 sworn fire personnel and another type of plan for their remaining seventeen employees. In order to attribute an accurate assessment of pension cost as reported in the other municipalities' profiles requires additional information from the City. This information is not readily available since the City has gone on record stating in an email, "Please be advised that the Deltona City Commission has directed us to reply to requests regarding this study in this manner and that we are NOT to actively participate in the study. This study was commissioned by a private civic group which has no ties to Deltona. We were not a participant in developing the scope of work, or any of the details of how the data would be manipulated." The email concludes the City's position is stated above and their lack of desire to participate.[4]

According to the County Property Appraiser the City's tax millage rate in FY 08–09 was 4.15329 mils, had an assessed taxable value of $3,077,055,813 resulting in $12,140,909 revenue at a 95% collection rate. In FY 09–10, assessed taxable values decreased by $698,566,732, the millage rate increased to 5.43755 with corresponding revenue of $12,341,023 at 95%. [5]

The Fire Department's operating budget equates to a millage rate of 3.8 at a 95% which is 69.88% of the City's ad valorem tax rate. (Deltona's budget document did not identify a separate cost to operate their communications division. Being the only municipality that operates their own fire dispatch center increases the operating expense resulting in a very high equivalent fire tax millage rate).

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[3] City of Deltona. (2009) City of Deltona Annual Budget for Fiscal Year 2009/2010. (Adopted on 9/21/2009). Available [On-Line]. http://www.deltonafl.gov/go/deltona-sections/departments/finance-and-internal-services/budget-documents.

[4] E-mail to TriData from the City of Deltona.

[5] City of Deltona (2009). Available: [On-Line].

The above budgetary data and corresponding fire department millage rate does not include the Department's capital cost or debt service. Capital cost in FY 08–09 was $411,000 and $379,000 in 09–10. No debt service was noted.

Edgewater

The City of Edgewater, ISO rating 5/9, had an estimated population on April 1, 2009 of 21,394, a decrease of 224 from April 2008. The city grew 14.6% since the 2000 U.S. Census.

The City staffs two fire stations located within the municipalities 22.2 square miles. Station 55, located at 1605 S. Ridgewood was constructed in the late 1950's and is in need of replacement. Station 57, located at 2628 Hibiscus Dr. was built in 1998.

The Department has 31 career personnel and 16 volunteers. Twenty-seven career personnel are assigned to the field. Nine personnel enable the Department to staff two engines, a transport type rescue and a battalion chief. Minimum daily career staffing is 6, providing for two ALS engines. Qualified, available volunteers augment the career personnel permitting the Department to shuffle personnel in order to staff the rescue and battalion chief positions.

Fire and EMS incidents have remained steady for three years. The number of incidents reported in 2007 was 3,009, 2,932 for 2008, and 3,055 in 2009. The City has a contract with Volusia County for $240,000 to provide services to abutting unincorporated areas in order to assure a closest unit response. The Department's average response time is 4 minutes 12 seconds.

The Department's operating budget for FY 09–10 is $2,652,502, a decrease of $89,249 or 3.2%. The operating budget less the pension increase cost resulted in net operating being reduced by $115,117 from the previous year. The pension cost in FY 08–09 was 10% of the operating budget. In FY 09–10, the pension consumed 11.2% of the operating budget.

Edgewater has a F.S. Chapter 175 pension plan. In FY 08–09, the cost to salary ratio was 10.86%. The ratio increased in FY 09–10 to 11.46% which is the lowest contribution rate in Volusia County.

In FY 08–09 the City had a tax millage rate of 5.9. Assessed taxable values were $981,617,652 with resulting revenue of $5,791,544. In FY09–10, assessed taxable values dropped 16.2%. The City established a tax rate of 6.36 with projected revenues of $4,968,598, a decrease of 14.2%. The City is expecting a 15.5% drop for FY 10–11 assessed taxable values, with a projected tax millage rate of 5.9 resulting in $3,894,802 revenue at a 95% collection rate.

The fire department's equivalent fire tax millage rate is 3.3953 mils which is 53.38% of the City's ad valorem tax rate. The above budget data and corresponding fire department millage rate does not include any debt service or capital costs. The Department budgeted $210,000 for capital cost in FY 09–10. Capital cost in FY 08–09 was $53,125. The Department showed no debt service.

Holly Hill

The City of Holly Hill, with an ISO rating of 6, consists of 3.89 square miles and an April 1, 2009 estimated population of 12,851 residents. This is a decrease of 93 from the previous year's estimate. The City grew by 6% since the 2000 U.S. Census when the population was recorded at 12,119.

The fire department consists of 14 authorized positions, with one field position vacant. The Department staffs one ALS engine with 11 field personnel. Minimum staffing is two personnel on the engine.

Holly Hill's incident rate has steadily declined over the last three years by 21.4%. In 2007, the Department responded to 2,776 calls. In 2008 the number of incidents was 2,594 and 2,183 in 2009. The Department responded to 178 first due out of jurisdiction calls in 2009, which was 3.5% of the total incidents. The incidents were divided between Daytona Beach (21), Volusia County (74) and Ormond Beach (83).

The Fire Department's operating budget from FY 08–09 to 09–10 increased slightly from $1,313,200 to $1,321,154. However, the department had 3.2% less operating money for FY 09–10 due to a 30% increase in required city pension contributions. The Department has a F.S. Chapter 175 pension plan. In FY 09–10, the pension contribution accounted for 14.5% of the operating budget as compared to 11.25% in FY 08–09.The true cost of a pension is its relation to fire department's salaries. In FY 08–09, the cost to salary ratio was 21.44%. Based on FY 09–10's first six month's payroll, the cost to salary ratio is expected to be 27.81%.

The City's tax millage rate in FY 08–09 was 4.8872. The taxable assessed value was $714,232,979 generating $3,316,069 at a 95% collection rate.

Holly Hill was the only municipality whose taxable assessed value increased in FY 09–10. This was due to two new condominium towers, located in their Community Redevelopment Area (CRA), added to the tax roll. However, this did not increase the tax value to the general fund since the incremental tax increase collected within the CRA can only be used in the CRA. As such, the taxable assessed values increased to $821,060,332, but the City established a tax rate of 5.7258 to generate $4,466,165 in revenue with only $2,468,200 applied to the general fund.

The City's budget document for FY 09–10 showed $2,468,200 in general fund revenue from ad valorem taxes. Utilizing this amount, the fire department's equivalent fire tax millage rate is 3.064 which is 53.51% of the City's ad valorem tax rate. The Fire Department has no debt service and only a minimal capital cost budget of $1,000 for FY 09–10, which is not part of the operating budget.

New Smyrna Beach

As of April 1, 2009, the City of New Smyrna Beach had an estimated population of 23,449, a decrease of 267 residents from the previous year. The City's population grew 16.96% since the 2000 U.S. Census when the population stood at 20,048. The City encompasses 38.28 square miles and has a 4/9 ISO rating.

The Fire Department staffs four ALS fire stations. Stations 51 (151 Williamson Blvd.) and 52 (500 3rd Ave.) are new with Station 53 (1400 N. Dixie Hwy) being replaced with an expected completion date of July 2010. The main station, Station 50 (103 Faulkner St), located downtown, was constructed in 1948 and is in dire need of replacement.

The Fire Department has 46 personnel with 42 assigned to the field. The Department maintains three person minimum staffing plus the battalion chief. The aerial tower is located at Station 51 on Williamson Blvd and is not routinely staffed. The three person crew responds to structure fires with the truck, otherwise, on all other calls the engine responds.

In 2007, the Department responded to 4,661 incidents, dropping in 2008 by 4.9% to 4,442 calls, than slightly increasing in 2009 to 4,482 calls. The Department's average response time, which is fire department notification to arrival, is 4 minutes 46 seconds.

Of special interest is Station 51's out of jurisdiction call volume. The Station is an expansion station that was constructed in 2005 to principally serve a large development west of Interstate 95. First due incidents in 2007 were 314. In 2008, first due calls totaled 332 and 262 in 2009. The three year total of first due alarms within the City was 908. The three year total of first due alarms out of jurisdiction totaled 735 or 44.7% of the station's first due call volume. In 2009, approximately every other call was for an incident out of jurisdiction. The majority of out of jurisdiction incidents are in unincorporated Volusia County.

The Department's operating budget in FY 09–10 was $5,134,204 a decrease of 7% or $365,074 from FY 08–09.The City has a F.S. Chapter 175 pension plan. In FY 08–09 the City contributed $921,784 to maintain actuarial soundness. For FY 09–10, the City has budgeted $955,025 which is 18.6% of the operating budget. The contribution percentage when compared to salaries subject to pension cost was 34.8% in FY 08–09. For FY 09–10, the cost to salary ratio is 37% which is the highest contribution rate in Volusia County.

In FY 08–09, the City had a millage rate of 3.1, assessed taxable values of $3,443,228,086, with general fund ad valorem revenues of $9,482,407. For FY 09–10, assessed taxable values dropped 20%; the City established a 3.4793 millage rate and projecting ad valorem general fund revenues of $8,701,336, a $556,470 revenue decrease from the previous year.

As the City prepares for FY 10–11 projections indicate a 16% decrease in assessed taxable property values with an additional loss of $314,668 provided the tax millage rate remains the same. The fire department's equivalent fire tax millage rate is 1.7891 which is 51.42% of the City's ad valorem tax rate.

The above budgetary data and corresponding fire department millage rate does not include any capital cost or debt service. The City has made substantial investments in upgrading their fire service facilities. In 2005 the City opened Station 51 at a cost of approximately $2 million. In 2005 the City issued a general obligation bond that included funds to replace three existing fire stations. The fire department's debt service portion was $511,969 in FY 08–09 and $510,961 for FY 09–10.

Orange City

The City of Orange City is Volusia County's only municipality to see substantial growth in 2009. The estimated population on April 1, 2009 was 10,203, an increase of 6.77%, or 647 residents from the previous year. The City experienced 54.5% growth since the 2000 U.S. Census when the population was 6,604. The City has an ISO rating of 5/9, covering 6.98 square miles.

Orange City began providing fire and rescue services to the City of DeBary on November 6, 2009, providing fire rescue services to an additional 18.2 square miles with 18,741 residents. DeBary pays Orange City $883,915 for the service.

The Department staffs three ALS engines; two in Orange City and one in DeBary. The Department has 28.5 positions with 24 assigned to the field. Minimum staffing on the Orange City units is two personnel and three on the DeBary unit. An Orange City lieutenant holds the position of battalion commander placing the minimum shift staffing at eight.

In 2007 and 2008, the Department responded to 3,490 and 3,418 incidents. In 2009, the total number of incidents increased by 29.6% or 1,013 incidents. The number of incidents in DeBary in 2008 was 1,446 and 1,214 in 2009.

A fair comparison of budgets between FY 08–09 and FY 09–10 cannot be made due to Orange City taking on the responsibility for the City of DeBary's fire services. Prior to November 6, 2009, DeBary's fire protection was provided by Volusia County Fire Services.

In FY 08–09, the Department's operating budget was $1,565,475 which was 52.5% of the property tax revenues collected. For FY 09–10, the Department's operating budget is $2,261,140 which is 55.7% of the property tax revenues plus the DeBary contract price.

The City's pension cost increased in FY 09–10 by $75,000 over FY 08–09. However, the Department added nine firefighters who were previously employed by Volusia County as part of the DeBary contract. The City participates in the Florida State Retirement System. The pension cost in relation to salaries was 23.85% of payroll in FY 08–09 and 24.14% for FY 09–10.

Orange City's tax millage rate in FY 08–09 was 4.48. Revenue generated from assessed taxable property values of $780,277,638 was $2,980,730. In FY 09–10, assessed taxable values dropped by 15%. However, property tax collections increased due to a millage rate of 5.1953.

For FY 10–11, the City expects an additional 10% decrease in assessed taxable values. To calculate the fire department's equivalent tax millage rate, $774,100 in expenditures associated with the DeBary contract is deducted from the Department's $2,261,140 operating budget. The millage rate at 100% collection rate would be 2.2429. The City budgets at a 95% collection rate, making the equivalent fire department millage rate 2.36 which is 45.42% of the City's ad valorem tax rate. The above budgetary items and corresponding fire department millage rate does not include any capital items. In FY 08–09 $56,000 was spent for required equipment. For FY 09–10, $42,000 was required to equip the DeBary Station with necessary gear, radio/chargers and computer.[6]

Ormond Beach

The City of Ormond Beach has an ISO rating of 4/9. On April 1, 2009, the estimated population was 40,832, a decrease of 88 residents from the previous year. The City has seen an 11.1% population growth since the 2000 U.S. Census when the population was 36,301.

The City's Fire Department staffs four relatively new fire stations located within the City's 25.7 square miles. The Department has 55 authorized positions but only funds 49. There are 45 personnel assigned to the field. Personnel staff four ALS engines and a division chief who works a 24-48 hour shift. Minimum staffing is three personnel per engine.

The number of incidents reported for the years 2007 through 2009 has remained basically constant. In 2007 the Department had 5,602 incidents, 5,676 in 2008 and 5,566 in 2009. All incidents reported where dispatched through the communication center or as a silent alarm whereby the incident was witnessed or called in directly to the fire department.

The Department tracks average drive time for each station for all first due emergency responses. These averages do not include non emergency responses, cancelled

[6] Note of interest: DeBary's equivalent fire tax millage rate equates to a low 0.5219.

en-route, automatic aid, mutual aid, or any other calls outside the first due response area. Drive time, is the recorded time when the fire engine initiates its response, typically known as "wheels moving", until the first due unit arrives on the scene. Drive times for each station are as follows.

Table 1: Drive Times for Ormond Beach Fire Dept.

Station	Address	Incidents	Average Drive Time
Station 91	364 S Atlantic Ave.	355 incidents	2:54 min/sec
Station 92	189 S Nova Rd.	1059 incidents	3:24 min/sec
Station 93	300 Wilmette Ave.	614 incidents	3:13 min/sec
Station 94	2301 Airport Rd.	328 incidents	5:56 min/sec

The average drive time is 3 minutes, 38 seconds. The Department has an average reaction time of 1:07, bringing the overall average response time to 4 minutes 45 seconds.

The number of incidents, included in the above totals which were out of jurisdiction, but where Ormond Beach was first due has steadily increased from 7.9% of the call volume in 2007 to 11.5% in 2009.Of special interest is Fire Station 94's (2301 Airport Rd.) out of jurisdiction call volume. In 2007, 68 or 9.2% of the calls Station 94 responded to were out of jurisdiction. In 2009, Station 94 responded out of jurisdiction 249 times, 26% of their first due responses.

The Department's operating budget for FY 09–10 is $5,690,070, an increase of $15,530 over FY 08–09. However, due to a substantial increase in pension cost, the operating budget less pension cost was $304,592 less than what it was in FY08–09. The City has a F.S. Chapter 175 pension plan. In FY 08–09 the cost to maintain the pension plan's actuarial soundness was $617,233 or 10.9% of the operating budget. The cost to maintain the pension for FY 09–10 is 16.4% of the operating budget or $937,355. The true cost of a pension is its relation to fire department's salaries. In FY 08–09, the cost to salary ratio was 17%. The ratio increased to 27.4% for FY 09–10.

The City has maintained a 3.80968 tax millage rate for the past two years. In FY 08–09 property taxes provided $12,444,188 in revenue. In FY 09–10 revenues are projected to be $10,803,882, a decrease of 13.2%, a result of assessed taxable values dropping.

The City is preparing the FY 10–11 budget. Projected property values will decline another 15%, further reducing property tax revenues by $1,620,797 if the same tax millage rate is applied as in the previous two years.

The fire department's operating budget equates to a millage rate of 1.926, at a collection rate of 100%. The City calculates their collection rate at 96% which would require a fire department millage rate of 2.0276 which is 53.22% of the City's ad valorem tax rate. The above budget details and corresponding fire department millage rate does not include the Department's capital cost or debt service. In FY 08–09 the capital cost was $811,155 and $949,724 in FY 09–10. Capital expenditures, which are non-repeating, were for apparatus and equipment replacement and the installation of a sprinkler system for Station 94.

Debt Service in 08–09 was $284,715 and $269,885 in FY 09–10. The debt service is from a 2003 General Obligation Bond and a 2005 Capital Improvement Note. The 2003 Bond was used to replace Fire Station 91. The 2005 Note was issued to replace Station 92.

Ponce Inlet

The Town of Ponce Inlet is 4.33 square miles and located at the end of a barrier island. The Town's 2009 population was estimated at 3,266, a decrease of 33 persons from April 1, 2008. The Town grew 30% since the 2000 U.S. Census when the population was 2,513. The Town has an ISO rating of 5.

The Fire Department is authorized 11.5 positions and has 4 volunteers. Nine persons are assigned to the field and the fire chief covers shift assignments as needed during the basic work week hours to reduce overtime. The Department operates one station, is ALS capable, and has a minimum staffing of 2. Prior to April 1, 2010, the Department's minimum staffing was 3.

The Department's incident rate has steadily increased since 2007. In 2007 the Department responded to 591 incidents. In 2009, incidents responded to were 767, a 30% increase. The increase is skewed since the Department generates incident numbers for public service activities such as performing a blood pressure check at the station. The Department's average response time when eliminating self-generated incidents is 4 minutes 9 seconds.

The Department's operating budget for FY 09–10 was $995,591 a decrease of $147,197 or 12.9% from the previous year.

The Town participates in the Florida State Retirement System. The Town's required contribution in FY 08–09 was $122,235 or 10.7% of the operating budget. In FY 09–10, $117,495 is budgeted which is 11.8% of the operating budget.

The Town's tax millage rate in FY08–09 was 4.175 which generated $3,942,545 revenue based on a taxable assessed value of $994,023,211. For FY 09–10 the tax millage rate is 4.03 with revenue of $2,980,801 a decrease of 24.4% from the previous year.

The fire department's operating budget for FY 09–10 is 33.4% of budgeted property tax revenues. The Town budgets their collection rate at 97%. The fire department's equivalent tax millage rate is 1.346 which is 33.39% of the City's ad valorem tax rate.

The above budgetary data and corresponding fire millage rate does not include the Department's capital cost or debt service. The FY 08–09 capital cost was $41,716 and

$7,650 in FY 09–10. No debt service is recorded for FY 09–10 but $38,120 was spent in FY 08–09.

Port Orange

The City of Port Orange, with an ISO rating of 4, is the third largest municipality in Volusia County. The April 1, 2009 estimated population was 56,732, a decrease of 486 residents from the previous year. The City has seen rapid growth since the 2000 U. S. Census when the population was 45,823, a 23.8% increase.

The City's Department of Fire and Rescue staff five fire stations strategically located throughout the City's 24.7 square miles. The City also has a contract for $112,049 to provide services to a small unincorporated area south of the Harbor Oaks community. Additionally, the Department provides wild land interface fire protection to approximately 10 square miles on the City's well fields, located west of the corporate limits.

The Department has 66 authorized positions but only funds 62. There are 54 personnel assigned to the field, staffing five ALS engines and one battalion chief. Minimum staffing is 3 personnel per engine.

The number of incidents reported for the years 2007 through 2009 was 7,449; 7,614 and 7,654. These numbers can be misleading since they include various public service activities that generate an incident number. In each of the three years, there were approximately 2,000 incidents categorized as a fire service call. Examples of fire service calls include; fire company inspections, smoke detector installation, car seat installations, public education presentation or police assist. In 2009 the average response time was 5:11 minutes. The number of incidents, included in the above totals that were out of jurisdiction, but where Port Orange was first due has been steadily increasing from 6% of the call volume in 2007 to 6.9% in 2009.

Of special interest is Fire Station 74's (6701 Airport Rd) out of jurisdiction call volume. In 2007, 163 (19.8%) of the calls Station 74 responded to were out of jurisdiction. The percentage increased to 28.3% in 2009 with 211 out of jurisdiction incidents.

The Department's operating budget for FY 09–10 is $7,310,706 a decrease of 12.5% or $1,045,627 less than FY 08–09.The City has a F.S. Chapter 175 pension plan. In FY 08–09 the cost to maintain the pension plan's actuarial soundness was $1,608,933 (19.25%) of the operating budget. The cost to maintain the pension for FY 09–10, although dollar wise is less than the previous year, increased to 20% of the operating budget at $1,463,058. The true cost of a pension is its relation to fire department's salaries. In FY 08–09, the cost to salary ratio was 36.3%. The ratio increased to 36.9% for FY 09–10 which is 0.1% away from being the highest contribution rate in Volusia County.

The City has maintained the same 4.60 tax millage rate for the past two years. In FY 08–09 property taxes provided $12,962,571 in revenue. In FY 09–10 revenues are projected to be $10,922,592, a decrease of 15.7%, which is a result of assessed taxable values dropping by 15.4%. The City is preparing for the FY 10–11 budget, which goes into effect October 1, 2010. Projections are that property values will decline another 13.4%, further reducing current property tax revenues by $1,286,438 or 11.8%.

The fire department's operating budget equates to a millage rate of 2.8711 at a collection rate of 100%. The City calculates ad valorem taxes at a 95% collection rate. To generate the same operating revenue the fire department equivalent millage rate would have to increase to 3.0222 (65.7%) of the City's ad valorem tax rate. The above budgetary data and corresponding fire department millage rate does not include the Department's capital cost or debt service. In FY 08–09, $1,592,012 was spent on Capital items. For FY 09–10, $381,126 is budgeted. The capital costs relate to two new fire stations completed in 2009.

Debt Service in FY 08–09 was $273,606, and for 09–10, $274,755 has been budgeted. This is a continuing debt funded by voter approved bonds for the construction of two fire stations.

South Daytona

The City of South Daytona, with an ISO rating of 4, encompasses 3.56 square miles. The April 1, 2009 estimated population was 13,530, a decrease of 235 persons from the previous year. The City has seen a 9.74% population growth since the 2000 U.S. Census when the population was recorded at 13,177.

The City has two fire stations. Brian Ave. Station 99 was built in 1965 on a small residential lot. The facility is unstaffed and is used only for equipment storage and an office. In essence, South Daytona has one active fire station located in the very northeast corner of the City. The City has a contract for $139,895 to provide fire rescue services to unincorporated properties that border the City's western boundary.

The Department has 14 authorized positions with 12 assigned to the field. Three personnel per shift are assigned to an ALS engine, plus a battalion commander. Minimum staffing is 2 plus the battalion commander. The fire chief is one of the twelve assigned to a 24/48 hour shift and serves as that shift's commander. Fire chief duties are performed on his scheduled off days.

The number of fire rescue incidents has decreased from a high of 2,275 in 2007, to 2,098 in 2009. In 2009, the Department ran 1% of their incidents as a first due out of jurisdiction. The Department's average response time for 2009 was 4 min 43 seconds.

The Department's operating budget for FY 09–10 is $1,621,957 which is slightly less that the FY 08–09 budget of $1,622,029. These budget amounts are net of capital outlay and debt service.

The City participates in the Florida State Retirement System. The required contribution increased slightly from $190,858 in FY 08–09 to $192,716 in FY 09–10. The percentage of pension cost in relation to the operating budget is 11.8% for this fiscal year. As a participant in the Florida State Retirement System, the State identifies the required percentage of contribution required based on salaries subject to pension cost. For FY 09–10 the City's pension contribution was 21% for its firefighters.

The City's tax millage rate for FY08–09 was 4.92003, generating $3,222,771 in revenue at a 100% collection rate. In FY 09–10, the City's assessed taxable values decreased by 10%, but had an $184,440 increase in revenues generated from new construction with a tax millage rate of 5.7781 representing a 1.7% decrease below the roll–back millage rate. Projections for FY 10–11 are for the assessed taxable values to decrease an additional 5% with an estimated roll-back tax millage rate of 6.06701 which will generate approximately the same revenue.

The fire department's operating budget equates to a millage rate of 2.75 at 100% collection rate. Assuming a collection rate of 95%, the fire department's equivalent fire tax millage rate is 2.8953 which is 50.1% of the City's ad valorem tax rate.

The above budget details and corresponding fire department tax millage rate does not include the Department's FY 08–09 or FY 09–10 Capital Cost or Debt Service. Capital expenditures in FY 08–09 were $121,250 for replacement self contained breathing apparatus (SCBA) and a replacement vehicle. The SCBA's were 90% funded through a grant. Capital costs were reduced to $33,702 for this year to reflect the actual cost of the replacement vehicle budgeted during the prior year. The Debt Service for the past two years has been $66,351 for a replacement fire engine purchased in January 2007 and is the lease amount amortized over a seven year period.

Volusia County

Volusia County is the eleventh most populous county in Florida with an April 1, 2009 estimated population of 507,105. Since 2008, the County lost 3,645 residents. The County encompasses 1,103 square land miles and an additional 329 square miles of water.

Fire and Rescue services are provided in unincorporated areas of the County, and the cities of Lake Helen, Oak Hill and Pierson, through a dependent fire district. The Fire Department organization, Volusia County Fire Services (VCFS), has an ISO rating 5/9. Populations listed for VCFS protection areas are unincorporated County 116,448; Lake Helen 2,878; Oak Hill 1,984 and Pierson 2,651. The population served is less than the total sum since some areas of unincorporated Volusia receive services under contract with various municipalities.

The Department operates 23 fire stations including Daytona Beach International Airport. The airport station is strictly air rescue fire fighting with BLS first responder capability. Station 16, Halifax Plantation, is owned by Volusia County but staffed by Flagler County who provides ALS services to both counties. Lake Harney, Station 37 is a BLS volunteer station with a closest unit response agreement contract with Seminole County for $12,150. Of the remaining stations, sixteen are ALS and four are BLS first responders.

The Department has 209 personnel with 192 assigned to the field. Twenty-one positions are considered "transitional" and will be eliminated, either through attrition or transferred to another County department. Minimum staffing per station varies. No station has more than three personnel assigned at any one time. Six of the County stations, referred to as hub stations, are staffed with a minimum of 3 personnel and 14 stations are staffed with a minimum of 2 personnel. There are 9 floaters to ensure minimum staffing without causing overtime.

Between January 1, 2007 and December 31, 2009, VCFS responded to an average of 17,604 incidents. The least number of incidents were 16,985 in 2009, the greatest at 18,093 in 2008, and in 2007 there were 17,735 calls for assistance.

Table 2 lists the 2009 average response times by stations.

Table 2: Volusia County Response Times by Station

Station	Response Time	Station	Response Time
11	5:32	34	7:44
12	7:33	35	6:46
13	6:46	36	8:18
14	5:56	37	17:10
15	7:31	41	7:00
18	8:45	42	6:50
21	5:45	43	7:32
22	8:07	44	8:43
23	5:53	45	6:50
31	5:53	46	6:48
32	7:19		

The Department's FY 09–10 operating budget, funded primarily by a fire tax millage, is $27,156,684 a decrease of 11.37% from FY 08–09. The Department's total budget excluding capital improvements, grants, impact fees and appropriate reserves for FY 09–10 is $34,742,834. Of this, $1,245,190 is for Daytona Beach International Airport fire services and is funded by the airport's enterprise fund. Another $1,322,508 is funded by the general fund for Station 15, hazmat operations, prescribed wildfire control and disaster management for on-site monitoring of special events such as speed week and bike week. Another component of the budget is the requirement to maintain financial reserves. The Department budgeted $5,539,059 from the fire tax fund in FY 09–10 for reserves.

One component of Volusia's budget that may be specific to some municipal budgets is the cost for rolling stock under a lease program. For FY 09–10, $1,990,987 is included in the operating budget. Some municipalities fund their apparatus via other methods and the cost may show as a capital item or even as debt service.

The Department is a participant in the Florida State Retirement System. The State establishes the required payment the Department must submit based on payroll. For FY 09–10, the Department's pension contribution based on wages subject to pension cost was 24.02%.

Ninety-seven percent of the Department's budget is funded by property taxes. As a Dependent Fire District, the County Council sets the fire millage tax rate, separate and apart from the general fund tax rate, based on the Department's budget request. For FY 09–10, the fire tax millage rate is 3.6651. Revenues, generated at 96% collection rate is subject to the assessed taxable values of $7,028,058,457 in unincorporated Volusia, the cities of Lake Helen, Oak Hill and Pierson, are projected to be $24,896,952 which is 6% less than FY 08–09. Budget analysts are projecting a 15% decrease in property values for FY 10–11. Assuming the same millage rate, fire tax revenues will drop to $21,209,160.

Volusia County Fire Services is the only fire department in Volusia County primarily funded by a separate property tax structure. Its current millage rate in relation to the total budget does not provide a complete picture. To establish an accurate rate it necessitates portions of the Department's budget be subtracted from the millage rate. Table 3 estimates a millage rate that fairly compares to tax rates identified for each municipality's fire department.

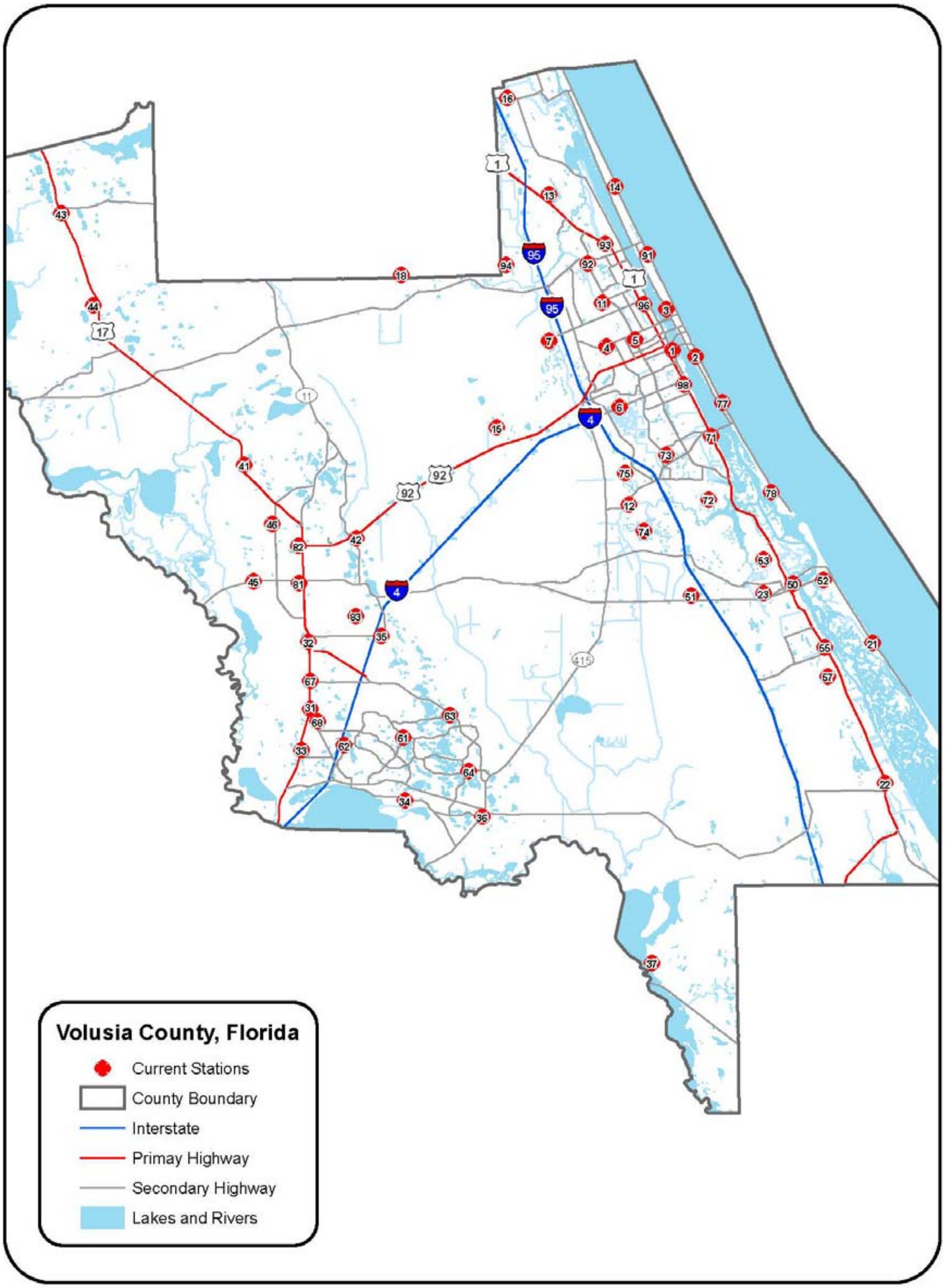
Table 3: Estimated Volusia County Millage Rate

Total Operating Expenditures	**$27,156,684**
Municipal Contracts	**-726,795**
(fire service; not hydrants)	
Airport Operations	**-1,245,190**
Net Operating	**$25,184,699**

The Department's operating budget equates to a tax millage rate of 3.73276. The millage rate does not include Capital improvements, grants or reserves. For FY 09–10, $849,119 is budgeted for capital improvements, $55,816 in grants and $5,539,059 in reserve funds.

Figure 1 shows the location of all fire rescue stations in Volusia County.

Figure 1: Fire Station Locations within Volusia County



Comparison of Service Areas

Table 4, Table 5, and Table 6 compare specific data to each department that is generally relative in providing fire rescue services.

Table 4: Population Density of Volusia County

Department	Population	Area Served Square Miles	Density Pop/ Square Mile	Square Miles/Station
Daytona Beach	65,208	58.7	1,111	8.38
D.B. Shores	5,475	0.97	5,644	0.97
DeBary*	18,741	18.2	1,029	18.2
DeLand	27,123	18.8	1,443	6.26
Deltona	84,264	35.8	2,353	8.95
Edgewater	21,394	22.2	964	11.1
Holly Hill	12,851	3.89	3,303	3.89
New Smyrna Beach	23,449	38.28	612	9.57
Orange City	10,203	6.98	1,461	3.49
Orange City**	28,944	25.18	1,149	8.39
Ormond Beach	40,832	25.7	1,589	6.43
Ponce Inlet	3,266	4.33	754	4.33
Port Orange	56,732	24.7	2,297	4.94
South Daytona	13,530	3.56	3,800	3.56
Volusia County***	123,961	966	128	43.9

*DeBary contracts with Orange City for fire services.

**Orange City's data includes the City of DeBary.

*** Volusia County's data includes population and area served for the cities of Lake Helen, Pierson and Oak Hill since they pay Volusia's fire tax millage. Daytona Beach International Airport is not included in miles/station.

Table 5: Staffing Comparisons for Volusia County[7]

Department	Total Personnel (Funded)	Assigned to Field	Minimum Daily On-duty Staffing	Total Personnel/ 1,000 Population
Daytona Beach	123	103	28	1.88
D.B. Shores*	11.5	11	N/A	2.1
DeBary**	9.6	9	3	0.51
DeLand	44.5	40	10	1.64
Deltona	94	69	17	1.11
Edgewater	31	27	6	1.44

[7] Using the Pearson Product Moment Coefficient, there was a -.21 correlation between the population and the number of FFs per 1000 population. This indicates a weak negative correlation between population and firefighters per 1,000, indicating that a trend indicates smaller departments having a greater ratio of employees.

Department	Total Personnel (Funded)	Assigned to Field	Minimum Daily On-duty Staffing	Total Personnel/ 1,000 Population
Holly Hill	13	11	2	1.01
New Smyrna Beach	46	42	13	1.96
Orange City	19.5	15	5	1.91
Ormond Beach	49	45	13	1.2
Ponce Inlet	11.5	9	2	3.52
Port Orange	62	54	16	1.09
South Daytona	14	12	3	1.03
Volusia County***	199.5	182.5	49	1.6

*Daytona Beach Shores' personnel per 1,000 population is based on the Department's public safety budget attributed to fire and one half for the chief.

**DeBary's personnel per 1,000 population includes 1/3 for fire marshal and 1/3 for the chief.

***Data does not reflect nine personnel assigned to Daytona Beach International Airport or Flagler County's personnel staffing Station 16.

The above does not take into account any volunteer or reserve members.

Table 6: Human Resources Comparisons[8]

Department	Operating Budget	Cost/Capita	Cost/Employee	Pension Cost/Employee
Daytona Beach	$12,720,531	$195.07	$103,419	$14,772
D.B. Shores*	$1,450,654	$264.95	$131,877	$23,322
DeBary**	$883,915	$47.16	$98,212	N/A
DeLand	$3,505,293	$129.23	$78,770	$9,607
Deltona	$8,624,470	$102.35	$91,749	$7,164
Edgewater	$2,652,502	$123.98	$85,564	$9,668
Holly Hill	$1,321,154	$102.80	$94,368	$14,769
New Smyrna Beach	$5,134,204	$218.95	$111,613	$20,761
Orange City***	$1,377,225	$134.98	$70,627	$8,982
Ormond Beach	$5,690,070	$139.35	$116,123	$19,129
Ponce Inlet	$995,591	$304.83	$86,573	$10,681

[8] Pearsons Product Moment Correlation revealed no correlation between number of employees and cost per employee (Corr = .04).

Department	Operating Budget	Cost/Capita	Cost/Employee	Pension Cost/Employee
Port Orange	$7,310,706	$128.86	$117,914	$23,597
South Daytona	$1,621,957	$119.87	$115,854	$13,765
Volusia County	$27,156,684	$219.07	$136,465	$13,543
Volusia County****	$21,453,981	$173.07	$107,808	$13,543

*Daytona Beach Shores is a Public Safety Department where police officers are also firefighters and EMT/Paramedics. The City does not have a separate fire department. This budget amount represents only the fire portion of the total Public Safety Department's budget as accounted for by the City's Finance Director.

**DeBary contracts with Orange City for fire services requiring three firefighters per shift. The cost and maintenance for the fire station and fire apparatus, owned by DeBary, is not included in the contract price with Orange City.

*** The pension cost per employee accounts for Orange City's 19.5 employees and the 9 firefighters assigned to DeBary.

**** Volusia County Fire is a taxing district, like a city, they are required to maintain reserve funds. To provide a more accurate comparison, $5,702,703 in reserve funds were deducted from their operation budget.

Pension Cost per Employee does not necessarily provide a true picture when comparing various departments listed in Table 6. Pension cost and the rate of contribution is determined by the employee's classification. Firefighters are high risk and the contribution percentage is higher than for a non-high risk employee. A department with a higher number of non-high risk employee's will have a much lower pension cost/employee than a department that consists of all high risk or minimal non-high risk.

For example: Deltona has 94 employees, but only 77 are certified firefighter and categorized as high risk. Most of the other department's have one or two non-certified administrative positions resulting in higher pension cost/employee. Pension costs are based on wages and incentives an employee may receive for various certifications. The certification having the greatest effect on the pension is paramedic licensure. All Departments with the exception of DeLand have paramedics. Paramedic incentive compensation can exceed $6,000 annually for each certified paramedic.

Pensions

Pensions are a major expense in providing emergency services. Whether it is in Los Angeles, California, where they have discussed filing for bankruptcy, or Volusia County, where fire department pensions require substantial taxpayer dollars to fund, public safety pensions are a significant issue. This year alone Volusia's local governments budgeted $10,281,738 to support their fire rescue services pensions.

In addition to the required annual contributions to keep the fund actuarially sound, all of the municipalities that have F.S. Chapter 175 pension plans have unfunded liability. The Florida Retirement System generally does not carry any unfunded liability. When they do, they increase the contribution rate for participating governments.

Florida's State budget year runs from July 1 to June 30. Local government's budget year begins October 1 and goes thru September 30. The State's required pension contribution rate for their FY 09 was 21.33%. Due to their having an unfunded liability, the State is considering increasing the contribution rate beginning July 1, 2010 to 28.57%. This levy is supposed to reduce their unfunded liability to zero.

F.S. Chapter 175 plans are allowed to carry their unfunded liability forward and are only required to maintain actuarial soundness as determined by a certified actuarial accountant.

Table 7 and Table 8 identify data specific to each department's pension for FY 09.

Table 7: Pension Contributions

Department	Government Contribution Percentage	Years to be Vested	Multiplier Percentage	Employee Contribution Percentage
Daytona Beach	30.56	10	3.5	10
D.B. Shores	21.33	6	3	0
DeLand	15.20	10	3	5
Deltona	N/A	10	3	8
Edgewater	11.46	5	3	6
Holly Hill	27.81	6	3	8
New Smyrna Beach	37.00	10	3	1
Orange City	21.33	6	3	0
Ormond Beach	27.40	10	3.37	8.4
Ponce Inlet	21.33	6	3	0
Port Orange	36.90	10	3	0.5
South Daytona	21.33	6	3	0
Volusia County	21.33	6	3	0

Table 8: Pension Unfunded Liability-F.S. Chapter 175 Plans

Department	Unfunded Liability	Debt per Sworn Member
Daytona Beach	$20,196,624	$177,163
DeLand	$72,262	$1,680
Deltona	$3,763,710	$48,879
Edgewater	$675,283	$22,509
Holly Hill	$1,437,122	$110,547
New Smyrna Beach	$7,772,941	$172,732
Ormond Beach	$7,458,000	$149,717
Port Orange	$17,846,823	$302,488
Total	**$59,222,765**	

The unfunded liability that several cities have accumulated with their F.S. Chapter 175 pension plan is critical. With a weak economy and low interest rates of return it becomes imperative for these cities to develop a plan to lower the unfunded liability.

Recommendation 1: Affected cities with F.S. Chapter 175 pension plans should develop a plan to lower their unfunded liability.

III. FIRE RESPONSE

The National Fire Protection Association (NFPA) publishes codes and standards establishing guidelines for numerous fire department facets. Two standards of importance for this study are; NFPA 1710; Standard for The Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Career Fire Departments and NFPA 1500; Standard on Fire Department Occupational Safety and Health Program.

In part, NFPA 1710 states the first arriving fire company shall reach the scene of an incident 90% of the time within four minutes travel time. Furthermore, all units responding to the incident shall reach the scene of the incident 90% of the time within eight minutes. NFPA 1710 also recommends that four persons should be assigned to every fire engine or ladder truck.

NFPA 1500, as well as Florida State law, requires a minimum of four personnel in the initial stages of fighting the fire before any offensive attack can commence. Two firefighters can initiate the interior operation provided there are two people on the outside available to rescue the two inside firefighters, referred to as Two In – Two Out.

Fighting the fire from the inside is referred to as an offensive operation. NFPA defines this as an operation performed in the interior of involved structure that involves a direct attack to control and extinguish the fire.

Unless four persons are assembled on the fire ground, the arriving crews can only perform defensive measures. NFPA defines a defensive operation as; control the fire by limiting its spread to a defined area avoiding the commitment of personnel and equipment to dangerous areas. Map 2 highlights those areas where the closest unit located at a fire station can reach the scene of an incident within four and eight minute travel time.

Figure 2: Four and Eight Minute Response Times

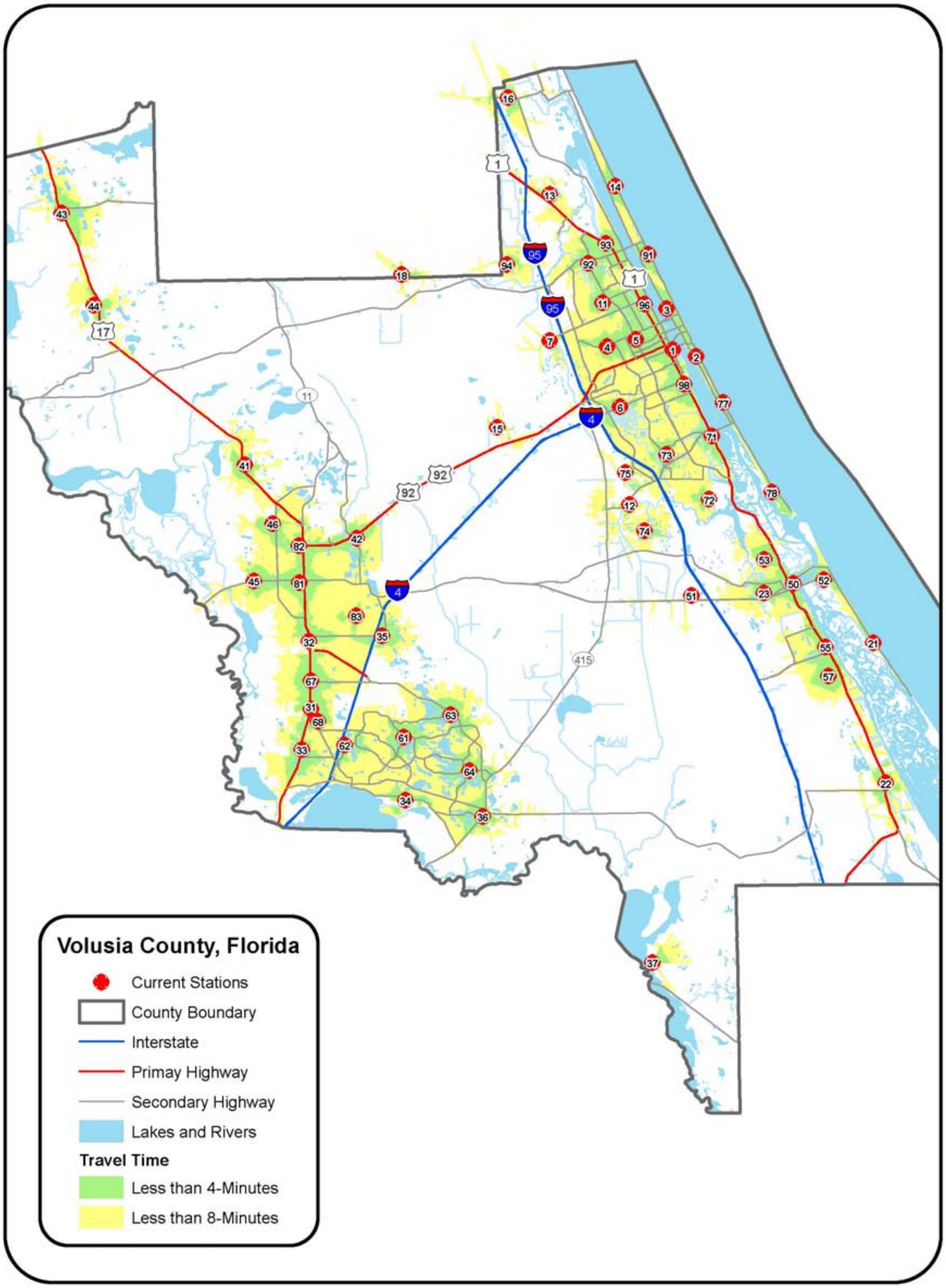


Table 13 and Table 14 lists the average response time for each fire department and EVAC as reported to TriData.

No fire department in Volusia County can initiate an offensive operation with their first arriving unit when they are at minimum staffing! Cities, through their budgeting process have identified the amount of risk they are willing to accept based on the low 2.6% actual rate of fires versus total number of incidents responded to.

The NFPA identifies three levels of fire response based on the type of hazard and recommends the type and number of apparatus and personnel.

- **Low Hazard:** 13–16 personnel; 12 firefighters, 1 command officer, 1 safety officer and 1 RIT (Rapid Intervention Team). Two engines one truck. An example of a low hazard structure is a single family dwelling.
- **Medium Hazard:** 17–20 personnel; 16 firefighters, 1 command officer, 1 safety officer and 1 RIT. Three engines one truck. An example of a medium hazard is an apartment building less than three stories or a small commercial occupancy.
- **High Hazard:** 26–29 personnel; 24 firefighters, 2 command officers, 1 safety officer and 1 RIT. Four engines two trucks. An example of a high hazard is a hospital, high rise building, large shopping center complex, or industrial complex.[9]

The amount of apparatus dispatched on an incident varies by jurisdiction.

Table 9 identifies the weight of response sent on a sample of incidents.

Table 9: Initial Weight of Response

Department	Single-Family Structure[10]	Multi-Family Commercial	Vehicle Accident	Fire Alarm Sounding
Daytona Beach	3-E, 1-L, 1-R, 1-C	4-E, 1-L, 1-R, 1-C	1-E	1-E, 1-L
D.B.Shores	3-E, 1-L, 1-R, 1-C	4-E, 1-L, 1-R, 1-C	1-R	1-E
DeLand***	2-E, 1-L, 1-C	2-E, 1-L, 1-C, 1-S	1-E, 1-L, 1-C	2-E, 1-L, 1-C
Deltona	3-E, 1-R, 1-C	3-E, 2-L, 2-C	1-E	2-E, 1-C
Edgewater*	3-E, 1-L, 1-C	4-E, 1-L, 1-C	1-E, 1-R, 1-C	1-E, 1-C
Holly Hill	3-E, 1-L	4-E, 1-L	1-E	1-E
New Smyrna Beach*	3-E, 1-L, 1-C	4-E, 1-L, 1-C	1-E, 1-R, 1-C	1-E, 1-C
Orange City**	2-E, 1-L, 1-C	3-E, 2-L, 2-C	1-E	2-E, 1-C
Ormond Beach	3-E, 1-L, 1-C	4-E, 1-L, 1-C	1-E	1-E, 1-L
Ponce Inlet*	3-E, 1-L, 1-C	4-E, 1-L, 1-C	1-E, 1-R, 1-C	1-E, 1-C

[9] NFPA
[10] All assignments require automatic or mutual aid on the initial dispatch.

Department	Single-Family Structure[10]	Multi-Family Commercial	Vehicle Accident	Fire Alarm Sounding
Port Orange*	3-E, 1-L, 1-C	4-E, 1-L, 1-C	1-E, 1-R, 1-C	1-E, 1-C
South Daytona*	3-E, 1-L, 1-C	4-E, 1-L, 1-C	1-E, 1-R, 1-C	1-E, 1-C
Volusia County	2-E, 1-S, 1-T, 1-C	2-E, 1-S, 1-T, 1-C	2-E, 1-S, 1-C	2-E, 1-S, 1-T

E=Engine, L=Ladder/Squirt, R=Rescue, C=Chief Officer, T=Tender (water tanker) S=Squad

*These departments are dispatched by the Regional Communication Center (RCC) in Port Orange. In lieu of a rescue unit a second engine or ladder is dispatched.

**In addition to the alarm assignment under Orange City dispatch protocols, structure fires in DeBary also have a Tender dispatched.

***DeLand's first due engine responds with lights and siren. All other units go nonemergency.

As listed in Table 9, inconsistencies exist between agencies regarding the number and type of apparatus dispatched to the sampling of incidents. In most situations, it is not the amount of equipment required but rather the transportation means to get the number of personnel to the scene to adequately address the emergency incident.

Dispatching multiple units on all types of incidents does not warrant the risk to the public or fire service personnel when experience dictates otherwise. Furthermore, it's costly and creates unnecessary wear and tear on the apparatus. The actual number of incidents is skewed because the reporting does not appear to take this into account.[11]

A fire alarm sounding, not associated with a manual activation or a verbal confirmation of fire is in most cases unfounded. Multiple vehicles travelling at high speeds create a bigger safety issue than the incident they are responding to. Reducing the initial weight of response can eliminate risks and reduce fuel and vehicle wear and tear costs. The battalion chief and first due officer have the latitude to increase the alarm assignment.

Recommendation 2: On report of an automatic fire alarm sounding, change dispatch protocols to send one engine, with a minimum of three firefighters, non-emergency. If the engine is staffed with less than three firefighters an additional unit or a battalion officer should be sent.

Recommendation 3: On a motor vehicle crash (without reported entrapment), change dispatch protocols to just send the appropriate closest unit unless information warrants additional units.

Based on the three basic levels of hazards identified by the NPFA, and the minimum number of personnel needed on the initial alarm, it is evident only a few of the 13 fire departments can meet the response criteria without the assistance of mutual aid.

Only the following fire departments can supply the required personnel on the initial alarm when at minimum staffing without the use of mutual aid.

[11] NFIRS as envisioned and started by former USFA Administrator Tipton was meant to account for mutual/automatic aid calls being reported as the same incident.

- **Low Hazard:** Daytona Beach, Deltona, New Smyrna Beach, Ormond Beach and Port Orange. (Although Volusia County has sufficient personnel on duty, their locations as scattered throughout the County, which makes for an unreasonable expectation of mustering their forces in a reasonable amount of time.)
- **Medium Hazard:** Daytona Beach, Deltona, Port Orange
- **High Hazard:** Daytona Beach

The concept of a fire mutual aid pact was to help one's neighbor when the incident exceeded resources. Over the past several years the system of mutual aid in Volusia County largely has changed to automatic aid. The impetus was Volusia County's EMS Ordinance requiring closest unit response on EMS incidents as a condition of their COPCN. As a result of merging dispatch centers, there is now also *closest unit response* on all fire calls. Advancements in Automatic Vehicle Locator (AVL) technologies provide the opportunity to further enhance the automatic aid concept.

The larger municipalities are now subsidizing fire services to the smaller cities. For example, a medium hazard commercial structure fire in Holly Hill gets four engines and one ladder truck. Holly Hill staffs one engine with as few as two firefighters. All other apparatus, including a command officer, comes from Daytona Beach, Ormond Beach and Volusia County.

Holly Hill spends $102.80 per capita for fire services. Daytona Beach, Ormond Beach and Volusia County spend per capita $195.07, $139.35 and $219.07 respectively. This is one example. The smaller cities must rely on the generosity of their larger neighbors translating into higher costs for the larger departments.

Recommendation 4: If no mergers occur, the larger departments should evaluate the impact of automatic/mutual aid services provided to smaller departments for which they receive no remuneration.

This report does not consider capital expenditures or debt service. An assumption of the study was any commitment to long term debt would continue to be borne by the government entity where it was created. Furthermore, any impact fees currently collected and dedicated to a capital expenditure would continue to fund said expenditure. For example, DeLand has a fire impact fee whereby the funds are dedicated to the debt service on Station 83.

Several cities and the County have fire impact fees. The impact fee is onetime fee that is assessed on new construction/development. The purpose is to establish a fair share of the anticipated cost for new equipment and facilities required to provide fire services for the new development. The collected fees are not permitted to pay for equipment replacement or personnel services.

The ability to collect fire impact fees is established through local ordinances with the rate assessed by resolution. Impact fees can only be assessed after an in-depth study is completed detailing the impact each new construction type has on the current level of service. One city cannot arbitrarily set their fee to another other city's fee for the sake of uniformity. Table 10 lists the various fire impact fees for several types of new construction within the jurisdictions.

Table 10: City Impact Fees

City	Single Family	Multi-Family	Commercial
Daytona Beach	Same rate for multi-family. Varies based on square footage of unit. $185 for 1,000 sq. ft. to 1,999.99 up to $237 for anything over 4,000 sq. ft.		$355/1,000 sq. ft.
DeLand	$82/dwelling	$79/unit	$22/1,000 sq. ft.
Deltona	$214.49/dwelling	$116.24/unit	Varies depending on type
Edgewater	Rates not reported or available on web site.		
New Smyrna Beach	$299.61/dwelling	$299.61/unit	$0.45/sq. ft.
Orange City	$158.54/dwelling	$158.54/unit	$263.07/1000 sq. ft.
Port Orange	$277/dwelling	$277/unit	$0.20/sq. ft.
South Daytona	$301.97/dwelling	$161.17/unit	$0.5491/sq. ft.
Volusia County	$286.52/dwelling	$286.52/unit	$0.15/sq. ft.

The cities of Daytona Beach Shores, Holly Hill, Ormond Beach and Ponce Inlet do not have a fire impact fee.

Any form of merger would require an additional study with applicable ordinances to reestablish impact fees within the new district.

IV. EMERGENCY MEDICAL SERVICES

All fire departments in Volusia County provide EMS first responder services. All provide service at the ALS level, except for DeLand, a BLS agency. Patient transport is provided by EVAC Ambulance, the County's sole transport provider. Transport units are staffed by an Emergency Medical Technician and a paramedic. The system is commonly known as a two-tier system, with fire department response the first tier.

Medical direction, required by law, is provided by the medical director, Dr. Peter Springer, and funded by the County. The medical director has complete authority over all paramedics regarding their ability to perform ALS procedures within the County. The paramedic scope of practice is described in the medical protocols that are approved by the medical director. Medical protocols help insure consistency in treating medical patients in the field.

Since the mid 1980's, several cities have requested the County to issue them a Certificate of Public Convenience and Necessity (COPCN) to transport within their jurisdictional boundaries.[12] On at least two occasions professional studies were conducted with the same conclusion; do not fragment the current transport system. The cities' request to transport was denied. The dispute on who should transport continues today. Numerous attempts to change State law, which authorizes the County to establish rules regarding the issuance of COPCNs, have been attempted to no avail.

An EMS incident generates a response from the local fire department along with EVAC Ambulance, regardless of the nature of the call, from cardiac arrest, to broken finger, injury from a fall or transport of a patient from a nursing home, Over the years, the public and government leaders have considered this dual response to every incident as redundant, costly and unnecessary. The medical director recently requested dispatch centers within the County to institute a nationally-recognized Medical Priority Dispatch (MPD) protocol. The intent of the protocol is to assure the appropriate weight of response to an EMS incident, emphasizing patient care priorities, economy, and safety. Depending on the nature of the call, both fire and ambulance maybe dispatched to the incident or only fire or only an ambulance. MPD has not been implemented primarily due to resistance from fire chiefs.

Recommendation 5: The County fire chiefs should agree to accept and implement a nationally-recognized Medical Priority Dispatch system.

Fire department's staff their apparatus 24/7, referred to as level staffing with firefighters working 24 hours on followed by 48 hours off for an average work week of 56

[12] A COPCN is an authorization to provide a service. It is issued at the total discretion of a county.

hours. Fifty three hours are at the regular hourly rate of pay with three hours at time and one half.[13]

EVAC staffs ambulances based on demand and locates their units at various intersections throughout the County. They operate as few as eleven during off peak hours and as many as 22 during peak hours. Data analyzed by EVAC identified peak hours to be between 10 a.m. and 10 p.m. The slowest time period for EMS calls was between midnight and 7 a.m. Although midnight to 7 a.m. is the slowest time for incidents, EVAC normally does not get to its low of eleven ambulances until 3 a.m. and begins to increase the number of units beginning at 5:30 a.m. Figure 3 identifies the EMS demand pattern for Volusia County.

Figure 3: Volusia County EMS Demand[14]

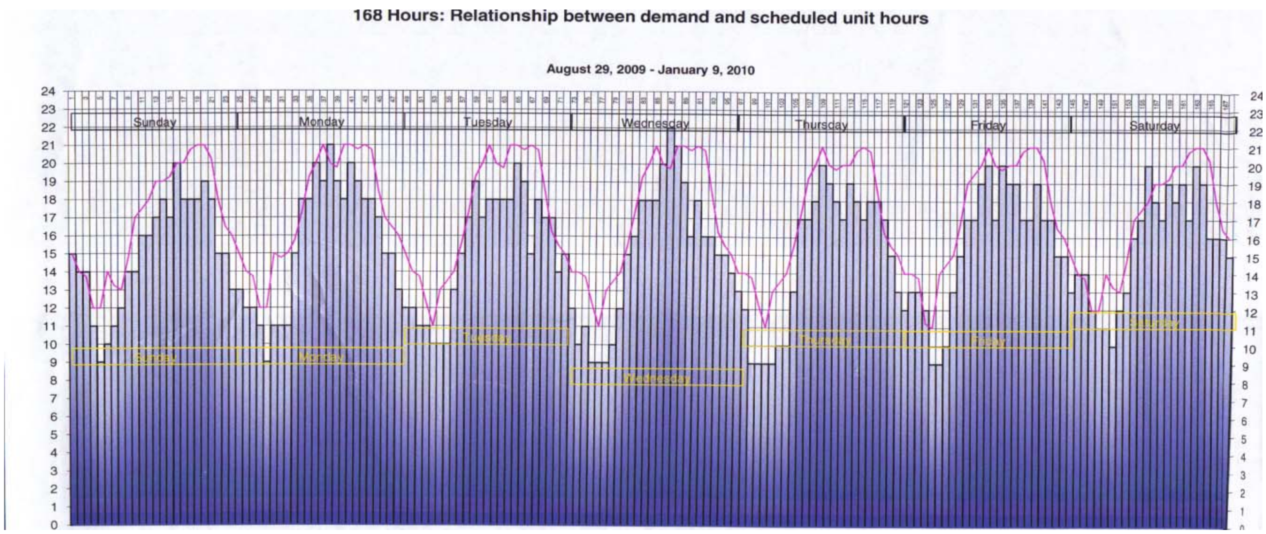


Table 11 identifies the home locations of ambulances during peak hours. Table 12 identifies the location of ambulances when staffing the minimum eleven units.

Table 11: Peak-Time Ambulance Locations

Eastside	Westside
SR 40 & Nova (Ormond Beach	Brandy Wine & Hwy 17 (Deleon Springs)
SR 40 & Atlantic Ave (Ormond Beach	Woodland Blvd & ISB (DeLand)
LPGA & Nova (Holly Hill)	Amelia & New York Ave (DeLand)
Mason & Caswell (Holly Hill)	Orange Camp & Woodland Blvd (DeLand)
Williamson & ISB (Daytona Beach)	Graves & Volusia Ave (Orange City)
Beville Rd & Nova (Daytona Beach)	Howland Blvd & I-4 (Deltona)
Dunlawton & Atlantic Ave (D.B. Shores)	Saxon Blvd & Enterprise (Orange City)
Dunlawton & Clyde Morris (Port Orange)	High Banks & 17-92 (DeBary)
Mary & Ridgewood Ave (New Smyrna Beach)	Providence Blvd & Tivoli (Deltona)

[13] The three hours of premium pay are required to fulfill the requirements of the Fair Labor Standards Act.
[14] Table placed at the request of the Halifax group. It would not normally meet TriData's technical quality standard.

Eastside	Westside
SR 44 & Wallace (New Smyrna Beach)	Howland Blvd & Elkam (Deltona)
Indian River Blvd & U.S. 1 (Edgewater)	Courtland Blvd & Doyle Rd (Deltona)

The above are primary staging locations based on no demand. When an ambulance is dispatch to a medical call, other units will be relocated to secondary staging areas in order to fill in the gap.

Table 12: Non-Peak Ambulance Staging Locations

Eastside	Westside
SR 40 & Beach St. (Ormond Beach)	Amelia Ave & E. New York (DeLand)
ISB & U.S. 1 (Daytona Beach)	Providence Blvd & Tivoli (Deltona)
Dunlawton & Nova (Port Orange)	Saxon Blvd & Enterprise (Orange City)
Beville Rd & Nova (Daytona Beach)	Orange Camp Rd & S. Woodland (DeLand)
Post 7 & North Dixie Hwy (New Smyrna Beach)	Howland & Elkam (Deltona)
Indian River & S. Ridgewood (Edgewater)	

Ironically, according to the Florida State Fire Marshal's 2008 Annual Report, the peak time period for fires is between 11 a.m. to 9 p.m. with the least amount of fires occurring between midnight and 8 a.m. However, fires occurring between these hours tend to more serious in nature due to delays in detection. Combining the fire service use of static staffing and deployment, and EMS dynamic staffing and deployment offers the greatest cost-benefit for the citizens. Fire departments should attempt to identify times where static staffing and deployment do not contribute to faster response times or where there may not be a need for service.

Recommendation 6: Departments should determine how to use the combination of static and demand staffing and deployment to justify need for and cost of resources.

Who can staff an ambulance cheaper has been argued for years in Volusia County. The base hourly starting rate for an EVAC emergency medical technician (EMT) and a lead paramedic is $29.60 per hour. In the fire department starting hourly rate for an EMT and paramedic is approximately $24.70 per hour. To staff an ambulance 24/7 would require a four platoon system for EVAC versus a three platoon system for the fire department. EVAC's annual base wages for a 24/7 unit under the four platoon system would be $264,742. With pension contribution the cost increases to $280,626. The fire department's base wage cost using the three platoon system is $221,559. However, once the required pension contribution is added the total cost increases anywhere from $246,949 to $303,535. Based on the average of the ten highest contribution rates listed in Table 7, the fire department's cost is $280,560.

The above is for a starting paramedic and EMT. As wages approach midpoint, EVAC's annual cost is $313,511 for a four platoon 24/7 unit. The fire department's cost for their three platoon system is $358,645.

It is important to note that the above wage comparison is only effective on the primary 11 units EVAC maintains in service 24/7. All other ambulances are staffed on demand. If the system demand only requires a 12 hour ambulance, the cost to EVAC is half of a 24 hour unit. With the fire department, the demand may be for 12 hours but with level staffing the cost basically doubles that of EVAC's for that 12 hour unit.

Currently, the most cost effective ambulance transport system favors EVAC for the following reasons.

- EVAC retirement plan is a 401K (defined contribution) whereby EVAC contributes 6% based on the employee's wages versus the higher governmental percentage contribution rate (See Table 7) required by the fire department's defined benefit plan.
- EVAC staffs ambulances based on call demand. The fire department staffs on numbers assigned to a unit for 24 hours 7 days a week.

Several fire departments have conducted studies indicating they could perform ambulance transport within their municipality and produce revenue that would assist off-setting the fire department budget.

A singular view does not look at the effect on the current transport system. While the single entity may gain revenue, the total system has to readjust its budget for the lost revenue. Unless the fire department system is regionalized, or unified, the total cost for ambulance transport will increase requiring additional taxpayer dollars to subsidize the ambulance system if individual fire departments transport.

Paramedic Saturation

In the early 1980's, with the birth of EVAC, not every ambulance was ALS. EVAC was operating BLS and ALS units. The nature of the call dictated which type of ambulance was dispatched to the incident. In the early 1980's not every fire department responded to medical calls and less than a handful were ALS certified.

Throughout the years, both systems worked hard to increase their ALS capabilities. The emphasis on employment for fire departments was to hire firefighter/paramedics. Both systems worked with their existing EMT employees and sent them to paramedic school. In a few situations, fire departments hired paramedics and sent them to fire school. Between the fire departments and EVAC there are over 325 paramedics on payrolls. There is little management control on the number of paramedics within the organization. It is not uncommon to have two or three paramedics on a fire truck and two paramedics on an ambulance responding to a medical incident.

Maintaining paramedic licensure requires extra training and certifications adding to the expense of maintaining an ALS system. It also drives up the cost of overtime. A fire engine may be at minimum staffing but if one of those persons is not a paramedic, overtime is required to keep the fire engine in service.

EMT's can now perform more medical procedures than twenty years ago. Volusia County's data revealed that medical incidents requiring paramedic skills are used on less than 20% of the calls.[15] If a patient requires treatment by a paramedic then it becomes essential the paramedic arrive on the scene in a timely manner.

This topic has received national attention in regards to ALS procedural efficacy, shortage or distribution, and the number of skills needed to keep up skill proficiency. Although specific issues are beyond the scope of our study, it is sufficient to say that there will likely be opportunities to readjust EMS services based on scientifically valid, evidence-based information. We are not, however, able to recommend a wholesale change in ALS delivery.

All Department's and EVAC keep track of their response times. Over a period of time an average response time is established. Table 13 shows the average response time of each department submitted to TriData.[16]

Table 13: Response Times for Fire and EMS

Fire Department	Average Response Time	EVAC to City	Average Response Time
Daytona Beach	5 min 06 sec	Daytona Beach	4 min 50 sec
D.B. Shores	3 min 17 sec	D.B. Shores	6 min 22 sec
DeLand	5 min 13 sec	DeLand	4 min 42 sec
Deltona	6 min 10 sec	Deltona	5 min 57 sec
Edgewater	4 min 12 sec	Edgewater	4 min 58 sec
Holly Hill	N/A	Holly Hill	5 min 47 sec
New Smyrna Beach	4 min 46 sec	New Smyrna Beach	5 min 17 sec
Orange City	N/A	Orange City	4 min 35 sec
Ormond Beach	4 min 45 sec	Ormond Beach	5 min 51 sec
Ponce Inlet	4 min 09 sec	Ponce Inlet	9 min 49 sec
Port Orange	5 min 06 sec	Port Orange	5 min 20 sec
South Daytona	4 min 43 sec	South Daytona	6 min 53 sec

Volusia County station's average response times are listed in the Volusia County profile located in Table 13. EVAC maintains average response times for various communities in the County as follows. The fire stations corresponding to the community are listed under the Fire Department heading (Table 14).

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[15] Wolcott, M.D., Foelker, T., and Springer, P.C. (2009). Evaluating the Impact: Fire Services Provision of Advanced Life Support. (October, 2009). Unpublished report.

[16] 90^{th} percentiles were not available.

Table 14: County Fire and EMS Average Response Times

Fire Station	FD Response Time	City	EVAC Response Time
Lake Helen Station 35	6 min 46 sec	Lake Helen	8 min 45 sec
DeBary Station 33	N/A	DeBary	8 min 15 sec
DeLeon Springs Station 41	7 min 00 sec	DeLeon Springs	10 min 00 sec
Glenwood Area Station 46	6 min 48 sec	Glenwood Area	6 min 48 sec
Oak Hill Station 22	8 min 07 sec	Oak Hill	9 min 32 sec
Pierson Station 44	8 min 43 sec	Pierson	16 min 14 sec
Seville Station 43	7 min 32 sec	Seville	19 min 43 sec

EVAC's average response time to urban areas closely mirror the fire departments. In a few Cities, EVAC's average response time was quicker by less than one minute. In other urban cities, the fire department's average response time was quicker by less than one minute. There are a couple of exceptions.

Advance life support procedures administered by the paramedic cannot be initiated until an initial assessment can be made. Within that time frame, EVAC's paramedic is likely on the scene. According to EVAC's documentation, only 2% of all ALS procedures are initiated prior to the arrival of an ambulance. This means minimal ALS procedures are taking place prior to the arrival of the ambulance. The first unit on the scene must assess the patient's condition and initiate, in most case, BLS activities before starting ALS procedures.

In the previously cited Advanced Life Support Study by Volusia County, the frequency in which ALS interventions were performed by paramedics ranged from once every three shifts to as infrequent a once in nine months. The numbers of paramedics versus the number of ALS incidents does not provide ample opportunity for paramedics to maintain skills proficiency.

Cities should reevaluate the number of paramedics in their system versus the actual need to provide services. Fire department average response times mirror EVAC's response times in the urban areas. As such not all fire stations require paramedics on their fire engines. Limiting the number of paramedics in certain areas could offer savings through reductions in premium pay, pension contribution, training, licensing costs and overtime.

DeLand is the only fire department in Volusia County that does not provide ALS. Their cost per employee, the effect of the fire department's budget against the city tax rate, and the pension contribution rate are the second lowest in the County. DeLand also has the lowest unfunded pension liability that is $600,000 less than the second lowest and $19 million less than the highest city. Also, there is no evidence that DeLand's patient care is adversely affected.

Before eliminating ALS first response, each city should evaluate response times (fire and EVAC) to specific areas. There may be pockets where ALS first response is necessary. Also, determining the need for ALS based on specific interventions may not tell the whole story. Having EMS providers with ALS assessment skills may be beneficial to patients even if ALS interventions are not needed.

Recommendation 7: Cities should reevaluate their need to provide ALS-level first response. If response data indicates little benefit from providing first responder ALS, then cities should be allowed to reduce to BLS first response.

V. COMMUNICATIONS/DISPATCH

On December 5, 1983, Volusia County activated its Enhanced 9-1-1 system. At that time, every city with a police department had a primary PSAP. In addition, EVAC ambulance and the Deltona Fire District had secondary PSAPs.

An Enhanced 9-1-1 system identifies where the phone call is originating in the communication center. The phone company programs the phone line to ring into the communication center associated with that specific location's governmental jurisdiction's protocol and based on which agency provides law enforcement to that caller.

Today, there are three PSAPs and two secondary PSAPs.

Primary PSAP's

Primary PSAP's are the primary 911 answering points.

Volusia County Sheriff's Office (VCSO) – The VCOS receives 9-1-1 emergency calls from unincorporated areas throughout the County and all municipalities except Edgewater, Ponce Inlet, Port Orange and New Smyrna Beach. They dispatch Deputies in the County to include the cities of Deltona and DeBary. VCSO also dispatches the Lake Helen, Oak Hill, Daytona Beach, Daytona Beach Shores, DeLand, Holly Hill, Orange City and Ormond Beach police departments.

Regional Communication Center (RCC) – The RCC is located in Port Orange, and receives 9-1-1 emergency calls for the cities of Edgewater, Port Orange and New Smyrna Beach. In addition to dispatching police and fire departments for these three cities, they also received transferred 9-1-1 calls from the Sheriff's Office and Ponce Inlet to dispatch South Daytona and Ponce Inlet Fire Departments.

Ponce Inlet Dispatch – Ponce Inlet maintains their own PSAP to dispatch their police department.

Secondary PSAPs

Secondary PSAPs receive their calls from a Primary PSAP and function as the primary dispatch point for other units.

Deltona Fire Department – Deltona receives 9-1-1 transferred calls from the Sheriff's Office and dispatches their city's fire department and Orange City's fire department.

Volusia County Sheriff's Office Fire Medical Dispatch – Currently, fire calls for Daytona Beach, Daytona Beach Shores, DeLand, Holly Hill, Ormond Beach and VCFS are initially received by the Sheriff's primary dispatch and then the call is transferred to Fire Medical Dispatch Center for disposition.

Funding for the PSAPs is through a .41 cent per month telephone line service charge collected on monthly phone bills and a .50 cent per month charge on cellular phones. The County collects the service fees and funds the PSAPs.

To understand the process of what happens to a medical call received through 9-1-1 requires several examples based on where the call originates.

- Example 1: A 9-1-1 call originating in Daytona Beach is received by VCSO. The call is transferred to VCSO Fire Medical Dispatch where Daytona Fire and EVAC are dispatched to the incident.
- Example 2: The call originates in South Daytona. VCSO receives the call and transfers the call to RCC. RCC dispatches South Daytona Fire and calls via land line VCSO Fire Medical Dispatch to dispatch EVAC.
- Example 3: The 9-1-1 call is received in Ponce Inlet. Ponce Inlet transfers the call to RCC who in turn dispatches Ponce Inlet Fire and calls VCSO Fire Medical Dispatch by land line to dispatch EVAC.
- Example 4: A 9-1-1 call originates in Edgewater and is received by RCC. RCC dispatches Edgewater Fire and calls by land line VCSO Fire Medical Dispatch to send EVAC.
- Example 5: In Orange City, the 9-1-1 call is received by VCSO who in turn transfers the call to Deltona Fire. Deltona dispatches Orange City Fire and calls VCSO Fire Medical by land line to send EVAC.

In all examples with the exception of Example 1, EVAC's dispatchers never communicate with the caller. They rely on the information relayed to them by RCC's or Deltona's dispatchers. This format can lead to miscommunication between agencies resulting in the ambulance not arriving on the scene in a timely manner.

Case In Point – On January 8, 2010, EVAC was notified, as cited in Example 4, of a person having an asthma attack. An additional call for a heart attack was received in New Smyrna and EVAC diverted the ambulance from Edgewater to the heart attack. A second ambulance was then dispatched to Edgewater arriving some 32 minutes later. However, the condition of the patient deteriorated to the point of being critical. The patient died shortly after arriving at the hospital.

According to the March 19, 2010 Daytona Beach News Journal, an internal review by the County's EMS Director said "the first ambulance would not have gone to New Smyrna Beach had the information relayed initially by the Regional Communications

Center to the sheriff's communications center included more details about the patient's deteriorating condition.

In an interview with the Daytona Beach News Journal, RCC's director stated, "I listened to the (9-1-1) tape and all the information was relayed. There was no problem with the way his dispatchers handled the call."

It is not the intent of this report to place blame or take sides with what appears to be an error in communication between dispatch centers. We merely point out that such errors occur and that sometimes errors can lead to bad outcomes!

All fire department units and EVAC ambulances operate on the same 800 MHz radio system. They have the ability to communicate directly with each other without having to relay information through their respective communication centers. Once dispatched, the fire unit is assigned a tact channel by their dispatch center while the ambulance remains on its primary dispatch channel or a separate tact channel. The incident cited above may have been averted had the field units talked directly to each other on the same tact channel.

Recommendation 8: Assign multiple units on an incident to the same tactical channel.

The Edgewater incident highlighted another situation that may have prevented the fatality. By law, only EVAC may transport patients. Fire departments with transport capabilities are strictly forbidden from transporting. On this incident, noting there was a delay in EVAC, Edgewater requested permission to transport. That request was denied.

Several years ago Deltona was fined $2,000 for transporting a person with severe chest pains after waiting 17 minutes with no EVAC ambulance on the scene. If city first responder units are capable of transport and have a qualified crew, then the patient's condition would dictate who transports. A similar situation exists in St. Petersburg, FL, where fire department first response units that are transport capable are available. We suggested a protocol that if the patient's condition meets the criteria for MPD Level D or E, and after initial assessment and treatment and the transport unit's ETA is greater than five minutes, then the first responder can elect to transport, without being subject to penalty.[17] Volusia County is a large county. EVAC's staffing by demand works well and saves money. However, there are occasions when demand may exceed EVAC's capabilities and a contingency plan would best serve all parties.

Recommendation 9: Create a protocol where fire departments whose first responder vehicles have transport capability could transport patients under specific situations. This action may necessitate the issuance of a limited COPCN.

[17] SPC/TriData. (2009). Preliminary Report on EMS in St. Petersburg, FL. (Not available). Arlington, VA: SPC/TriData.

The Sheriff's Office is in the planning stages to build a dispatch center combining the current VCSO's communication center with VCSO's Fire Medical Dispatch Center. The merging of the two systems will reduce costs while enhancing the overall dispatch and communication process. A single PSAP could provide consistency in communications and best serves all residents of Volusia County, regardless which city they resided in. Deltona's 9-1-1 calls are already received by VCSO's communication center. The Sheriff provides law enforcement under contract to Deltona's 84,000 residents. Deltona Fire employees eleven people to dispatch fire and medical calls for their department and for Orange City.

Information was not provided on Deltona's cost to operate their dispatch center. Orange City's 9-1-1 calls are received by VCSO. Orange City's police department is dispatched by VCSO but fire and medical alarms require VCSO to transfer the call to Deltona for dispatch. Orange City provides fire rescue to DeBary. DeBary's 9-1-1 calls are received by VCSO who provides law enforcement under contract but are required to transfer the calls to Deltona for fire dispatch.

Orange City pays Deltona $68,906.46 for dispatching Orange City Fire Rescue with a projected 10.23% increase to $75,955.51 for FY 10–11. Ponce Inlet is a primary PSAP dispatch center who dispatches their police department but transfers their fire rescue calls to RCC to dispatch their fire department. RCC is a primary PSAP center providing regional police and fire rescue dispatch services to the cities of Edgewater, New Smyrna Beach and Port Orange. Additionally, Ponce Inlet and South Daytona contract with RCC for fire dispatch. RCC was created under a joint agreement between the cities of Edgewater, New Smyrna Beach and Port Orange.

The fire rescue departments RCC dispatches have operated under a closest unit agreement since RCC's inception. All five of the current fire rescue departments served by RCC utilized the same response protocols. The response system is functionally consolidated.

Relaying information can create communication difficulties, and cause delays when trying to provide optimum services. A single unified dispatch center would assist in resolving issues that arise between dispatch centers when information has to be relayed. The value of Deltona, RCC and Ponce Inlet's dispatch centers can only be weighed by their communities elected officials. The importance and community value of these centers versus overall cost and efficiencies should be considered by managers when preparing annual budgets. The 9-1-1 monies charged on every phone bill are paying for the equipment portion of the dispatch centers which is not part of the center's annual budgets. In 2009, 9-1-1 monies spent to maintain these three centers was $61,294.87 for Deltona, $183,387.24 for RCC and $38,452.41 for Ponce Inlet.

Recommendation 10: To provide for maximum efficiency, the County should merge all 911 resources under the VCSO.

VI. MERGING MODELS

Our contract requires we preserve the vested rights of employees and are prohibited from recommending the elimination of any currently filled positions. The study was designed with the intent that all employed now would be employed within any merged system. Persons would be employed without loss of pay, but not necessarily in their current position or with their current rank. There also could be planned attrition under a countywide merger.

With these restrictions, any immediate personnel cost savings would be minimal. What is known, there are 740 authorized positions between all departments. Due to budget constraints, only 727 are filled. As this report was being prepared, local governments were facing another tough budget year with reductions in taxable assessed property values. Local governments will have two options; increase taxes or cut services.

Single Dependent Fire Rescue District

A single dependent district would merge all Volusia municipal fire departments with Volusia County Fire Services. As a single district, the County Council would have the potential to lower the overall cost in delivering fire and rescue services while increasing efficiencies. Station locations and personnel needs could be addressed without regard to municipal boundaries. Equitable services would be provided throughout the County. The smaller municipalities would not have to rely on their neighbors to provide required back up in order to meet the State's two in/two out rule. The larger municipalities would no longer be subsidizing the smaller cities' fire services.

There are currently 727 personnel working in fire rescue services. There are 45 uniformed administrative personnel and 629 line personnel assigned to the field. There are 53 non-uniform (civilian) employees. The total operating budget for FY 09–10 is $80,444,953. To fund this on a countywide bases at the current FY 09-10 assessed property values, a fire tax millage rate of 2.75065 would be required, based on a 95% collection rate with an assessed taxable value of $30,785,018,748. Table 15 lists the Equivalent Fire Tax Millage Rate for each fire agency

Table 15: Equivalent Fire Tax Millage[18]

Department	Equivalent Fire Tax Millage
Daytona Beach	3.0377
D.B. Shores	1.0736
DeBary	0.5219
DeLand	2.4629
Deltona	3.8000
Edgewater	3.3953
Holly Hill	3.0640
New Smyrna Beach	1.7891
Orange City	2.3600
Ormond Beach	2.0276
Ponce Inlet	1.3460
Port Orange	3.0222
South Daytona	2.8953
Volusia County	3.73276

On a population basis after merging departments, 377,940 residents would see their overall tax rate decrease while 129,089 would see a tax increase.

Minimal savings are usually achieved during the initial years of a merger until the new organization restructures through employee attrition. In addition each municipality could expect to save approximately 5% of their fire departments budget due to changes in work load and ancillary cost borne by other effected city departments.

Multiple jurisdictions built fire stations based on their specific jurisdictional boundaries. A single unified district would facilitate closing fire stations where service areas overlap and relocate others to best serve the overall system.

Fire stations in Orange City, including the unincorporated areas surrounded by Orange City, and the City of DeBary have built facilities based on jurisdictional needs alone. Orange City and the unincorporated areas do not require four fire stations. The City of DeBary is underserved with one fire station. Within the past six years, two previous studies indicated DeBary needed two stations. Orange City's fire chief recommended a second location needed at a minimum for a rescue unit.

Recommendation 11: Upon merging, close Volusia County Station 31.

Recommendation 12: Upon merging, leave Orange City Station 68 as a temporary station.

[18] Pearson Product Moment Correlation showed a moderate positive correlation (+.6) between equivalent fire tax millage and the number of employees. Logic would dictate that the correlation would be higher.

A review of the Orange City-DeBary corridor shows the need for three properly located fire stations.

By July 2010, Deltona has plans to begin constructing an additional station at the intersection of Catalina Blvd and Howland Blvd. The Fire Rescue Department already has the personnel and apparatus to staff the station.

Recommendation 13: Regardless of any mergers, begin constructing Deltona Station 65 in July 2010.

Recommendation 14: After merging, develop plans within three to five years to relocate Orange City Station 68 to the area of Saxon Blvd and Volusia Ave, Orange City.

Recommendation 15: After merging, develop plans coinciding with Station 68 to relocate DeBary Station 33 to the vicinity of Dirkson Blvd and US 17-92.

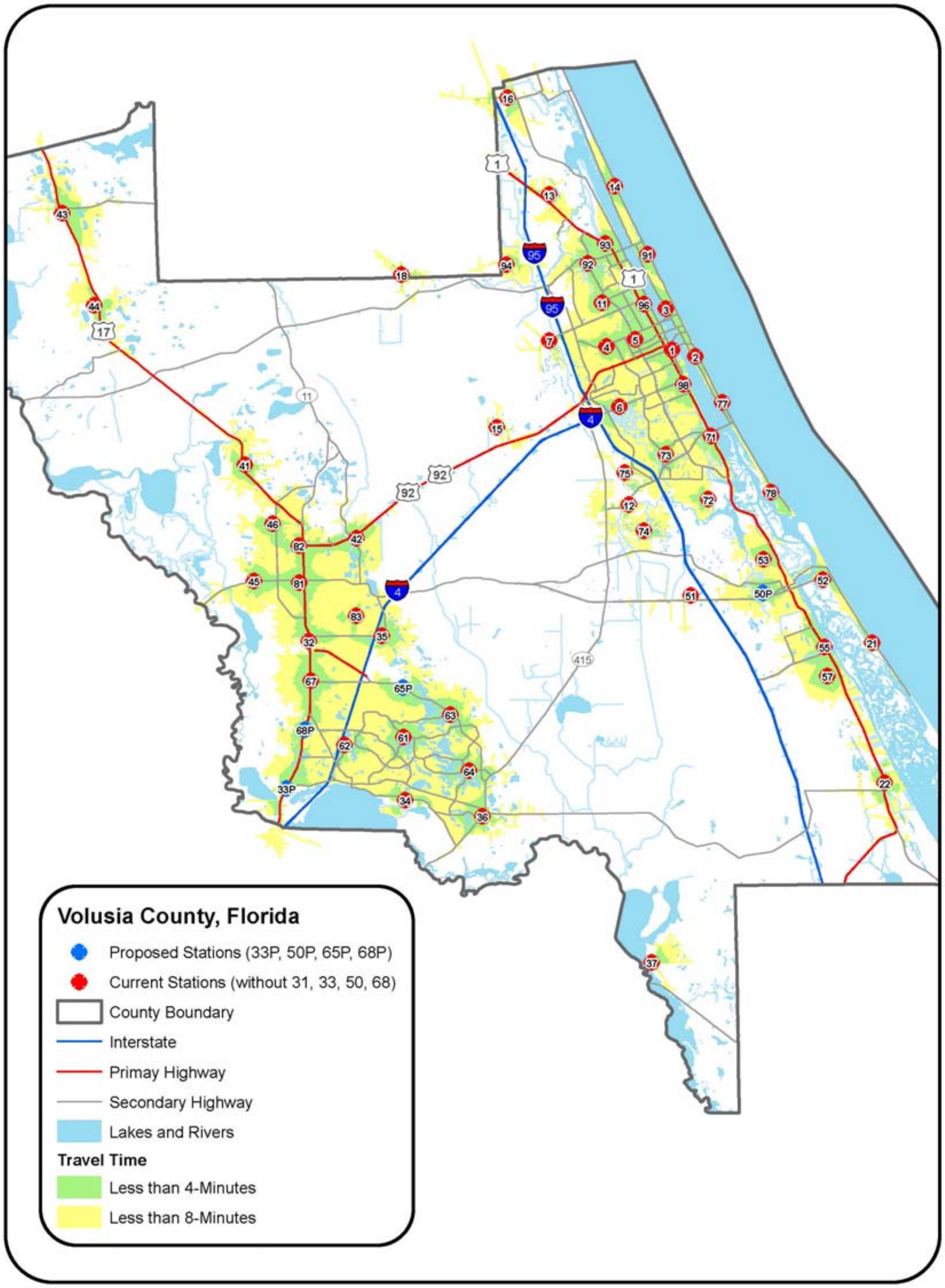
New Smyrna Beach Station 50 is out dated and in dire need of replacement. Station 50's response area overlaps with Volusia County Station 23, Turnbull. Station 23 sits on three acres of land.

Recommendation 16: Upon merging, close Volusia County Station 23.

Recommendation 17: After merging, develop plans to remodel Station 23 within two to three years and relocate Station 50 to this location.

Figure 4 shows the 4 and 8 minute response areas with the above recommendations.

Figure 4: Proposed Countywide Map



The following three organizational charts place all existing personnel, with the exception of Deltona's eleven dispatchers, within the system. Their experience and with the increased call demand on VCSO's fire medical dispatch it is assumed these persons would be able to relocate and dispatch for VCSO. Additionally, the number of civilian employees exceeds the capacity to place everybody within the new organization. The additional cost levied by VCSO for the increase in work load is not obtainable at this time.

Figure 5: Proposed Merged Fire Organization

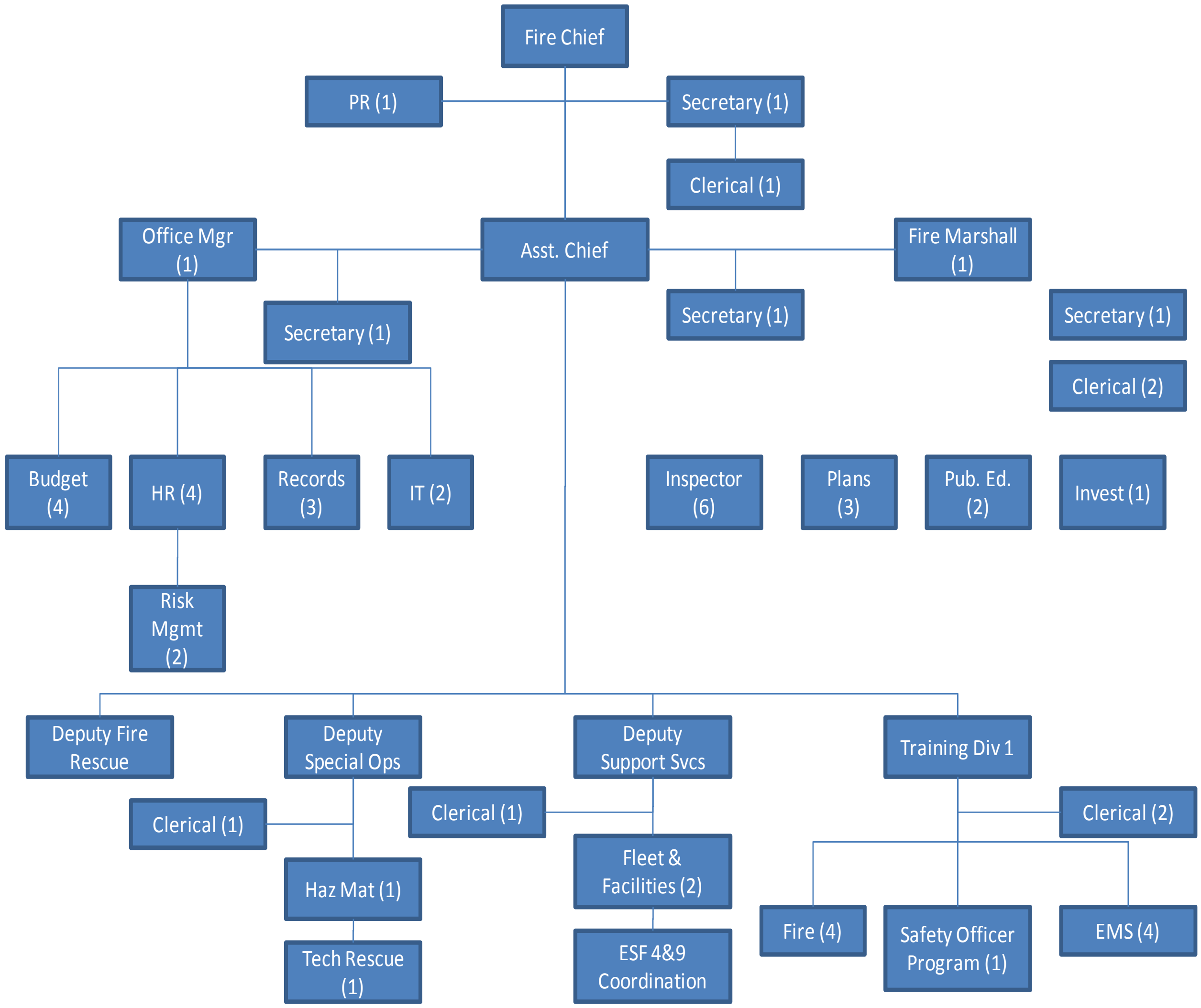
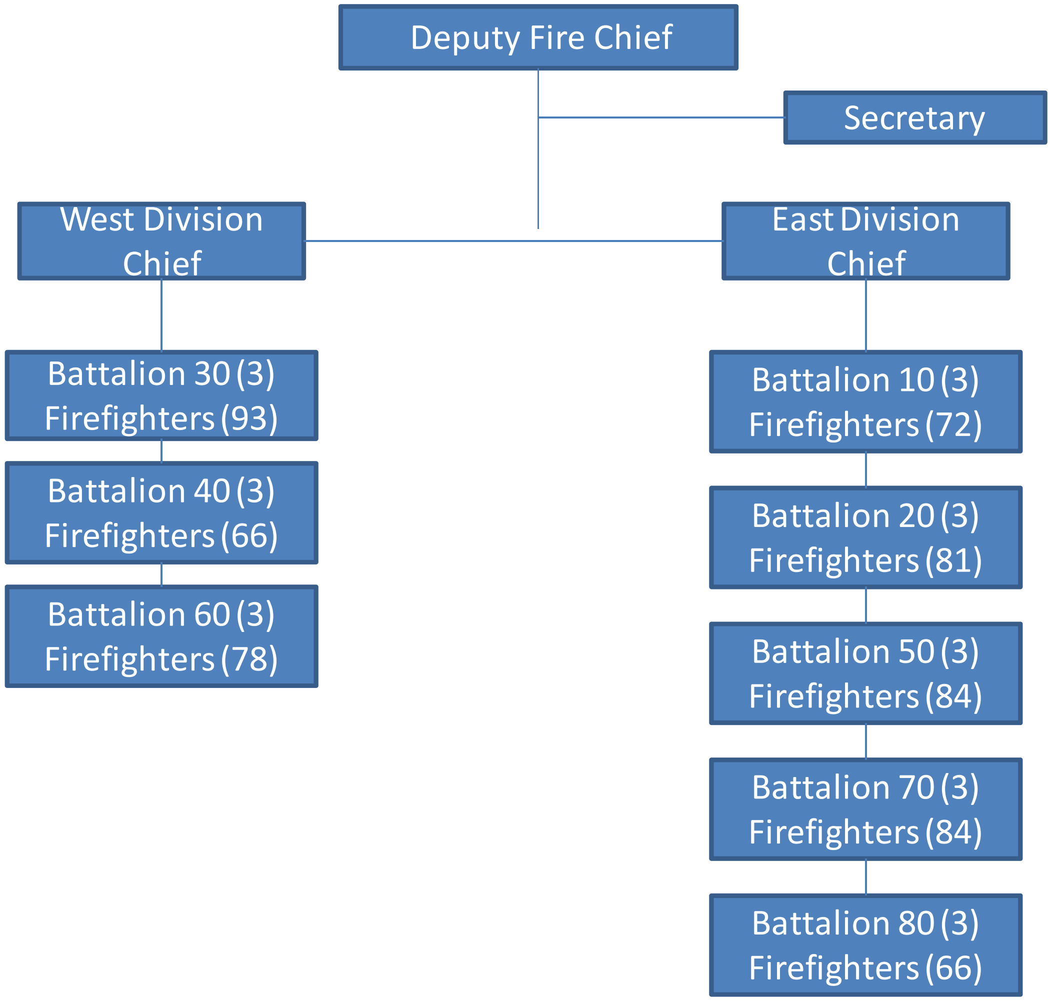


Figure 6 represents those who would be assigned to the fire rescue division.

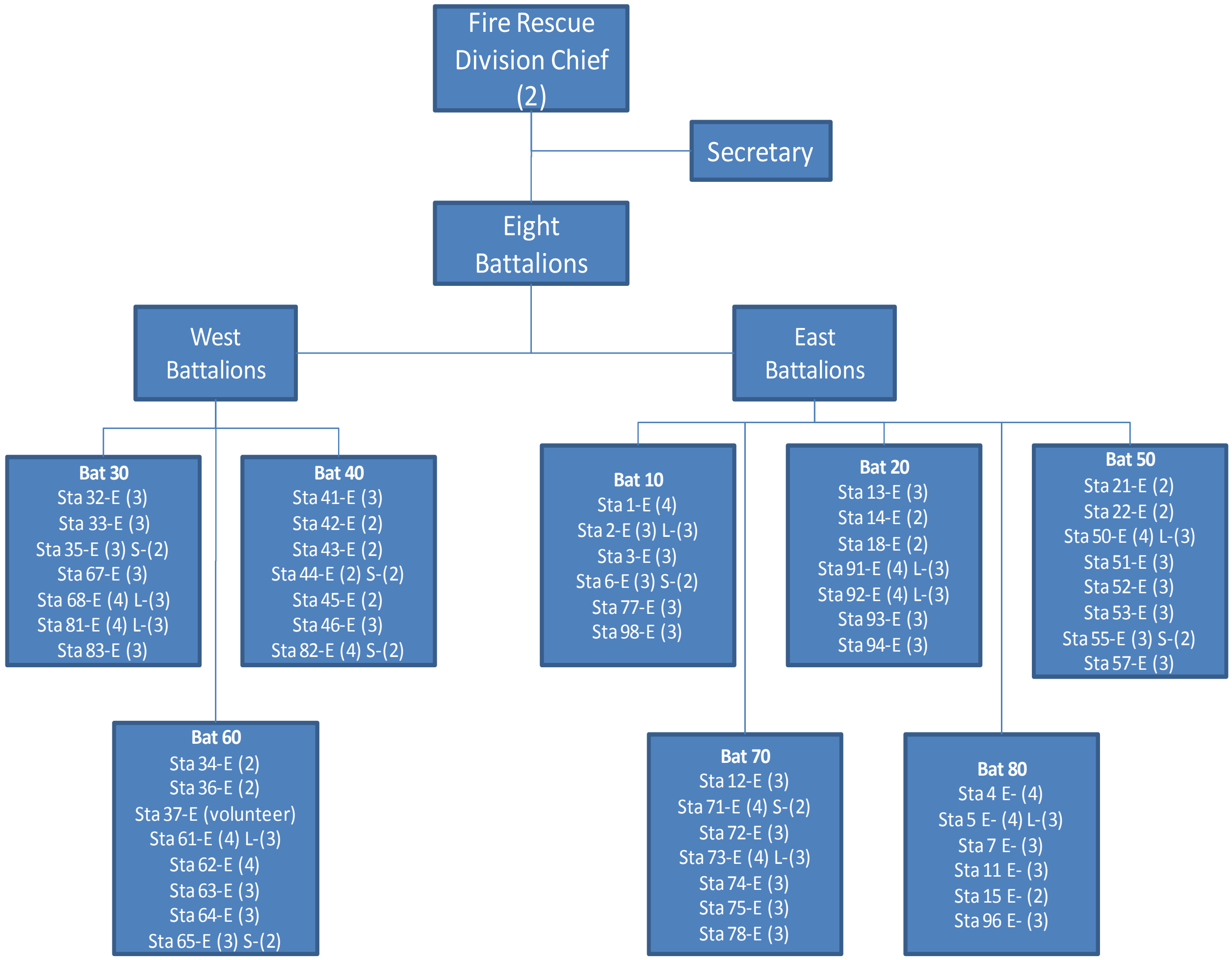
Figure 6: Organization Chart for Fire Rescue Division



Numbers in parenthesis represent the number of personnel in the position

Figure 7 shows the fire rescue division staffing needed to preserve the 24/48 schedule, and an average 56-hour workweek.

Figure 7: Fire Rescue Division Staffing



Numbers in parenthesis represent number of personnel assigned to the unit.

Through attrition the organization can adequately function with a reduction in the following administrative personnel: 1 – fire training specialist, 1 – EMS training specialist, 1 – ESF 4/9 coordinator, 3 – 24/48 hour division chiefs, 1 – budget analyst, 1 – risk management, and 1 – HR specialist for an estimated savings of $749,559. Table 16 describes the above savings.

Table 16: Potential Savings by Attrition

Position	Wage	FICA	Insurance	W/C	Pension	Uniform, misc
Fire Training	$55,000	$4,207	$5,525	$1,518	$15,675	$1,300
EMS Training	$55,000	$4,207	$5,525	$1,518	$15,675	$1,300
ESF Coordinator	$55,000	$4,207	$5,525	$1,518	$15,675	$1,300
Division Chief (3)	$225,000	$17,212	$16,575	$6,210	$64,125	$ 3,900
Budget Analyst	$32,500	$2,486	$5,525	$897	$3,770	$275
Risk Mgr	$47,500	$3,634	$5,525	$1,311	$5,510	$275
HR Specialist	$42,500	$3,251	$5,525	$1,173	$4,930	$275
Total	**$512,500**	**$39,204**	**$49,725**	**$14,145**	**$125,360**	**$8,625**

After merging, and through attrition the work load does not require four fire or EMS training specialists. The ESF Coordinator is currently a function by an existing captain in Volusia's organization and does not require a full time assignment. The proposed merged organization has two 24/48 hours division chiefs for a total of six positions. The fire incident rate requiring a senior chief officer, along with the number of battalions allows for one 24/48 hour shift division chief to accomplish daily management tasks. As with the training specialist, the work load does not support the need for multiple budget analysts, risk managers or HR Specialist once the organizations have merged and attrition begins to take place.

NFPA 1710 requires four firefighters on every engine or ladder truck. Unfortunately, fewer places continue in the United States can afford to continue meet the staffing criteria. Some departments have settled on hiring sufficient personnel in order to maintain three personnel on an engine or ladder truck. In Volusia County, the larger cities maintain three personnel on an engine while the smaller locales have reduced their minimum staffing to two persons. Volusia County's minimum staffing is two personnel in 14 out of 21 fire stations

Under the current system, when combining the 13 fire rescue departments 210 firefighting personnel per shift staff 58 fire stations. (Station 65 is considered staffed for this section since the personnel are employed.) Minimum staffing is 176 personnel including 12 battalion chiefs leaving 164 personnel to staff fire apparatus.

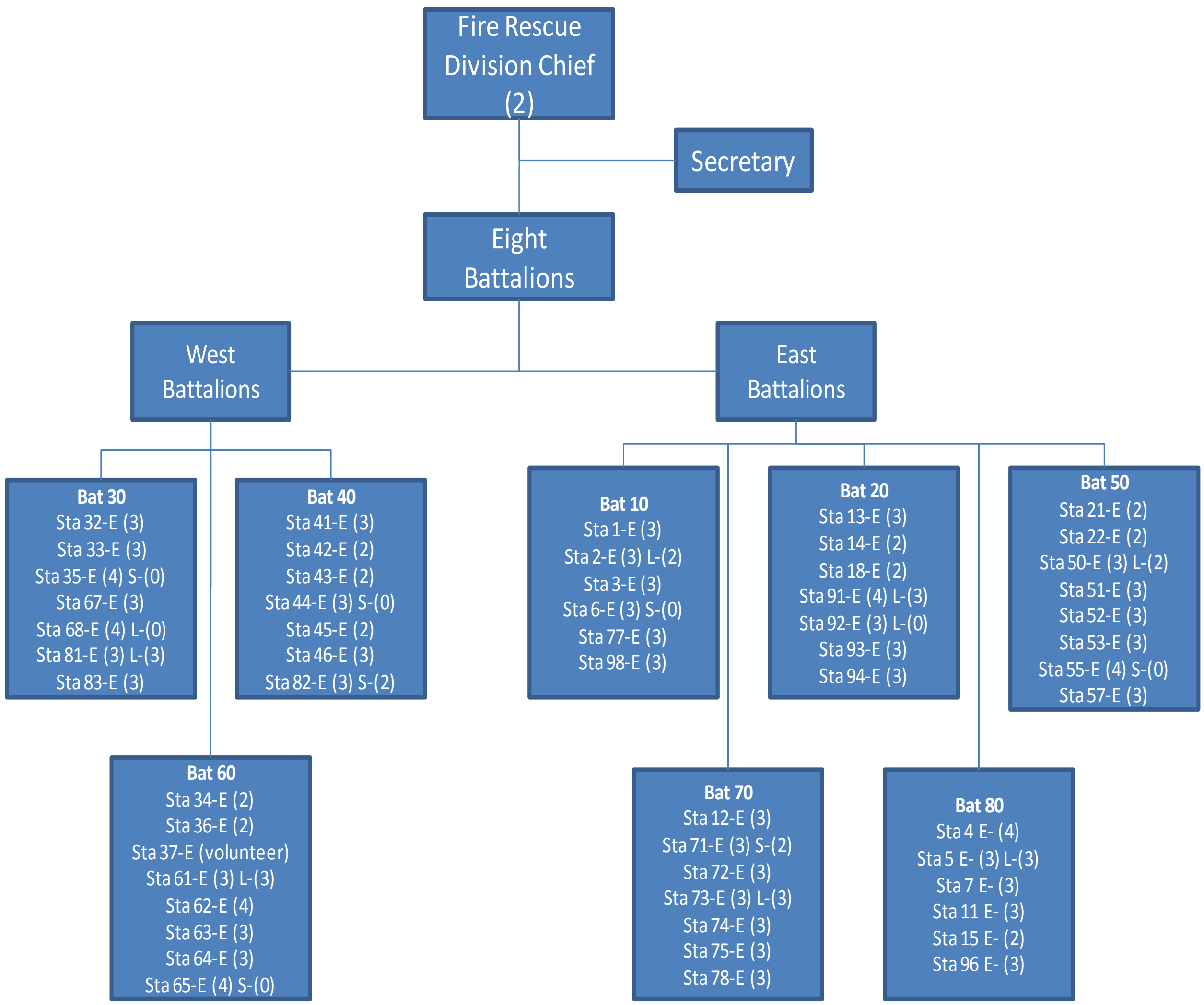
Our recommendation staffs 56 fire stations with full staffing at 218 firefighting personnel including 8 battalion chiefs and 2 shift division chiefs leaving 208 personnel to staff fire apparatus per shift. Minimum staffing would be 183 with 174 personnel to staff two less fire apparatus per shift while maintaining eight battalions. Staffing levels are increased across the board over the current system placing more personnel in the field.

Through attrition, the number of firefighting personnel can be reduced by 72 for an estimated savings of $5,040,000. This would put full staffing at 194 personnel with minimum staffing at 176 with 168 personnel to staff fire apparatus while maintaining eight battalions. Figure 8 depicts unit staffing after attrition.

Combined savings through attrition, including administrative personnel is approximately $5,789,560. Assuming taxable assessed property value of $30,785,018,748 the fire tax millage at 95% collection rate would be 2.55269 mils.

Recommendation 18: Merge all departments with Volusia County as a dependent fire district.

Figure 8: Shift Staffing for Merged Department



Single Independent Fire Rescue District

In a memorandum to Howard Tipton from Jonathan D. Kaney Jr., Attorney at Law, (Appendix 1) there are two ways an Independent Special District can be created to provide unified fire rescue services.

The first is through ordinance under Florida Statute 125.05 that with approval of the governing bodies of the included cities, the County may create an independent district that includes both incorporated and unincorporated areas. The governing body of the F.S.

125 district may include a combination of city and county governing board members. A millage rate cap would be set by ordinance that would require voter approval to enact. The St. Lucie County-Ft. Pierce Fire District is an example of a F.S. 125 independent district.

The second method of creating a county wide independent fire district is by a special act of the Florida Legislature. Generally, an independent fire district created by special act has its governing board elected from the general electorate. Mr. Kaney has opined that the governing board of an independent district created by special act need not be elected but could be chosen otherwise. Regardless of which method of creating an independent district, the governing board is independent of any current municipal or county governing body. The independent board is responsible for the hiring of the fire chief, establishing board policy governing purchasing procedures, approving an annual budget and establishing a tax millage rate. An independent district eliminates the cities' potential objection to county control. It is the creation of a new level of government specializing in fire rescue services.

The organizational structural for a single independent fire rescue district is identical to the dependent district as set forth above.

The cost to operate an independent district whose structure mimics the previously recommend dependent district is approximately$500,000 to $1,000,000 more. Additional expenses will be incurred for the governing board, especially if the board is elected from the general electorate where elections would be required every other year. The organization will require a headquarters facility to house all office staff. Additional expenses are required for board meetings, advertising, legal representation, and auditors. Cost for health insurance would most likely increase since the organization would not have the same bargaining power as the larger county government.

One consideration for the budget is to maintain a reserve fund equal to 15% of the operating budget. The current budget has $6,000,000 in reserve and would require an additional $6,000,000. This can be accumulated over a three year period without causing a tax increase to raise the funds. Approximately $4,789,560 can be saved after attrition if the single independent district is established. The tax millage rate for a single independent district is 2.58688 versus 2.55269 for the dependent district.

Merging the departments will require the services of one dispatch center versus the current three.

Recommendation 19: An Independent District should contract with VCSO for fire and rescue dispatching services.

If the communities opt for a unified independent district the recommendation is pursue independency utilizing the F.S. 125 option and avoid creating a board from the general electorate.

Other Merging Options

Each municipality believes that the services they provide is the best possible service to their citizens. The governing bodies believe in home rule and their right to choose what services they desire to provide. Fire rescue services have always been one of the main stays a community has provided from the date of the city's origins.

Most career departments in Volusia County began as volunteer organizations. Strong ties existed between the community and the volunteers as each depended on the other. Today, in Volusia County, there are less than 50 active volunteers who are able to enter a burning structure to fight a fire. All departments have evolved into career organizations.

The political environment may prevent the cities from merging with the County unifying all fire services. Regardless of the savings, enhanced delivery of services, or economy of scales, some cities may continue to "go it alone." One option is to create two independent districts; one on the east side of the County and one on the west side. The following discussions basically separate the single unified district into two separate districts. The 727 employees in the unified district are placed within one of the two districts.

Each municipality's budget is accountable for in its respective district. VCFS' budget is divided between the two district with 47.27% attributed to the east district and 52.72% accounted for in the west district.

The following options discuss each type of district as being independent. These same districts could still be dependent districts with the County establishing each as a municipal service district. Although not calculated, the savings listed for each district would be a little higher than what is listed for each independent district.

Eastside Independent District

An east side district would include the cities of Daytona Beach, Daytona Beach Shores, Edgewater, Holly Hill, New Smyrna Beach, Ormond Beach, Ponce Inlet, Port Orange, South Daytona and the areas served by Volusia County Fire Services battalions 10 and 20. There are currently 454 employees associated with the Eastside District. Figure 9 organization chart places 454 employees.

The assessed taxable property values in the district are $21,651,311,755. The combined budget for the cities and a 47.27% share of VCFS budget equals $51,734,333. A tax millage rate of 2.51519 would be required to fund the current combined budgets. Not included in the millage rate are required reserve funds or additional expenses for an independent governing board, as referenced in the previous independent fire district discussion.

Figure 9: Eastside District Organization Chart

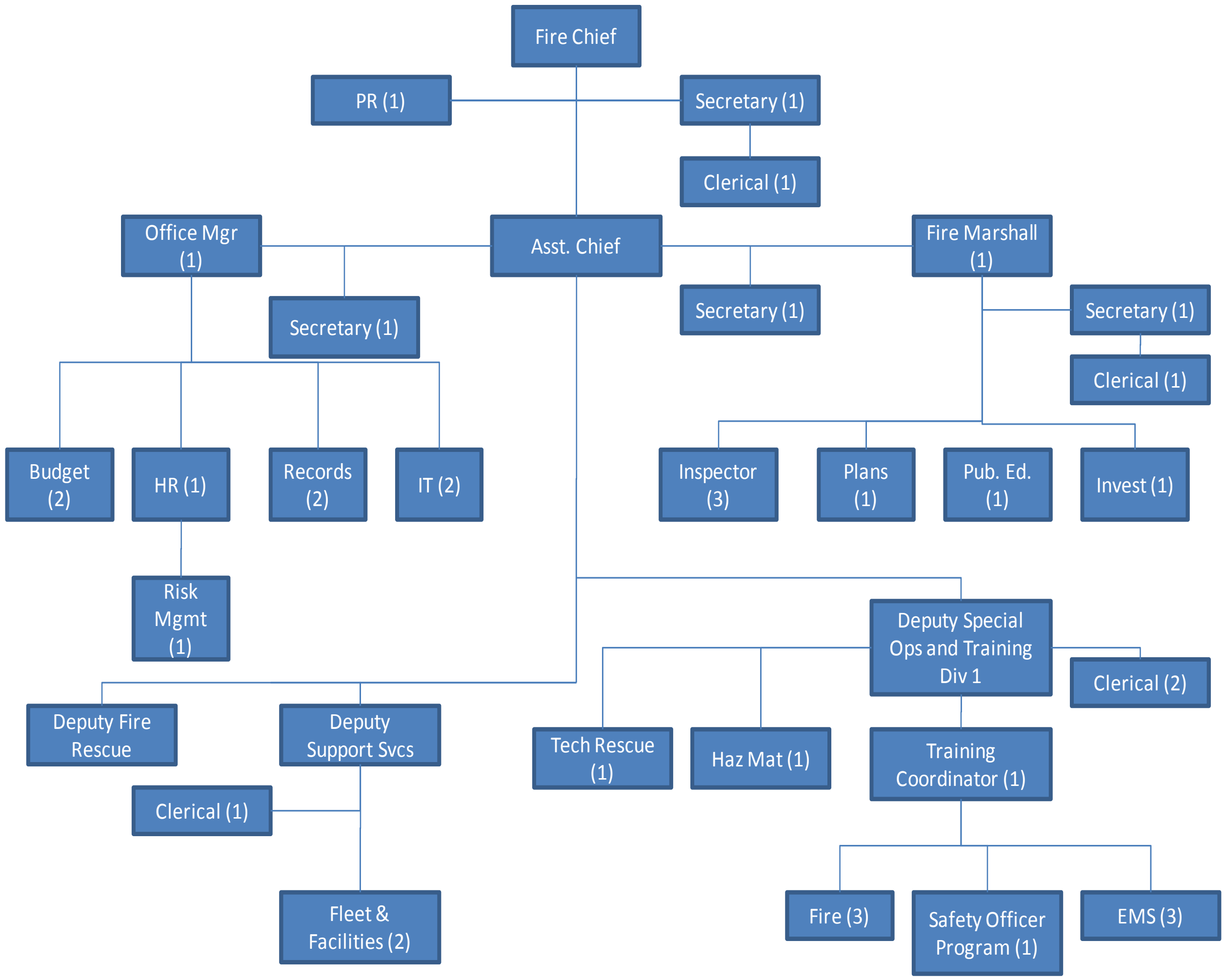
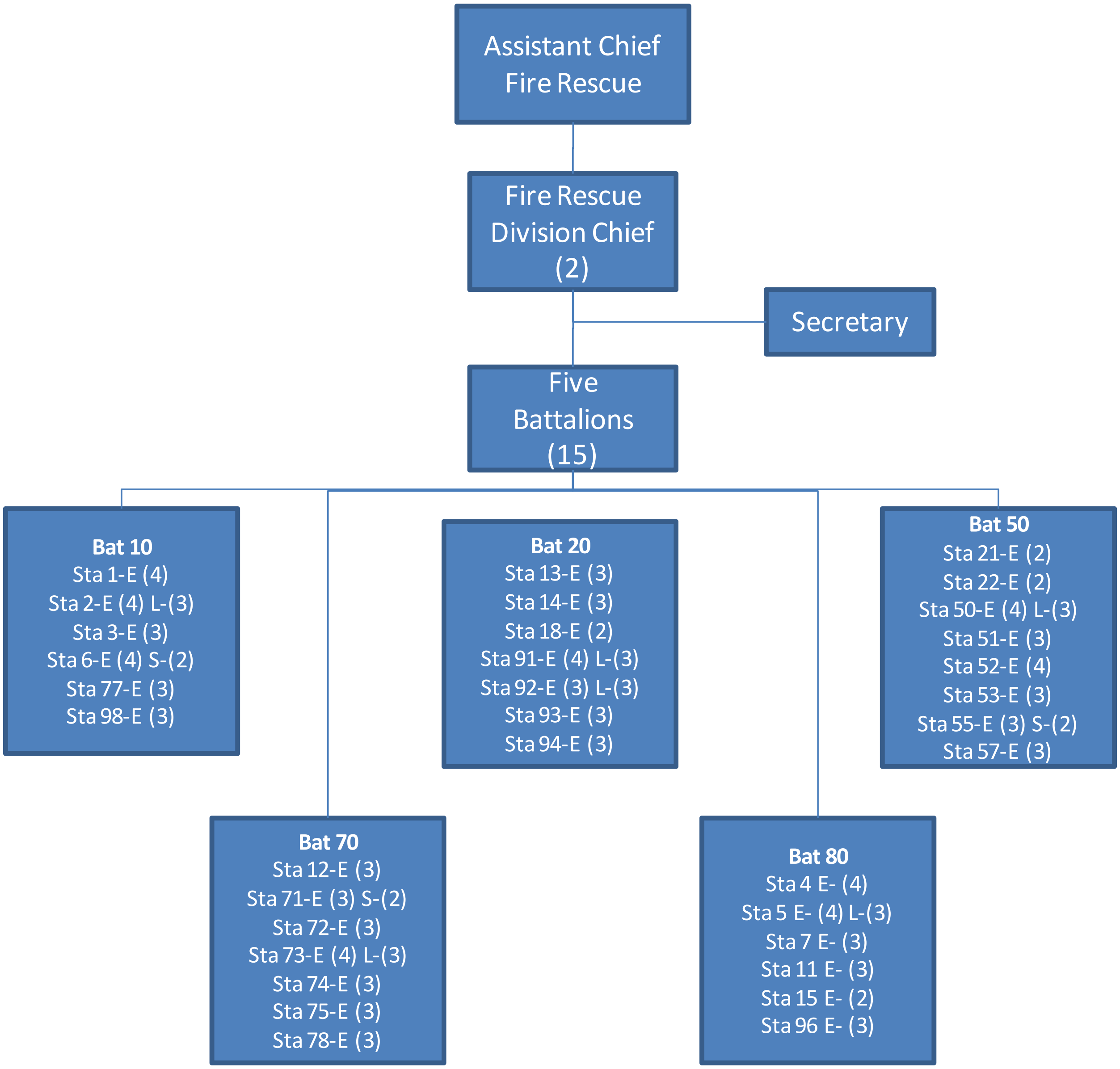


Figure 10 shows the proposed staffing for an independent Eastside district.

Figure 10: Eastside Independent District Staffing

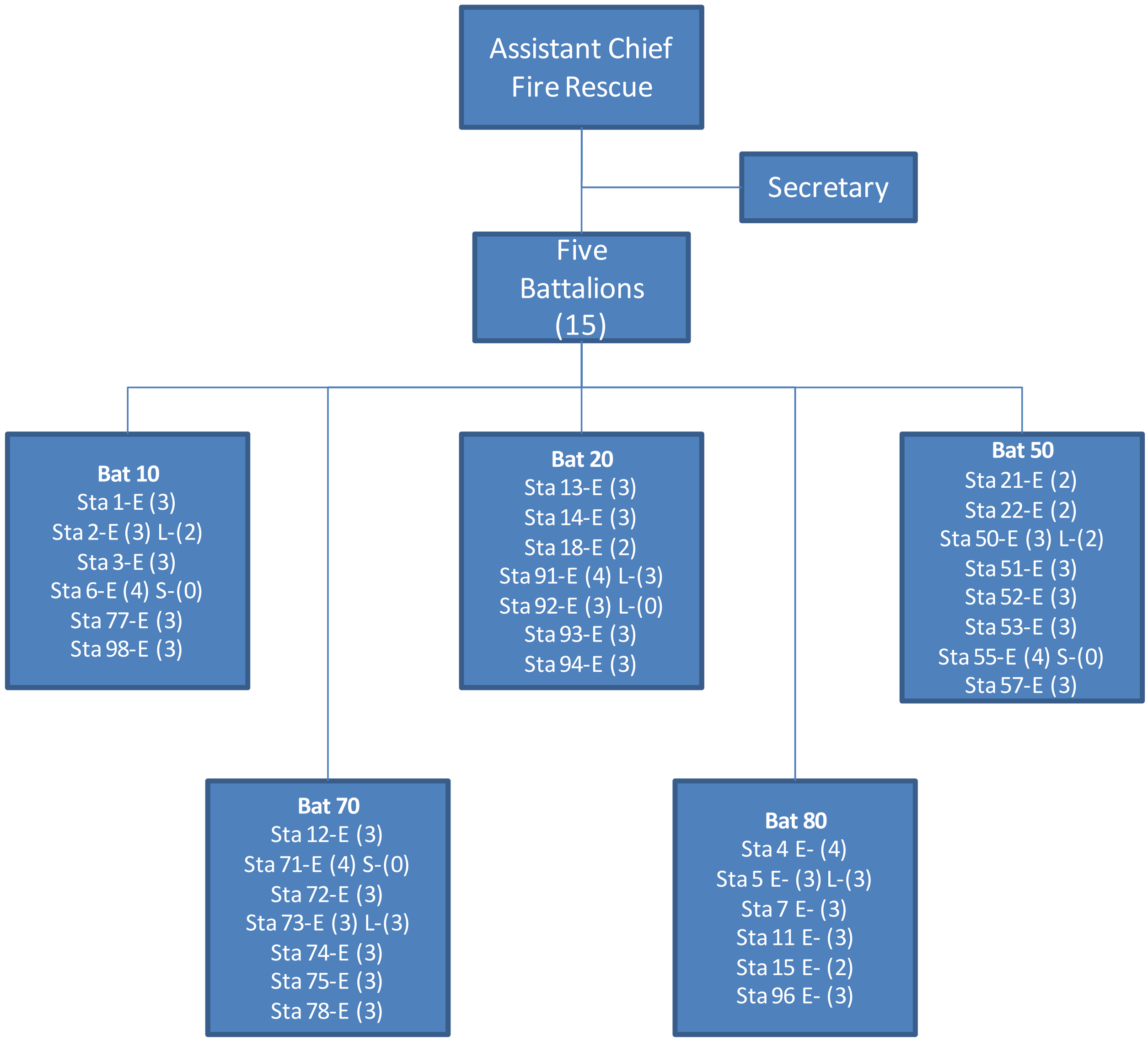


There are 137 personnel assigned to shift. This includes five battalions, down from the current seven, and one 24/48 division chief, placing 131 personnel on fire apparatus.

Attrition could reduce the firefighting forces by 45 resulting in a savings of $3,150,000 and maintain better than current minimum staffing levels. Additional savings may be achieve through attrition with the reduction of 1 fire training specialist, 1 EMS training specialist, 1 safety officer program manager, 3 24/48 division shift chiefs for an additional $480,000. Figure 11 depicts shift staffing after attrition.

After attrition, the tax millage rate necessary to generate the $48,104,333 operating budget is 2.33871. Figure 11 describes staffing for the eastside after reduction by attrition.

Figure 11: Post-attrition Eastside Staffing

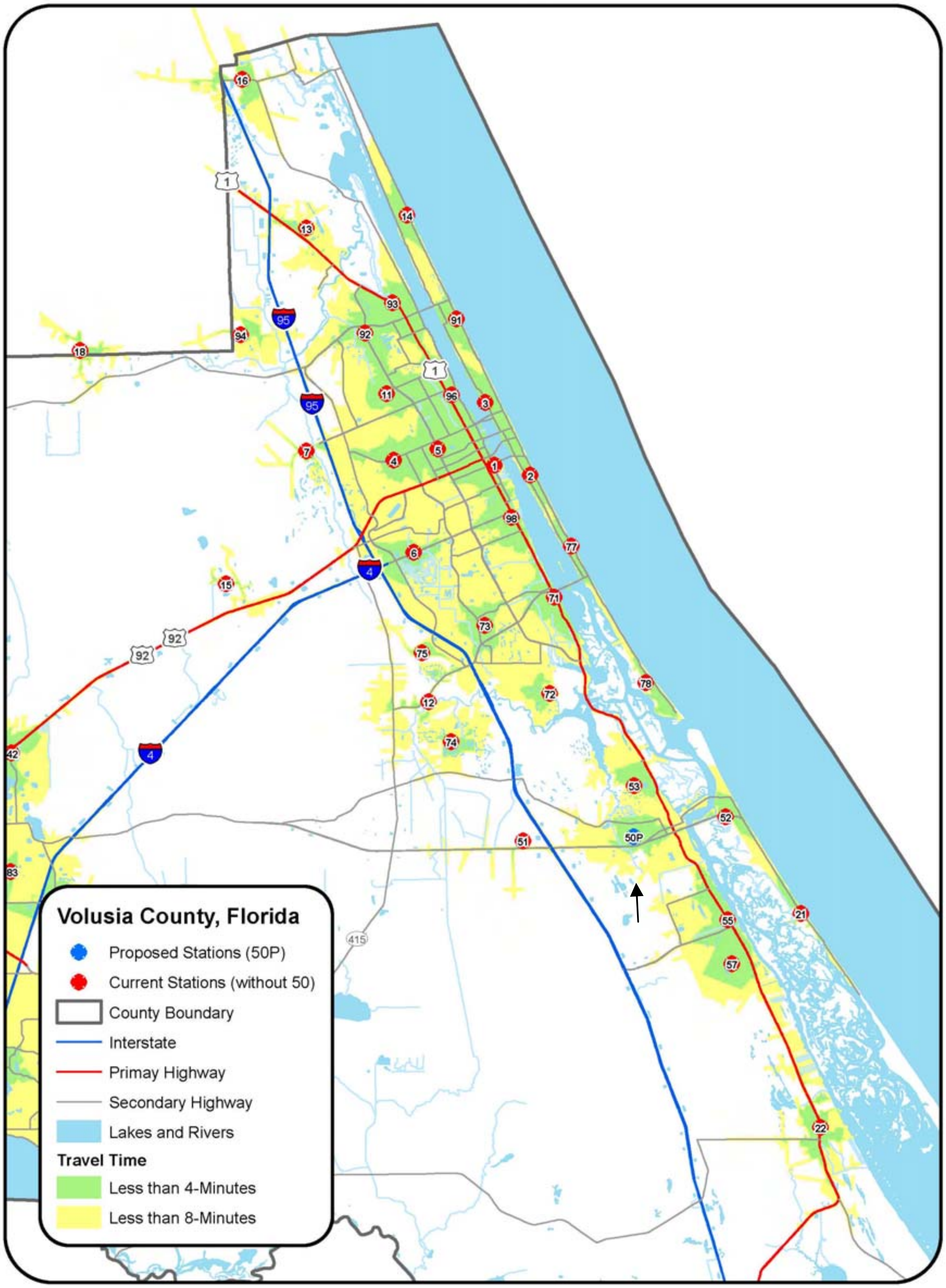


The Eastside District departments are currently dispatched by VCSO or RCC. The greater call volume is currently handled by VCSO.

Recommendation 20: The Eastside Independent District should contract with VCSO for fire rescue dispatching services.

Figure 12 below shows the location and the four and eight minute drive times for each station in the Eastside Independent District

Figure 12: Map of the Proposed Eastside



Westside Independent District

A west side district would include the cities of DeBary, DeLand, Deltona, Orange City and the areas served by Volusia County Fire Services battalions 30 and 40. There are currently 273 employees associated with this district.

The assessed taxable property values in the district are $9,133,706,993. The combined budget for the cities and a 52.72% share of VCFS budget equals $28,707,906. A tax millage rate of 3.30849 would be required to fund the current combined budgets.

There are two issues that cause the Westside District's millage rate to exceed the Eastside District's by approximately 1 mil. First, Deltona's budget includes eleven dispatchers increasing their budget substantially as compared to all other municipalities. Second, DeBary's fire rescue services cost equates to $47.16 per capita while the County and the twelve cities with fire departments average $168.02 per capita. In essence, DeBary is getting a great bargain while its neighbors subsidize the service. Not included in the millage rate are reserve funds or additional expenses for an independent governing board, as referenced in the previous discussion on independent districts.

Figure 13 outlines the administrative structure for the Westside District. There are 39 administrative positions including the Deputy Fire Rescue Chief. The eleven dispatchers have not been accounted for with the assumption they would relocate to VCSO Fire Medical Dispatch. There are 72 fire fighting personnel per shift including one shift division chief and three battalion chiefs. Minimum staffing would be 62 fire personnel including the three battalion chiefs.

Figure 13: Western Division

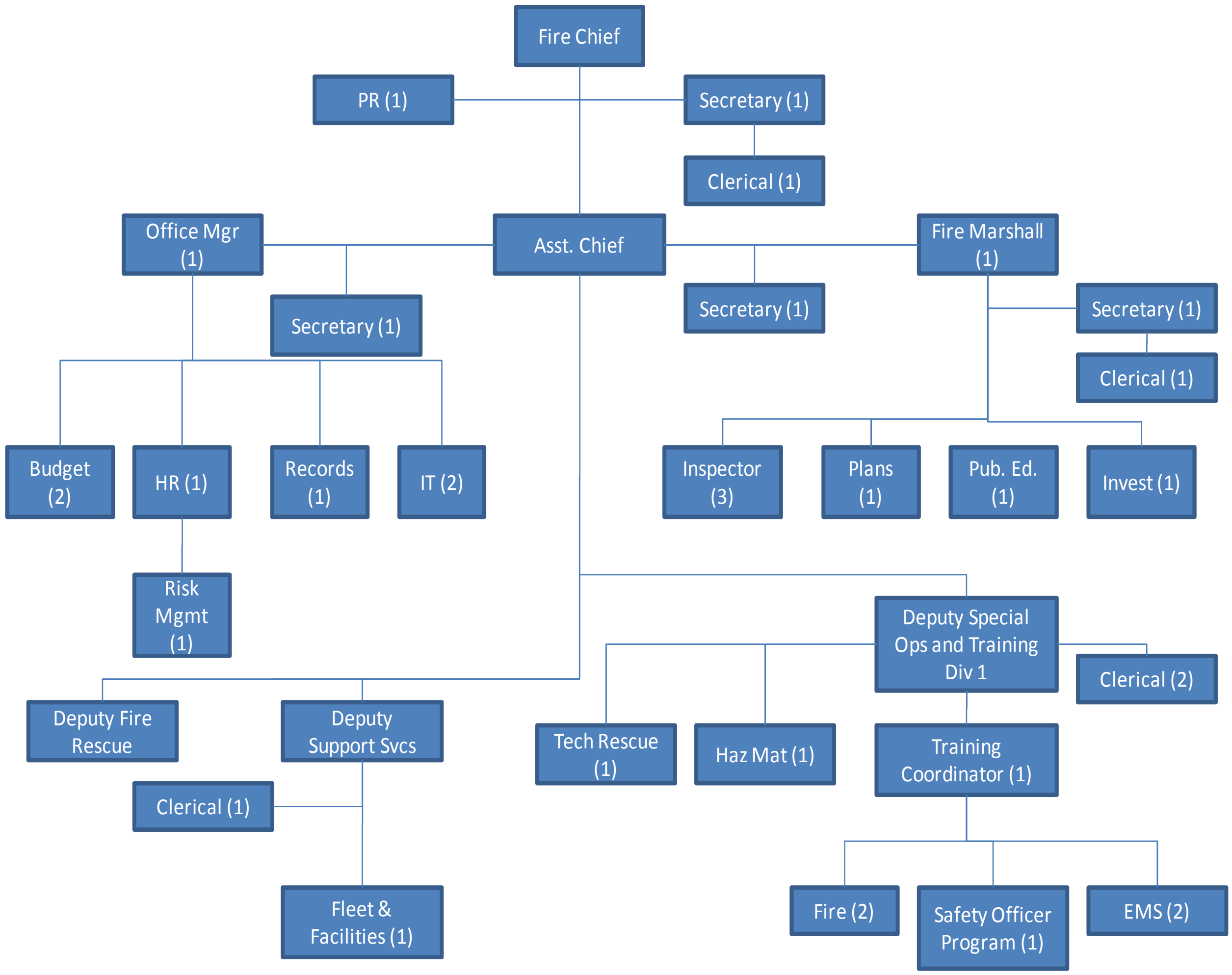
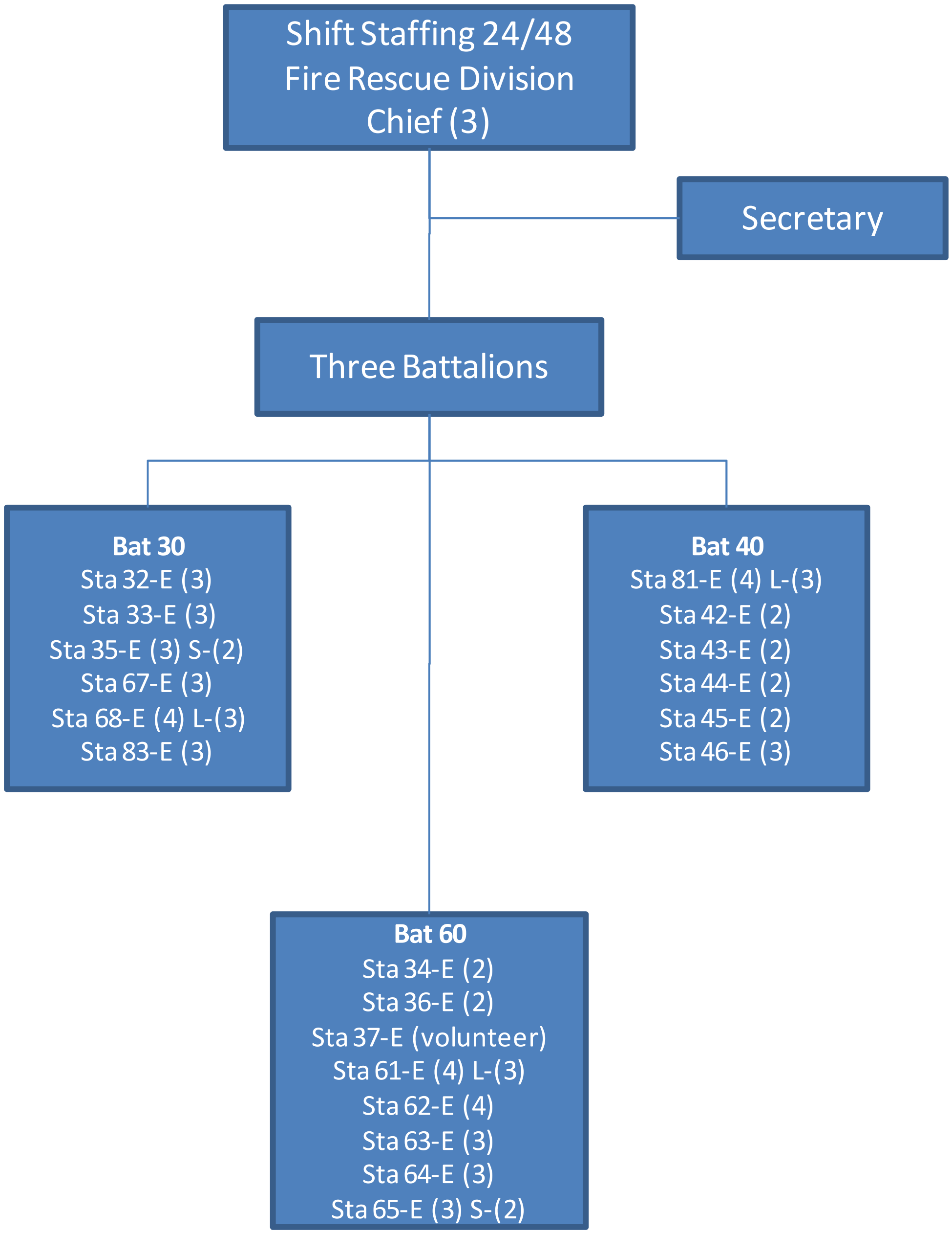


Figure 14 depicts unit staffing and the companies assigned to the Westside.

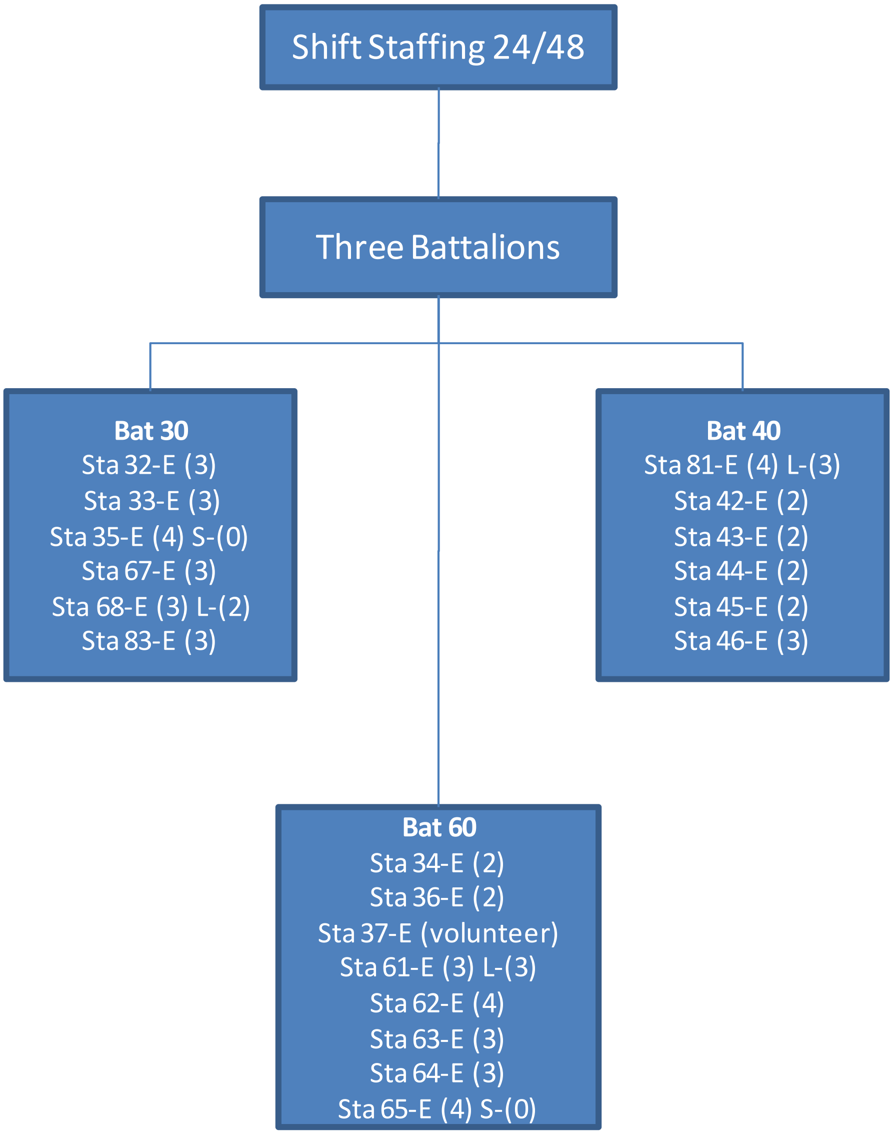
Figure 14: Westside Staffing



Through attrition, fire fighting forces could be reduced by 15 personnel resulting in a savings of $1,050,000. Additional savings can be achieved through the reduction of three shift division chiefs, one secretary and the safety program manager for an additional $476,000 reducing the budget by $1,526,000. The tax millage rate to fund the $27,181,906 budget would be 3.13263.

Figure 15 shows apparatus staffing after attrition. There are 64 fire fighting personnel including three battalion chiefs with minimum staffing at 55.

Figure 15: Westside Staffing After Attrition

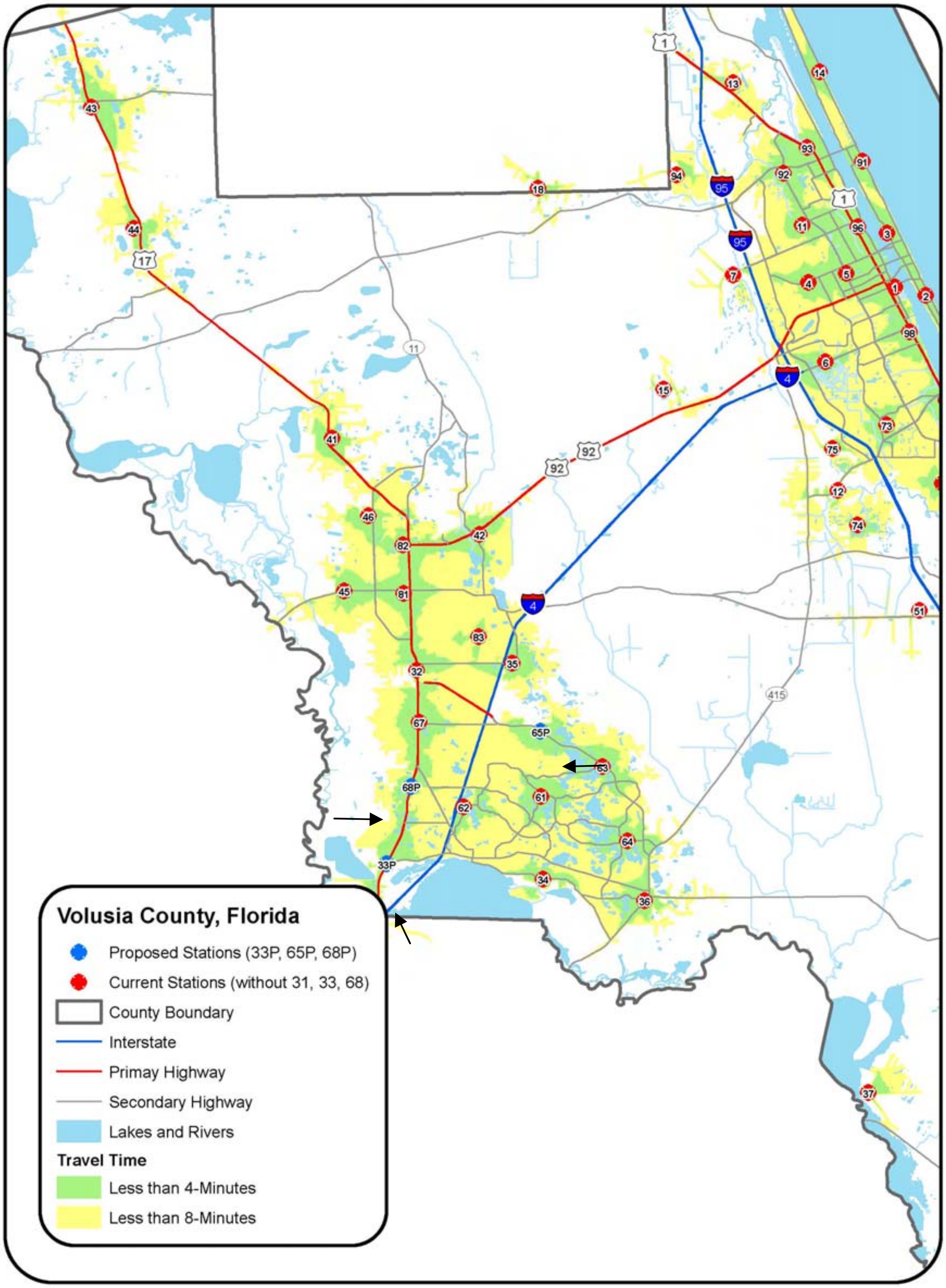


Deltona and VCSO currently handle the dispatching of fire rescue departments in the Westside District. VCSO handles a larger call volume than Deltona.

Recommendation 21: The Westside Independent District should contract with VCSO for fire rescue dispatching services.

Figure 16 shows the location and the four and eight minute drive times for each station in the Westside Independent District and the proposed locations of Station 65, relocation of Stations 33 and 68 and the elimination of Station 31.

Figure 16: Westside Station Locations



Northeast/Southeast Districts

There are two smaller independent districts that could be established include Northeast District and a Southeast District. The cost will increase substantially through the necessity of having two administrative centers where one sufficed in the Eastside District discussion.

In the Eastside District there were 43 administrative personnel. A separate Northeast and Southeast District requires 58 administrative personnel. The total number of employees required for the two smaller districts is 457, while the Eastside District employed 454. (Note: The nine firefighters previously shown with Daytona Beach Shores' Station 77 are not included in the 457 calculation.) Additional staff increases each sub-district's budget by $472,500.

Creating separate smaller districts reduces the total number of shift personnel by nine.

Daytona Beach Shores was included as one of the departments in the single district and east side district organizations. These districts were designed as a single system where Daytona Beach Shores could benefit substantially by reorganizing their Public Safety Department back into a Police Department with the fire department merging with the larger organization. With the smaller organizations and Daytona Beach Shores' limited fires, it may be in their best interest to remain a Public Safety Department. We recommended, however, that the contract with Volusia County to provide fire services to Wilbur by the Sea and other unincorporated areas be cancelled if the following two districts are established.

In exchange for closest unit response, the Northeast District and/or the Southeast District would provide automatic aid on all structure fires and those incidents requiring more apparatus/personnel than the Shores can muster.

For budgetary purposes, VCFS budget share utilized in the Eastside District has been reallocated with 60% attributed to the Northeast District and 40% to the Southeast District.

Northeast Independent District

The Northeast District consists of Daytona Beach, Holly Hill, Ormond Beach and the unincorporated areas of Volusia County's Battalion 10, except for Station 12, Spruce Creek. The assessed taxable property value for the Northeast District is $10,090,335,165.

Combined, the municipalities and $7,702,178 of VCFS budgets total $27,433,933. Not included in this budget figure is the increase cost associated with an independent district that was not required in the dependent district. That cost alone is estimated at

$500,000 plus an additional $472,500 for additional administrative staff leaving a $28,406,433 to be funded by a 2.96338 tax millage rate.

Figure 17 shows the Northeast District's administrative structure.

Figure 17: Northeast District Organization

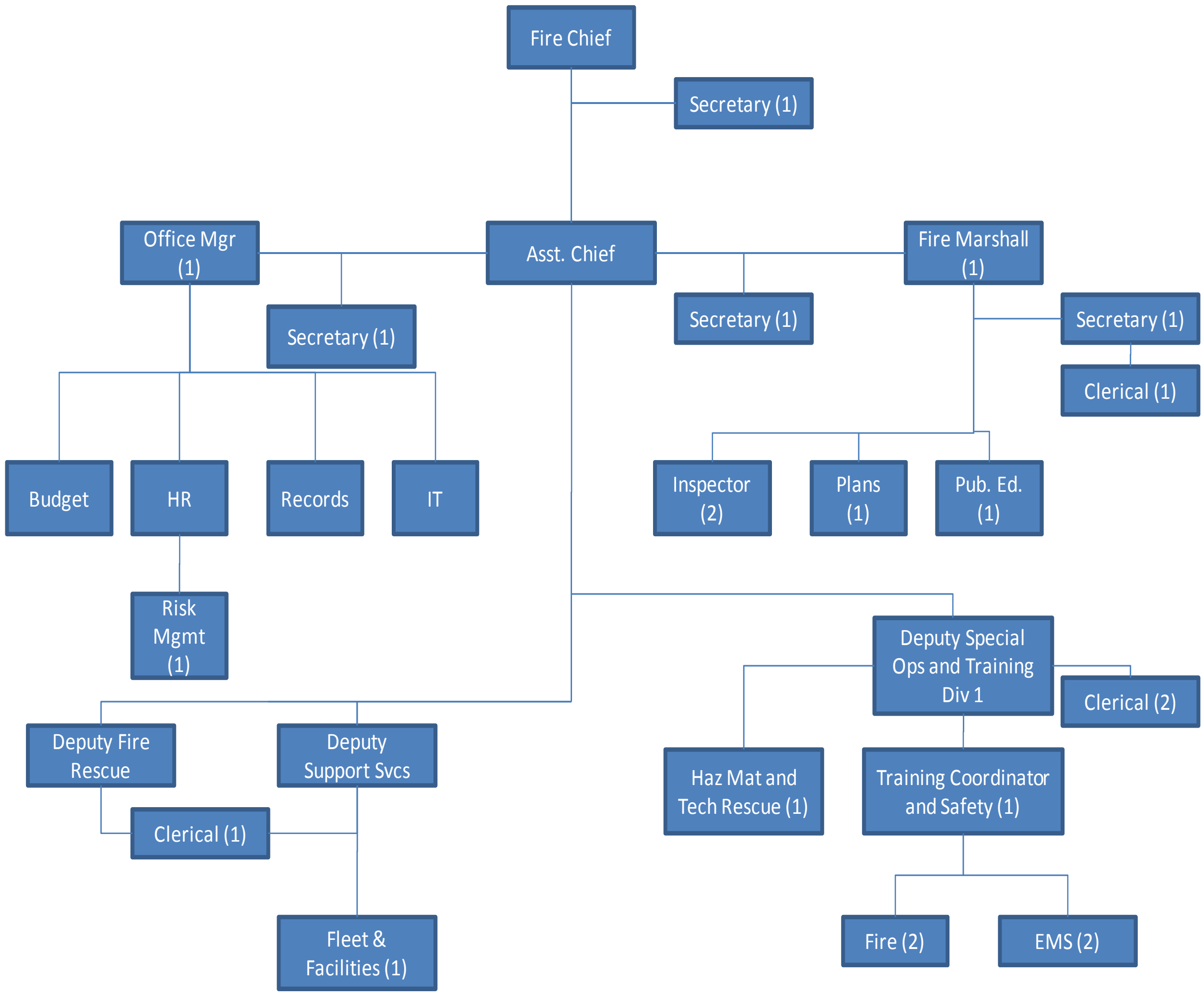


Figure 18 depicts apparatus staffing and the stations assigned to each battalion. At full staffing there are 69 firefighters and three battalions. This is the same personnel unit staffing depicted in the Eastside District. Minimum staffing reduces the number of personnel assigned to the apparatus by 10.

Figure 18: Northeast District Staffing

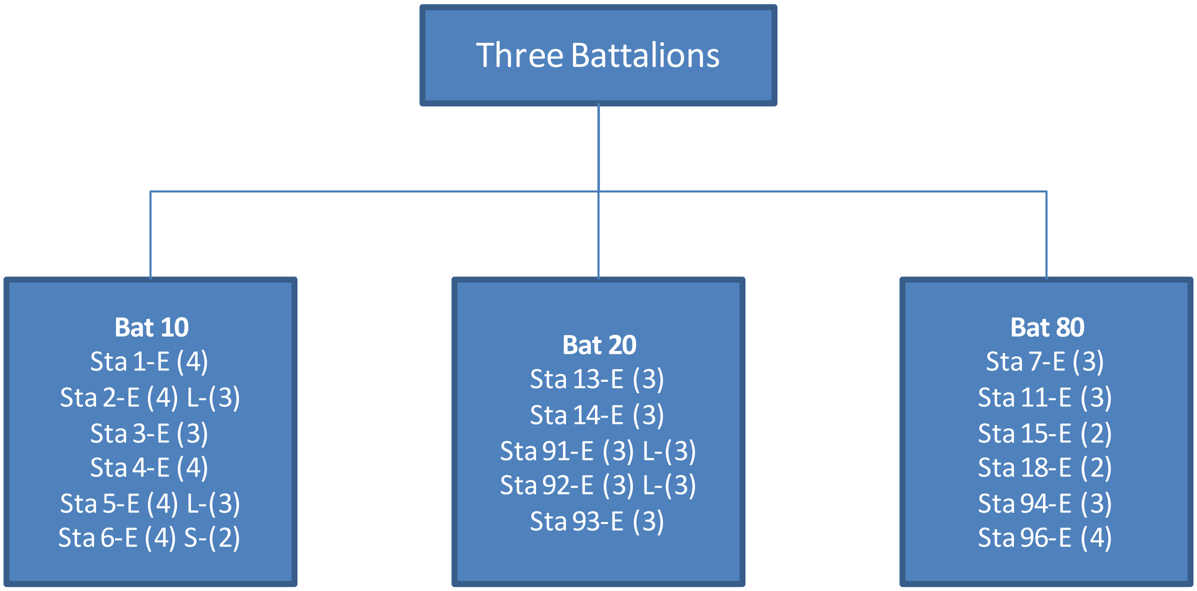
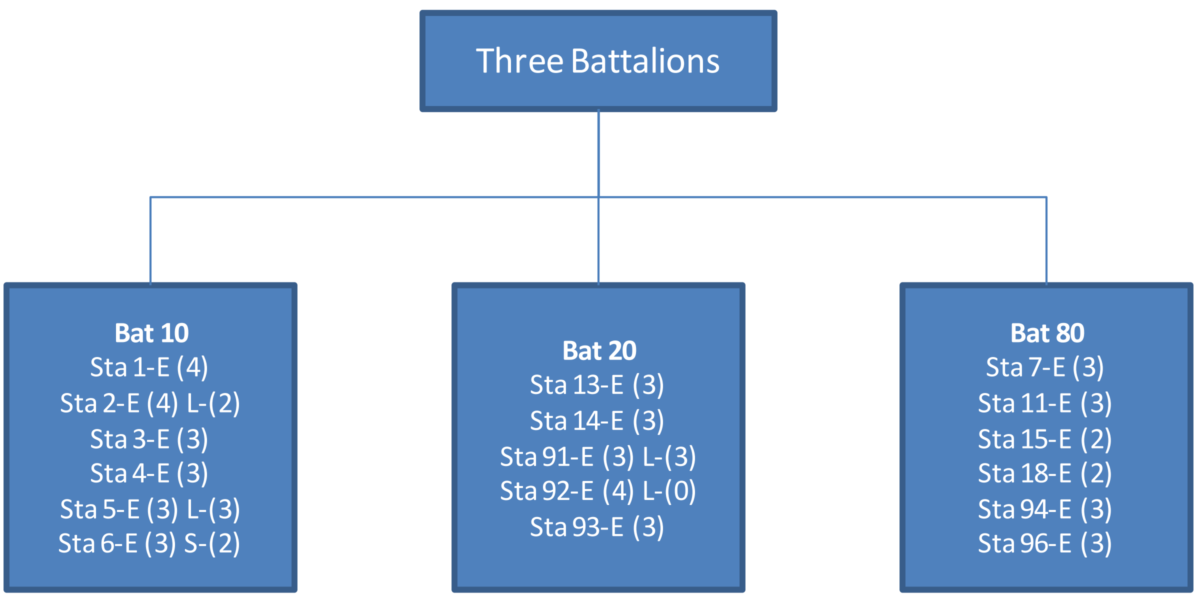


Figure 19 shows unit staffing totaling 62 personnel, plus 3 battalions after attrition, resulting in a savings of $1,470,000. Minimum staffing would drop to 54 personnel plus the battalions per shift. No savings are anticipated through any reductions in the administrative section of the organization. After attrition 2.81002 mils would be required to fund the budget.

Figure 19: Northeast Staffing After Attrition

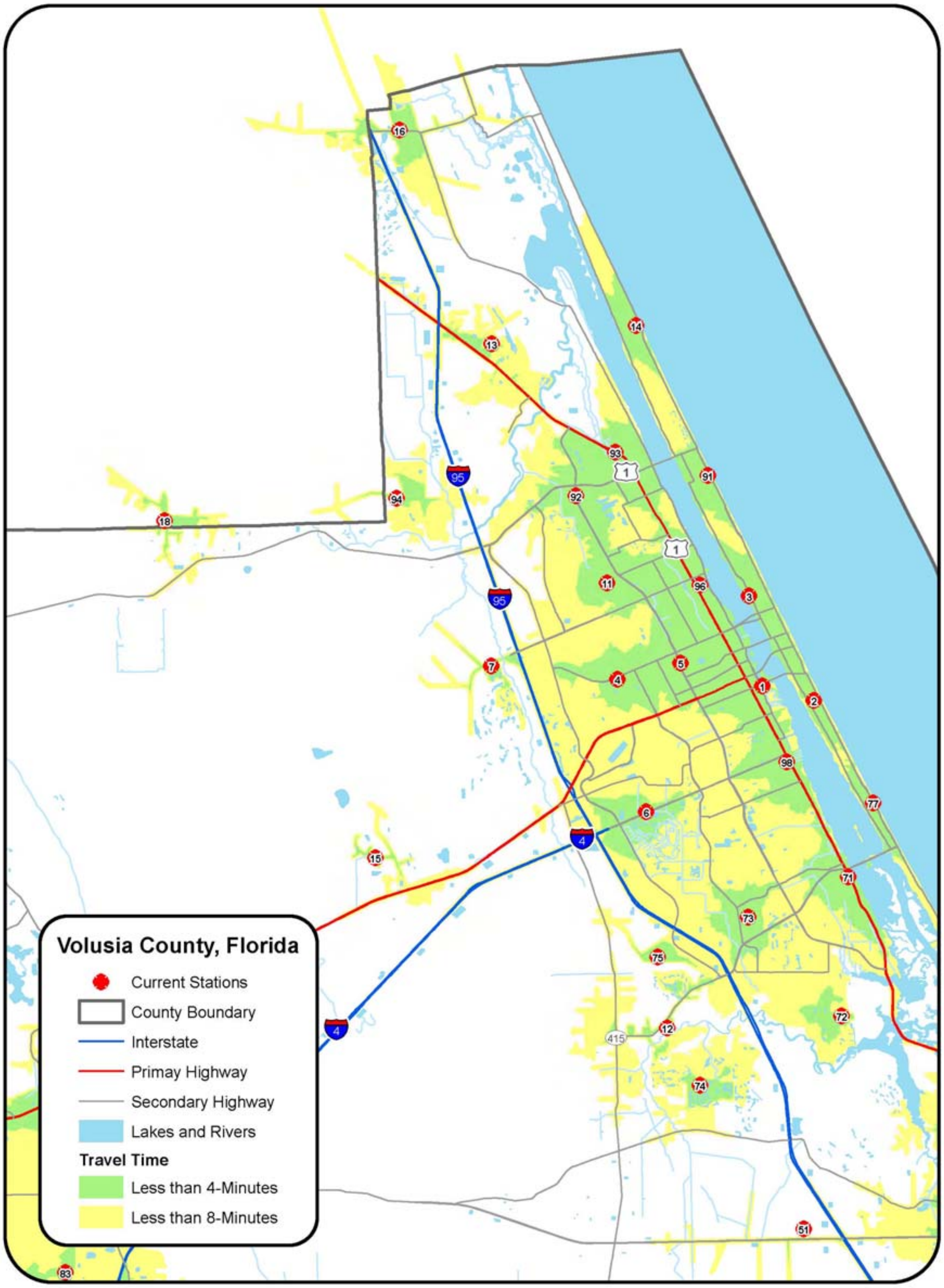


All departments in the Northeast District are currently dispatched by VCSO.

Recommendation 22: The Northeast Independent District should contract with VCSO for fire rescue dispatching services.

Figure 20 shows the location and the four and eight minute drive times for each station in the Northeast Independent District.

Figure 20: Northeast Independent District



Southeast Independent District

The Southeast District includes the cities of Edgewater, New Smyrna Beach, Ponce Inlet, Port Orange, South Daytona and the areas served by VCFS Battalion 20 and Station 12, Spruce Creek. The taxable assessed property value for the district is $10,122,596,136.

The combined budget for the municipalities and $5,134,785 of VCFS' budget is $22,849,745. Not included in this budget figure is the increased cost associated with an independent district that was not required in the dependent district. That cost, estimated at $500,000 plus $472,500 for additional administrative staff, leaving a $23,822,245 budget to be funded by a 2.47723 tax millage rate. The following organizational chart shows the Southeast District's administrative structure which is identical to the Northeast District's.

Figure 21: Southeast District Organization

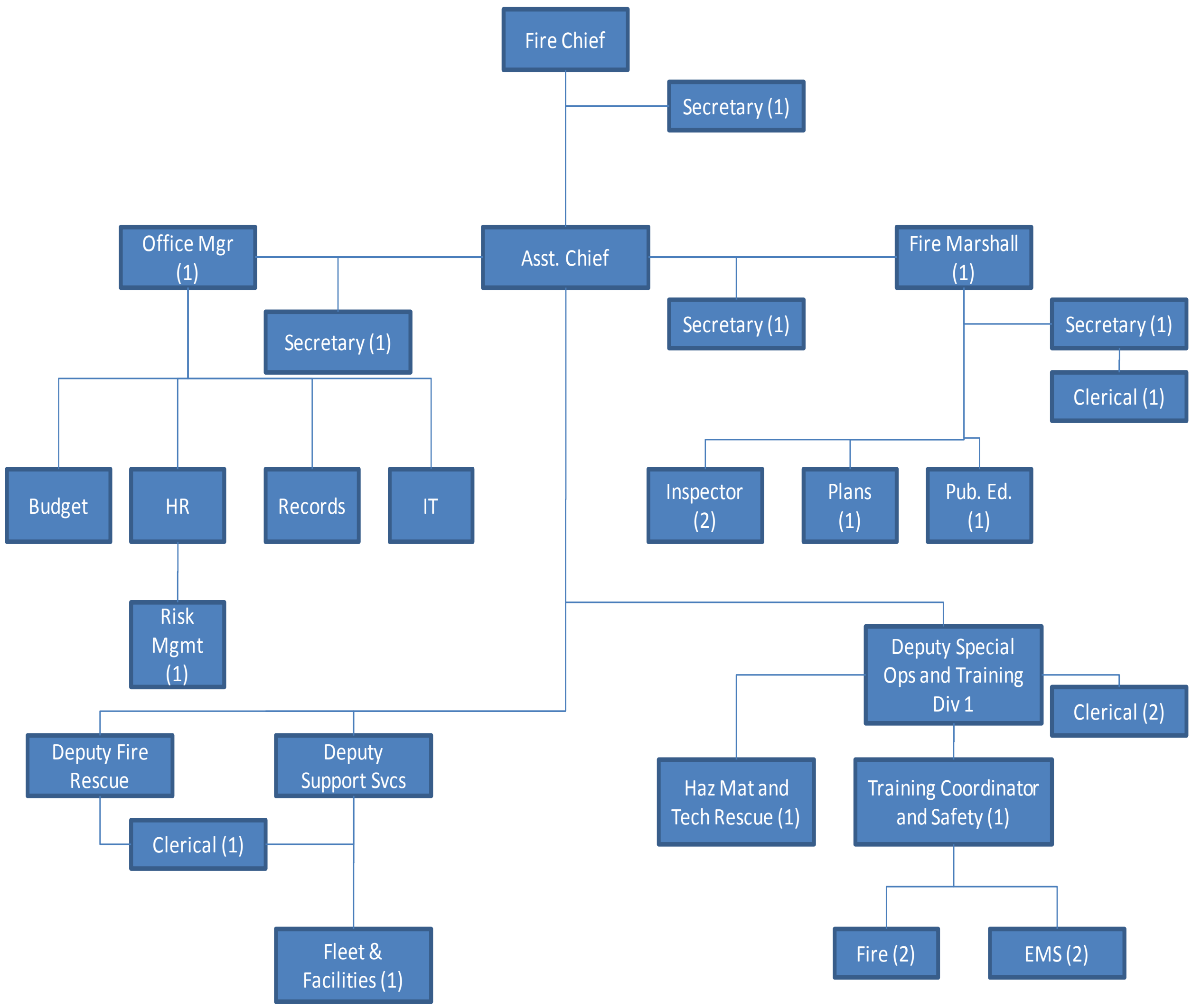


Figure 22 depicts unit staffing for the apparatus in the two battalions. Full staffing is 59 personnel on the apparatus plus two battalion chiefs. Minimum staffing is 52 assigned to the apparatus.

Figure 22: Southeast District Staffing

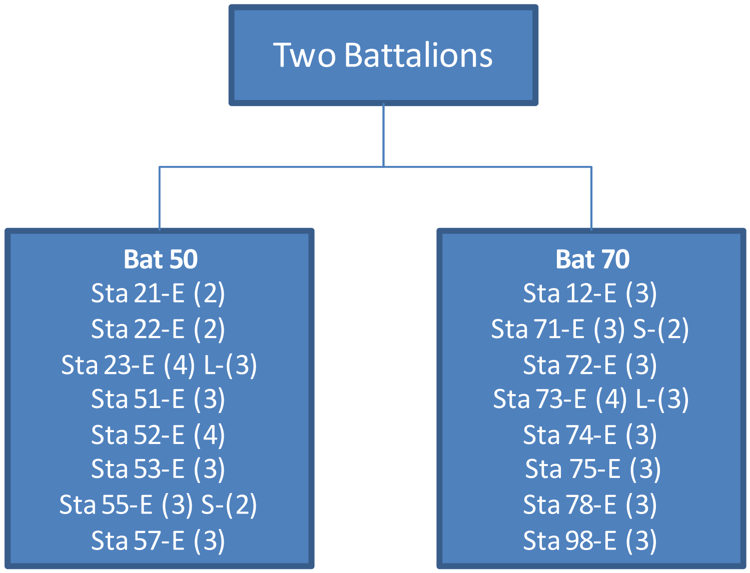
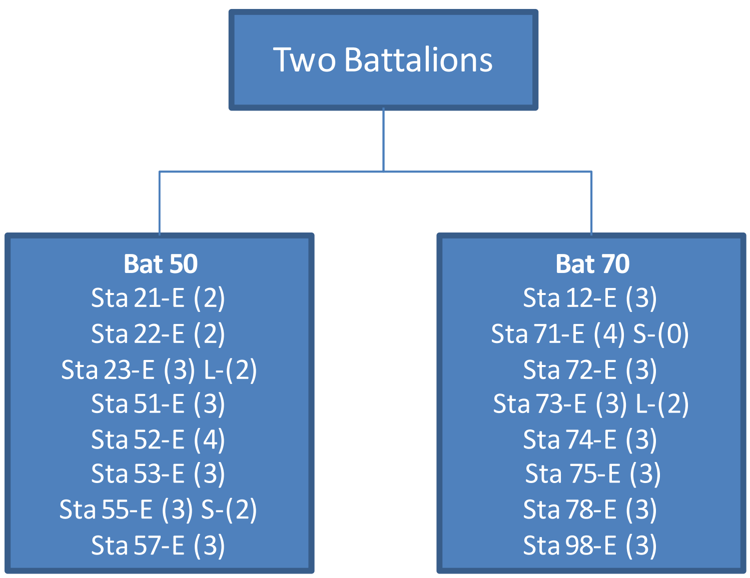


Figure 23 reduces full staffing to 54 resulting in a savings of $1,050,000. No additional savings are anticipated through any reductions in administrative staff. The tax millage rate required to fund the revised budget is 2.36804.

Figure 23: Southeast Staffing After Attrition

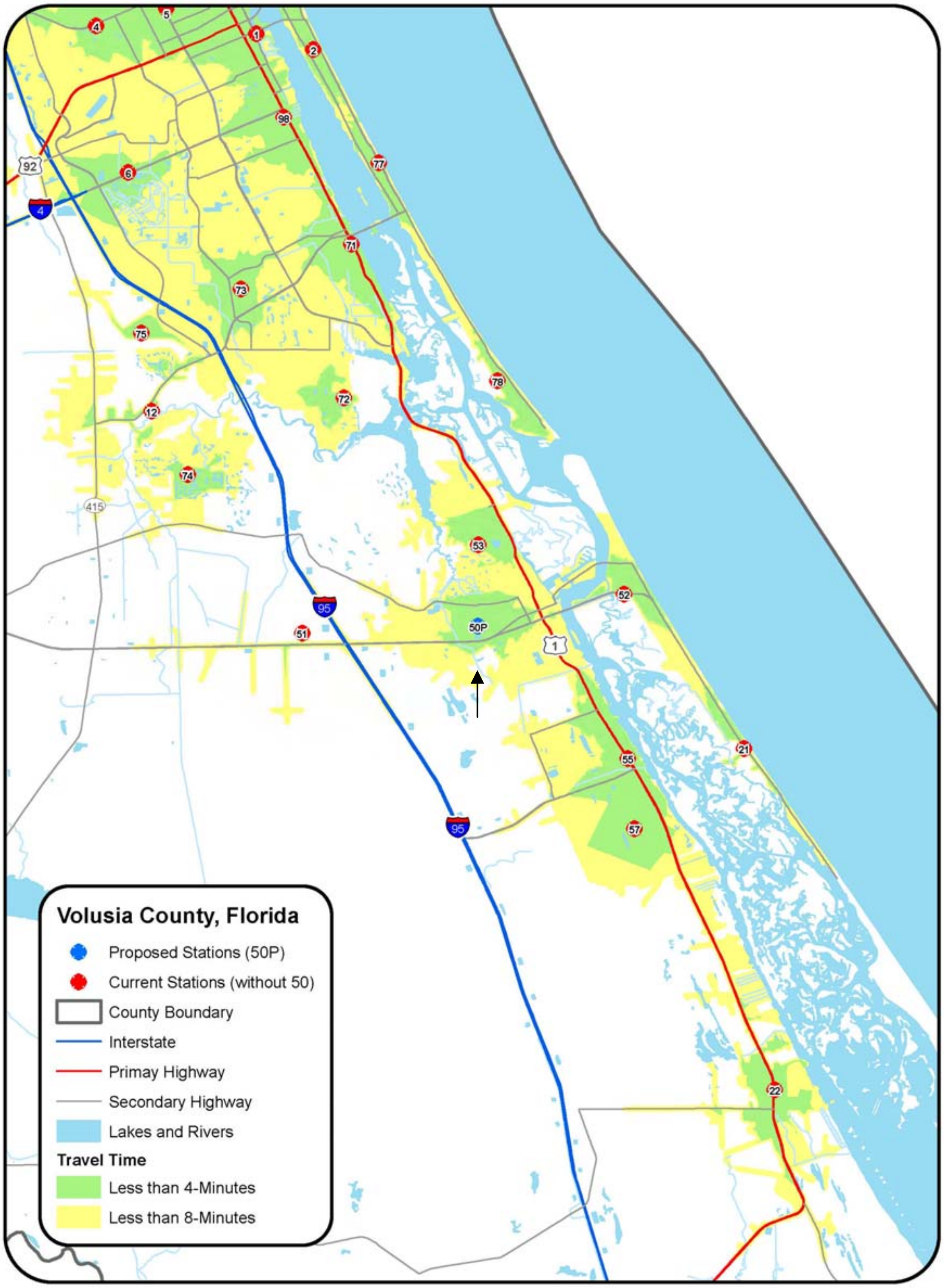


With the exception of the County stations in the Southeast District, all departments are dispatched by RCC.

Recommendation 23: The Southeast Independent District should contract with RCC for fire rescue dispatching services.

Figure 24 below shows the location and the four and eight minute drive times for each station in the Southeast Independent District.

Figure 24: Map for Southeast Independent District



VII. LEGAL ISSUES

Addendum 1 contains a copy of correspondence to Howard Tipton from Jonathan D. Kaney, Jr. with the Cobb Cole law firm in Daytona Beach discussing how the cities and county could merge their fire and rescue services. The choices Mr. Kaney presented give the local governments several options and the methods needed to become a unified fire district. It is understood and assumed that whichever option was exercised that each entity would transfer the appropriate and agreed upon assets and liabilities to the unified fire rescue department.

If a municipality's Charter requires the city maintain its own fire department then the governing body will have to follow legal procedure to abolish the requirement before entering into any merger agreement. It is possible that the Charter may require voter approval. A Charter change requiring voter approval to disband the city's fire department in favor of a consolidated system could face strong opposition from labor organizations. The challenges will depend on the type of district that is opted for.

Most of Volusia's labor organizations have previously expressed support of a single independent fire-rescue system, particularly if ambulance transport is part of the new organization. Some discussions have occurred with city unions strongly objecting to merging with Volusia County as a dependent district

Pensions is an area where the expertise of a certified actuarial accountant would be required to assist in determining what pension liabilities would remain with the municipalities with F.S. Chapter 175 plans. Each municipality with the F.S. 175 plan will have to determine who remains with the F.S. 175 plan and who transfers to the Florida State Retirement System (FRS). Resistance will be higher among those employees whose F.S. 175 benefits exceed the FRS benefits.

Addendum 2 is a copy of a sample bill that (proposed by State Representative Pat Patterson) made its way through Volusia County this past year that creates the independent special district to be known as the Volusia County Emergency Services District. This bill establishes a five member elected board of commissioners. If the decision is to merge as an independent district we recommend the governing board be appointed as permitted by F.S. 125 as outlined in Mr. Kaney's memorandum.

VIII. CONCLUSION

The actual number of fire incidents in Volusia County is rather small. Only 2.6% of the 80,000 plus incidents generated were for fires and less than 1% for structure fires. The majority of the fire rescue departments responses are EMS responses. Volusia County's EMS system is a two tier system where ambulance transport is provided by a not-for-profit corporation while fire departments provide primarily ALS first response.

There are 59 fire stations in Volusia County. The study recommends closing two stations where the County and cities response areas overlap. The study also recommends relocating two stations to better serve the Orange City and DeBary communities.

One stipulation of the study was no person currently employed would be eliminated until retirement.. The study complies with that directive and identifies a leaner organization that could eventually save $5.7 million a year through attrition. There are numerous recommendations that can be applied to the current system and individual organizations regardless of any mergers.

Six merging options were presented for consideration with their estimated costs. They are:

- **Single Dependent District**: This organization is the simplest to create and provides for the greatest savings.
- **Single Independent District**: This organization removes the cities objections to County control. Savings are good but approximately $1 million less than the Dependent District.
- **Eastside Independent District and Westside Independent District**: These two organizations divide the County in half between the east side and the west side. Each half may work better separate due to differences in their regional concerns.
- **Northeast District and Southeast District**: As with the east and west side of the County, there are different philosophies and concerns. This organizational structure provides an opportunity for the communities involved to enhance the overall delivery of services while achieving savings.

None of these merger options can succeed without Volusia County's cooperation.

For the Eastside Independent District to succeed as identified requires the success and implementation of the Westside Independent District. The funds to create these two districts proportionally divide VCFS current budget. If the West says no or vice versa the County would have to maintain its fire service organization at a cost that may exceed the allocation included in the Westside District's budget. If that occurs, the tax millage rate identified for the Eastside District would have to increase or the number of positions reduced.

For years local governments, citizens and business leaders have recognize the inefficient duplication of fire and rescue services in Volusia County

The opportunity exists to merge Volusia's 13 fire rescue departments into one highly efficient, cost effective organization providing optimal services.

The study's primary recommendation is to unify all fire rescue departments into a single dependent district.

List of Recommendations
1. Affected cities with F.S. Chapter 175 pension plans should develop a plan to lower their unfunded liability.
2. On a fire alarm sounding, change dispatch protocols to send one engine, non-emergency.
3. On a motor vehicle crash (without reported entrapment), change dispatch protocols to send the appropriate closest unit.
4. If no mergers occur, the larger departments must evaluate the impact of automatic/mutual aid services provided to smaller departments for which they receive no remuneration
5. The County fire chiefs should agree to accept and implement a nationally-recognized Medical Priority Dispatch system.
6. Departments should determine how to use the combination of static and dynamic staffing and deployment to justify need for and cost of resources.
7. Cities should reevaluate their need to provide ALS-level first response. If response data indicates little benefit from providing first responder ALS, then cities should be allowed to reduce to BLS first response.
8. Assign multiple units on an incident to the same tact channel.
9. Create a protocol where fire departments whose first responder vehicles have transport capability could transport patients under specific situations. This action may necessitate the issuance of a limited COPCN.
10. The County should merge all 911 resources under the VCOS.
11. Upon merging, close Volusia County Station 31.
12. Upon merging, leave Orange City Station 68 as a temporary station.
13. Regardless of any mergers, begin constructing Deltona Station 65 in July 2010.
14. After merging, develop plans within three to five years to relocate Orange City Station 68 to the area of Saxon Blvd and Volusia Ave, Orange City.
15. After merging, develop plans coinciding with Station 68 to relocate DeBary Station 33 to the vicinity of Dirkson Blvd and US 17-92.
16. Upon merging, close Volusia County Station 23.
17. After merging, develop plans to remodel Station 23 within two to three years and relocate Station 50 to this location.
18. Merge all departments with Volusia County as a dependent fire district.
19. An Independent District should contract with VCSO for fire and rescue dispatching services.

List of Recommendations
20. The Eastside Independent District should contract with VCSO for fire rescue dispatching services.
21. The Westside Independent District should contract with VCSO for fire rescue dispatching services.
22. The Northeast Independent District should contract with VCSO for fire rescue dispatching services.
23. The Southeast Independent District should contract with RCC for fire rescue dispatching services.

APPENDIX 1

Memorandum

COBB COLE since 1925
Daytona Beach • DeLand

To: Howard Tipton
From: Jonathan D. Kaney Jr.
Date: November 16, 2009
CC: Bud Fleuchaus
Subject: Civic League Fire Study

As we discussed at lunch last week, these are comments on the possible legal vehicles through which cities and the county might merge their fire and emergency services through interlocal agreement. These comments refer to the case wherein the city and county governing boards have agreed to the merger and refer solely to the means to accomplish the agreement.

The authority for merging these functions by interlocal agreement is as follows:

- Fla. Const., art VIII, § 4 provides that "any function or power of a {local government]may be transferred to or contracted to be performed by another [local government] after approval by [dual referenda] or as otherwise provided by law."
- Fla. Stat., § 125.0101 authorizes a county to contract with a city to provide fire protection and other services. This authorizes functional consolidation by interlocal agreement in lieu of dual referenda otherwise required by the constitution.
- Fla. Stat., § 163.01 provides the general authority for local governments to exercise powers and functions jointly under interlocal agreements.

Pursuant to an interlocal agreement, the cities and county could consolidate the fire protection service by transferring the appropriate and agreed fire department assets and liabilities into a new unified fire department ("UFD"). This new UFD could be operated and funded either as a dependent district of the County or as an independent district created by special law or by county ordinance. In principle, either approach could serve the purpose, but there are significant funding and governance differences between them.

Dependent District and Municipal Service Taxing Units

The cities and county could transfer the fire department assets and liabilities to a new dependent district created by county ordinance, which would become the operating UFD.

To fund the operation of the UFD, the county could create a series of Municipal Service Taxing Units ("MSTU") encompassing service areas to include the cities and adjacent unincorporated areas. With consent of each city, the MSTU statute authorizes the county to include incorporated territory within a county MSTU. Fla. Stat., §125.01(q) & (r). Presumably, each participating city would become the core of an MSTU drawn to encompass that city and adjacent service areas. Each MSTU would be authorized to levy ad valorem taxes and non ad valorem special assessments on the property within the unit tor fund the operation of the UFD in that district. The millage levied on property in the MSTU's for all municipal services provided by all taxing units may not exceed the 10 mil cap.

The statute requires that the Council must be governing body of each MSTU, which would obviously be a sticking point in negotiating with the cities. However, the interlocal agreement could create a dependent district or not-for-profit corporation to serve as the operating entity, i.e., the new UFD. This entity could be governed by a board made up of a city and county officials or their appointees. This UFD would contract with the County to provide the fire protection services in return for funding derived by the County from taxes and assessments drawn from the MSTU's.

Such a new UFD would not have power to tax or assess but would be dependent on the County Council for funding and budget control.

In shaping a plan for unified fire protection under this model, there is great flexibility provided that the plan conforms to these constraints:

1. Any ad valorem tax funding is subject to the 10 mil cap applicable within the included municipalities and the unincorporated area.

2. The MSTU's would have authority to levy non ad valorem assessments and service fees.

3. The County Council must be the governing body of each MSTU and control the budget of the UFD.

4. A new city-county UFD serving as the operating entity would be dependent on the county for its funding and budget approval.

Independent Special District

Instead of a district dependent on the county government, the cities and county could avail of an independent special district as the vehicle for consolidation of fire services. This can be accomplished by special act or by ordinance.

As to the ordinance, Fla. Stat., § 125.05 provides that, with approval of the governing bodies of the included cities, the County may by ordinance create an independent district that includes both incorporated and unincorporated areas. Such a "125.05 district" may provide "municipal services and facilities from funds derived from service charges, special assessments, or taxes within such district only." Fla. Stat., § 125.05(1).

The governing body of the 125.05 district may include a combination of city and county governing board members. The statute provides that the district board shall be composed of county commissioners and "may include elected officials of the governing body [of included cities]" Fla. Stat., § 125.05(2). I construe this to require <u>all</u> members of the county board must sit on the district board and to allow <u>some</u> members of the city boards may sit as well. Apportionment of seats on the governing board will be as provided in the ordinance creating the district.

There are no similar restrictions on the makeup of the board of a district created by local law.

If this special district approach were followed, the special district would become the UFD. The interlocal agreement would provide for the cities and county to transfer the assets and liabilities of their fire departments to this district and to transfer the function of fire protection to the district, which would undertake this duty under the interlocal agreement.

The special act or ordinance may authorize the independent district to levy services charges and non ad valorem assessments. In addition, a 125.05 district may levy "any millage designated in the ordinance creating such a special district . . . and approved by vote of the electors." The same applies to a district created by special act.

If the special district (whether created by ordinance or special act) meets the statutory definition of an "independent district," its millage would not be subject to the cap applicable to municipal services provided by cities and counties. Fla. Stat., § 200.001(4). The limit is that it may not levy millage "excess of a millage amount authorized by general law and approved by vote of the electors." Fla. Stat., § 20.001(8)(e). That cap would be set in the ordinance or special act creating the district and approved by the electors.

The new special district will be classified as an independent district if it does <u>not</u> meet any one of the following criteria specified in Fla. Stat., § 189.43(2):

> (a) The membership of its governing body is identical to that of the governing body of a single county or a single municipality.
>
> (b) All members of its governing body are appointed by the governing body of a single county or a single municipality.
>
> (c) During their unexpired terms, members of the special district's governing body are subject to removal at will by the governing body of a single county or a single municipality.

(d) The district has a budget that requires approval through an affirmative vote or can be vetoed by the governing body of a single county or a single municipality.

Accordingly, the district will be independent if its governing body includes city officials chosen other than exclusively by the County Council or any single city, if the members cannot be removed by the County Council or by any single city, and if the budget adopted by the district board is not subject to veto or approval by any city or the county. It should be possible to fashion a governance structure that qualifies the district as independent if that is the desire of the contracting entities.[1]

In crafting an interlocal agreement that will meet the needs of the several cities and the county, the flexibility allowed by the MSTU device seems necessary. My study leaves me with some question whether the 125.05 district could be authorized by ordinance to create taxing units analogous to the MSTU authorized for counties.

Section 125.05 does not expressly authorize the creation of such sub-districts, but neither does it forbid it. My tentative opinion is that the home rule powers of the county should empower it to authorize the 125.05 district to create the equivalent of MSTU's on the same conditions that the general law authorizes counties to do so. Such an ordinance would not be inconsistent with general law and actually would fit comfortably within the rationale on which the courts have approved the use of MSTU's by county governments. *Gallant v. Stephens*, 358 So. 2d 536 (Fla. 1978) (holding MSTU statute constitutional against challenge based in part on uniformity requirement); *Sockol v. Kimmins Recycling Corp.*, 729 So. 2d 998 (Fla. 4th DCA1999) (approving county's levy of special assessment within a sub-district of the county as a matter of home rule apart from the authority of Fla. Stat., § 125.01(r) & (q)). But this is only a tentative opinion that requires further study and discussion if needed in this project.

Special District Created by Special Law

The very same thing that could be achieved by an ordinance creating a 125.05 district could be achieved by a special act creating a statutory special district. Earlier this year, I worked with Mike Mellon and other representatives of the EVAC board to craft a special act that would establish a vehicle through which the cities and county could merge their fire and emergency services through interlocal agreement. This was the draft which Rep. Pat Patterson introduced for consideration by the local delegation and then withdrew.

With approval of Mike Mellon, I am attaching that draft together with the letter which transmitted the draft and commented on various provisions.

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[1] See AGO 89-64 advising that the St. Lucie County-Ft. Pierce Fire District is an independent district and describing the makeup of its governing board, which consists of members appointed by the county commission and by several city commissions plus one appointed by the Governor. An earlier opinion of the Attorney General (AGO 85-09) construing a previous definition of independent district had advised that a district created under Fla. Stat., § 125.05 would not qualify as an independent district. The definition of an independent district has subsequently been changed, and that earlier opinion is not applicable today.

Memorandum Page 5

This draft provided for an elected governing board. After that draft had been completed, we offered the further opinion that the governing board could be chosen otherwise than by election. That opinion is also attached. To be clear, the governing board of an independent district created by special act need not be elected. The St Lucie-Ft. Pierce board offers an example of what may be done in the act.

It is also noteworthy that the specific restrictions on the makeup of the board of a 125.05 district created by ordinance do not apply to a district created by special act.

About Borrowing

The statute authorizing creation of a special district by ordinance does not deal specifically with the power of the district to borrow money or pledge assets or tax revenue. I have not considered this issue in comparing the 125.05 district with the special act alternative.

Comparative Summary

Each of these alternatives has advantages and disadvantages, which I believe can be summarized as follows:

The MSTU is simplest to implement. It does not require referendum approval.

Its chief disadvantage in the context of negotiating an interlocal agreement with the cities is that the County Council must ultimately control the budget and purse strings. The issue of control could be somewhat alleviated by organizing the UFD as a separate body governed by a city-county board, but the ultimate fiscal control in the county remains objectionable to the cities.

A further disadvantage of the MSTU may be the millage cap. The millage levied by the MSTU (i.e., the County Council) is part of the 10 mil cap for the included cities and for the unincorporated areas. This may be a disadvantage if the cities are unwilling to concede that taxing power to the County. Certainly it is a disadvantage as we go through these hard times where the demands for services impinge on the cap.

The MSTU approach offers clearly permits the flexible subdivision of the county into sub-districts tailored around the cities as compared to the uncertainty on this point with the 125.05 district.. However, I believe the uncertainty can be resolved, perhaps by an Attorney General advisory.

The special district whether created by ordinance under Section 125.05 or by special law offers comparative advantages.

Its governing board may include representatives of city commissions as well as Council members and will operate independently of the cities and county. This eliminates the cities' potential objection to county control.

APPENDIX 2

Florida House of Representatives -- 2009 HB ________

By Representatives ________________

A bill to be entitled

An Act relating to Volusia County; creating and establishing an independent special district in said county to be known as the Volusia County Emergency Services District; creating a charter; describing the status, district boundaries and purposes; providing for a governing body; providing for elections, terms of office and filling vacancies in office and limits thereon; providing for officers, board compensation and bond; prescribing the administrative duties and financial disclosure, noticing and reporting requirements of the board; prescribing the powers of the board; authorizing the board to establish and maintain emergency medical, rescue and transport services and equipment; authorizing the board to make interlocal agreements with other public agencies; authorizing the board to make policies, rules, regulations and a fire code; providing for assessing and collecting taxes, assessments, user charges and impact fees; providing exemption from taxation; prohibiting the board from levying taxes on municipal property for services rendered exclusively to unincorporated areas of the district; authorizing the board to create, merge, and abolish special emergency service taxing units or sub-districts within the district; authorizing the district to levy ad valorem taxes for emergency services within a municipality when approved by the governing body of the municipality; providing for severability; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. The Volusia County Emergency Services District is hereby created and the charter for the district is created to read:

Section 1. Creation; status; boundaries.--There is hereby made, created and established the Volusia County Emergency Services District, an independent special district under chapter 191, Florida Statutes, which shall include the following lands:

All of Volusia County, Florida, as described in Florida Statutes (2008), section 7.64, and more particularly described as follows:

Beginning at a point where the southerly boundary of the Domingo Acosta Grant, also known as section thirty-eight, township thirteen south, range twenty-seven east (said Acosta Grant lying and being in Putnam County) intersects the easterly shore of Lake George, said point being south sixty-five degrees west a distance of thirty-two chains from the southeasterly corner of said Acosta Grant, according to United States Government survey of township thirteen south, range twenty-seven east; run thence north seventy-five degrees fifteen minutes east to a point in the shore of Crescent Lake (see map of boundary line dividing Putnam and Volusia Counties recorded in map book 5, page 87, Volusia County, Florida); thence along the southeasterly shore

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of said Crescent Lake to the north bank of Haw Creek; thence easterly along the north bank of said Haw Creek to the range line between range twenty-eight east and range twenty-nine east; thence south along said range line to the southwest corner of section nineteen, township fourteen south, range twenty-nine east; thence east along the south boundary of said section nineteen and other sections to the southeast corner of section twenty-two, township fourteen south, range thirty-one east; thence north on the east boundary of said section twenty-two and other sections to the township line between township twelve south and township thirteen south; thence east on said township line to the point where said township line is intersected by Old King's Road; thence northerly along said Old King's Road to its point of intersection with the line dividing the Bulow and Ormond Grants; thence northeasterly along said line between Bulow and Ormond Grants to the easterly shore of Bulow Creek; thence following a continuance of said line between Bulow and Ormond Grants, which line now becomes the line dividing lots 7 and 8 as shown on map of partition of the Bulow Tract (Filed in office--September 20, 1867, L. M. Richardson, clerk, Volusia County) according to map recorded in St. Augustine, to the intersection with Haulover or Smith Creek; thence northerly, along said Haulover or Smith Creek, to the intersection with the section line running between sections twenty-nine and thirty and thirty-one and thirty-two, township twelve south, range thirty-two east; thence east along said township line to the Atlantic Ocean; thence southerly along line of the Atlantic Ocean, including the waters of the Atlantic Ocean within the jurisdiction of the State of Florida to the township line between township nineteen south and township twenty south; thence west on said township line to the range line between range thirty-three east and range thirty-four east; thence south on said range line to the township line between township twenty-one south and township twenty-two south; thence west on said township line to the thread of the St. Johns River; thence north along the thread of said St. Johns River, what is known as "Old River," and running on the south and west sides of what is known on the maps of public surveys as "Huntoon's Island" and on the south and west shores of Lake George to the mouth of Sulphur Springs (now Salt Springs run); thence northeasterly, in a direct line, across Lake George to the place of beginning.

Section 2. Purposes and Intent.

(1) As used in this act, "Emergency Services" means: basic and advanced life support as defined in s. 401.23; rescue response service as defined in s. 191.003(6); prehospital or interfacility advanced life support and basic life support transport services as defined in s. 401.25; fire protection services as authorized by chapter 191; and telecommunications services.

(2) The purposes of the district are to promote economy and efficiency in the delivery of Emergency Services in Volusia County; to provide for greater uniformity, communication, coordination, and interlocal cooperation among local governments in Volusia County in the provision of Emergency Services; to provide for; the establishment and maintenance of emergency medical, rescue response and transport services; the acquisition and maintenance of emergency medical, rescue response, transport and other emergency equipment and facilities; and the employment and training of necessary emergency personnel; to provide for fire protection services,

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facilities, and firefighting equipment; the establishment and maintenance of fire stations and fire substations; the acquisition and maintenance of all firefighting and protection equipment necessary for the prevention of fires or fighting of fires; and the employment and training of such personnel as may be necessary to accomplish fire prevention and firefighting. This act benefits the public health, safety and welfare.

Section 3. Governing body; elections; vacancies in office; officers; board compensation; bond.--

(1) Pursuant to chapter 191, Florida Statutes, the business and affairs of the district shall be governed and administered by a board of five commissioners who shall be elected in nonpartisan elections as hereinafter set forth. The commissioners shall serve for 4-year terms, except as provided herein. No person shall be elected to a four (4) year term as commissioner more than twice.

(2) The office of each commissioner is designated as a seat on the board, distinguished from each of the other seats by a numeral: 1, 2, 3, 4 and 5. The district shall be divided into five separate geographic areas with each area represented by seat on the district board. The boundaries of the five commissioner seats shall be the same as the like numbered Volusia County Council districts. The commissioner district boundaries may be changed by the district board based upon geographic and population criteria. In addition to requirements of candidates for election under general law, in order to qualify for such election or maintaining such a position, a candidate or elected commissioner shall reside within his or her respective district and be a qualified elector. Except as provided herein, the procedures for conducting district elections or referenda shall be as provided in s. 191.005, Florida Statutes, and as otherwise provided by general law.

(3) The three elected commissioners for seats 1, 3 and 5 in the initial election under this act shall serve terms of 2 years each. Subsequent elections under this act shall coincide with the general elections of this State.

(4) Each commissioner shall assume office ten (10) days following the commissioner's election. Each commissioner shall hold office until his or her successor is elected and takes office. No commissioner shall be a paid employee of the district while holding said position. This shall not prevent volunteers receiving reimbursement for expenses from serving as commissioners. Three members shall constitute a quorum.

(5) Vacancies in office shall be filled by special election, said election to be held coincidental with the next countywide general or special election. The board may appoint a qualified elector of the district to act as commissioner until the vacancy is filled by election. A commissioner must be a qualified elector residing within the district. A commissioner may be removed from office for any reason that a state or county officer may be removed.

(6) Annually, within sixty (60) days after election of new members of said board, the members shall organize by electing from their number a chair, vice chair, secretary, and treasurer. However, the same member may be both secretary and treasurer, in accordance with chapter 191, Florida Statutes, as amended from time to time.

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(7) The commissioners may receive reimbursement for actual expenses incurred while performing the duties of their offices in accordance with general law governing per diem for public officials. Commissioners may receive compensation for their services in accordance with chapter 191, Florida Statutes, as amended from time to time.

(8) Each commissioner shall, upon assuming office, take and subscribe to the oath of office prescribed by s. 5(b), Art. II of the State Constitution and s. 876.05. Each commissioner, within 30 days of assuming office, must give the Governor a good and sufficient surety bond in the sum of $5,000, the cost thereof being borne by the district, conditioned on the member's faithful performance of his or her duties of office.

Section 4. District Board, administrative duties.--The administrative duties of the governing board are as provided in section 191.005, Florida Statutes, as amended from time to time.

Section 5. Financial disclosure, noticing and reporting requirements.--The district and the board shall have those financial disclosure, noticing and reporting requirements as provided by general law and made applicable to said board members and independent fire control districts within the State.

Section 6. District powers, functions and duties.-- The district may provide Emergency Services in the district or any unit thereof. In order to achieve the purposes set forth in Section 2 above, the district shall have and the board may exercise those general and special powers prescribed by chapter 191, Florida Statutes, as amended from time to time. The district may exercise such powers separately or jointly with any other public agency of the state pursuant to chapter 163, Florida Statutes, as amended from time to time.

Section 7. Policies, rules and regulations and fire code.--The board is authorized to make and adopt policies, rules, regulations and a fire code for the prevention of fires, for fire control, and for the provision of rescue services within the district. Such policies, rules, regulations, and fire code shall be adopted in accordance with applicable general and special law, as amended from time to time.

Section 8. Financing of the district.--The methods for financing the district shall be as provided in chapter 191, Florida Statutes, and as provided by other general law applicable to independent special districts.

Section 9. Ad valorem taxes, non-ad valorem assessments, user charges and impact fees.--The district board may fix and cause to be levied on all property of the district, or unit thereof, a millage sufficient to meet the requirements of the adopted budget, not to exceed 3.75 mils, pursuant to the provisions of Section 191.009(1), Florida Statutes, provided, however, that property situated within a municipality shall not be subject to taxation for services rendered by the district exclusively for the benefit of property or residents in unincorporated areas of the district. The district may establish, and subsequently merge or abolish those created hereunder, emergency service taxing or benefit units for any part or all of the district within which may be provided Emergency Services from funds derived from service charges, special assessments, or taxes within such unit only. Subject to the consent by ordinance of the governing body of the affected municipality given either annually

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or for a term of years, the boundaries of an emergency services taxing or benefit unit may include all or part of the boundaries of a municipality. In addition, the district shall have such authority to levy non-ad valorem assessments and charge impact fees and user charges as prescribed in chapter 191, Florida Statutes, as amended from time to time. Ad valorem taxes, non-ad valorem assessments, user charges and impact fees shall be assessed and collected in the manner prescribed by applicable general or special law.

Section 10. Bonds.--The district may issue bonds and notes pursuant to Section 191.012, Florida Statutes.

Section 11. Exemption from Taxation.--The assets and properties of the district are exempt from all taxes imposed by the State or any political subdivision, agency, or instrumentality of the State, pursuant to section 191.007, Florida Statutes.

Section 12. Amending the charter.--The district charter may be amended only by special act of the Legislature.

Section 13. District planning.--The district's planning requirements shall be as set forth in this act and chapters 189 and 191, Florida Statues, as amended from time to time.

Section 14. Immunity from tort liability.--

(1) The district and its officers, agents, and employees shall have the same immunity from tort liability as other agencies and subdivisions of the state. The provisions of chapter 768, Florida Statutes, as from time to time amended, shall apply to all claims asserted against the district.

(2) The district commissioners and all officers, agents, and employees of the district shall have the same immunity and exemption from personal liability as is provided by general law of the state for state, county, and municipal officers.

Section 15. Dissolution.--The district shall exist until dissolved in the same manner as it was created.

Section 2. Construction.--This act shall be construed as remedial and shall be liberally construed to promote the purpose for which it is intended.

Section 3. Severability.--If any clause, section or provision of this act is declared to be unconstitutional or invalid for any cause or reason, the same shall be eliminated from this act, and the remaining portion of this act shall be in force and effect .

Section 4. Effective date.--This act and the charter for the Volusia County Emergency Services District shall take effect upon becoming a law.

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Jonathan D. Kaney Jr.

Memorandum to Howard Tipton dated November 16, 2009
Re: Civic League Fire Study

<u>Errata Sheet</u>

Each reference to Fla. Stat., § 125.05 should be Fla. Stat. § 125.01(5), passim.

Jon Kaney

____
Jonathan D. Kaney Jr.