

# Report on the Contract Compliance Study

---

COOPER CITY, FLORIDA

# Table of Contents

<b>1.</b>	<b>Introduction and Executive Summary</b>	<b>1</b>
<b>2.</b>	<b>Analysis of the Police Services Contract</b>	<b>5</b>
<b>3.</b>	<b>Staffing Analysis of Police Services</b>	<b>15</b>
<b>4.</b>	<b>Analysis of the Fire Services Contract</b>	<b>35</b>
<b>5.</b>	<b>Staffing Analysis of Fire Services</b>	<b>45</b>
	<b>Appendix A: Profile of Police Services</b>	<b>66</b>
	<b>Appendix B: Profile of Fire Services</b>	<b>71</b>

# **1. INTRODUCTION AND SUMMARY**

In late summer 2015 the Matrix Consulting Group began the project to conduct Compliance Audit of Police and Fire services provided to Cooper City through a contract with the Broward County Sheriff's Office (BSO). This document is the final report of the project team's work and includes chapters on the analysis of the management of police and fire services. Also included are Appendices from the study process – Descriptive Profiles of Police and Fire Services.

## **1. BACKGROUND AND SCOPE OF WORK**

Cooper City, like 13 other communities in Broward County contract with the Broward County Sheriff for police and/or fire rescue services. The City has had questions about costs and cost allocation for some time and commissioned this study to evaluate these issues. This study was designed to determine the conformance of service delivery received to costs paid to the Sheriff for police and fire / rescue services. As a result, this study has two objectives:

- The compliance of services received and costs to the contract.
- Analysis of current and projected staff needs for police and fire / rescue services based on workloads and service level expectations.

This report provides the analysis and assessment of contract compliance and contracting needs. The analysis and recommendations in this report are designed to assist Cooper City determine its short and long range public safety needs.

## **2. METHODOLOGY USED FOR THIS PROJECT.**

To understand and evaluate these issues the project team embarked on a thorough assessment of the contract as well as public safety operations in the City. The principal approaches utilized by the project team in this study included the following:

- **Interviews** – members of the project team individually interviewed many Broward County Sheriff's Office staff as part of this study, including staff assigned to provide or manage services in Cooper City as well as central BSO representatives.
- **Stakeholder Interviews** – members of the project team also met with external stakeholders including each member of the City Commission as well as the City Manager and Finance Director
- **Anonymous Community Survey** – the project team developed an anonymous on line survey to elicit views from the community about the police and fire services provided. While only limited responses were provided they were uniformly positive for both police and fire services.
- **Data Collection** – the project team collected a wide variety of external and internal data documenting the structure, operations and organization, including:
  - The contract for police and fire services
  - Deployment and scheduling of staff resources
  - Workloads for all public safety functions
  - Costs for police and fire services

Throughout this process the project team reviewed findings and issues with BSO staff as well as with the City Manager.

### 3. SUMMARY OF RECOMMENDATIONS.

Throughout this report the project team provides evaluation and analysis of the contract and the services provided by the Broward County Sheriff's Office. Where appropriate, this report makes recommendations both for contract changes as well as alternative resource (i.e., staffing) levels. The table below provides a summary list the recommendations and/or opportunities for improvement that appear in this report.

**Recommendations****Police Contract Analysis**

Revise the language in the contract with the BSO to have personnel serve a minimum of two years in Cooper City unless they receive a promotion that requires a transfer out of the district. The City Manager may sign waivers of this restriction as needed.

In the quarterly vacancy reports to Cooper City, the BSO should provide statistics on the number of vacancy days generating credits, by position/classification, as well as the number of days where a vacancy credit was not generated as a result of the position being temporarily filled either through overtime or backfill of BSO personnel.

**Police Staffing Analysis**

As part of a long-range police services planning process, determine what patrol service level objectives are appropriate for the city, and whether current resources are in line with those levels.

Record deputy-initiated incidents in CAD with greater detail, and use this information to develop and present statistics on how proactive time is utilized to the city manager on a monthly basis. The use of the vague and all inclusive term, 'police service call' needs to be abandoned.

Add provisions to the next revision of the contract specifically detailing the reporting of utilization statistics by the BSO for field and investigative functions.

Add language to the next contract that mandates quarterly reporting on overtime usage by each instance, including the position's classification, reason (e.g., whether to staff an event, backfill absent personnel, etc.), and the number of overtime hours the instance represents.

Formally outline a case screening process for investigating crimes that would have otherwise been handled by detectives assigned to Cooper City and divert them to other resources.

After implementing an enhanced case screening process, utilize patrol units and community service aides to conduct follow-up and basic investigative tasks on the cases that are not assigned to detectives.

After implementing enhanced case screening and management, review detective workloads in order to determine investigative resource needs in the future.

**Fire Contract**

Revise the language in the contract with the BSO to have personnel serve a minimum of two years in Cooper City unless they receive a promotion that requires a transfer out of the district. The City Manager may sign waivers of this restriction as needed. This provision would also be subject to approval in collective bargaining.

The City should work with the BSO to develop performance measures for call processing, turnout and travel times specific to the call processing and response time performance of units assigned to the Cooper City fire station and revise the contract language accordingly.

There is no need to amend or add provisions for overtime controls and usage in the next version of the contract, but the City would benefit from requiring reporting as to the cause of any overtime charges if they become responsible for actual overtime expenses in the Cooper City Fire Rescue District.

**Recommendations****Fire Resource Requirements**

The City should develop a station location study to determine if the current station should be relocated after construction of the second station to improve service to the north and southwestern portions of the City.

The District Chief should actively monitor turnout times and work with personnel to improve their performance related to turnout times.

Staff the second station, when constructed with an existing Rescue and existing engine or Quint and maintain current staffing levels.

Continue the current staffing of 1 Fire Inspector to handle the plan review and inspection function in Cooper City.

## 2. ANALYSIS OF THE POLICE SERVICES CONTRACT

### 1. Summary of Law Enforcement Contract Components

The following sections detail different aspects from the portions of the contract relative to law enforcement, beginning with an outline of the service and resource levels it requires, as well as an examination of key contract compliance areas.

#### (1) Overview of Contracted Services

The law enforcement portion of the contract with the Broward County Sheriff's Office provides for 24-hour coverage, seven days a week, and specifically outlines the provision of the following services:

##### *Outline of Contracted Services*

- a) Uniform patrol
- b) Special details management
- c) Strategic intelligence functions
- d) The use of the mounted patrol
- e) Reserves and the sheriff's posse
- f) Career criminal investigation
- g) Technical support
- h) Street crimes enforcement
- i) Regional narcotics investigations
- j) Multi-agency gang task force operations
- k) Victim services
- l) Case filing
- m) DUI enforcement
- n) Marine/dive team
- o) Canine deployment
- p) SWAT team response
- q) Major investigations to include homicide, aggravated felonies, abuse and neglect, sex crimes, missing persons, robbery, economic crimes, traffic homicide, bomb and arson, environmental crimes, auto theft, fugitive apprehension, and crime scene technicians
- r) Hazardous material response services through personnel that are equipped and trained to provide specialized response in case of accidental spill or leak of hazardous materials or product
- s) Technical rescue services through specially equipped and trained personnel, for above grade high angle and below grade rescues

- t) Public education programs
- u) At the request of the City Manager, one uniformed Deputy Sheriff shall be available to attend each regular and special City Commission meeting, as well as any other official City meeting or event, at no additional cost to the city
- v) The District Commander will attend and participate at all city staff meetings, city Commission meetings and Development Review Committee meetings
- w) Upon the request of a homeowners' association, the District Commander or designee will attend the association's membership meeting
- x) Drug enforcement and money laundering.

The contract also lists additional services which it would provide to other municipalities, regardless of whether or not they contract with the BSO for law enforcement services:

*Additional Services*

- a) Full service crime lab
- b) Helicopter patrol and air rescue services
- c) Organized Crime Intelligence gathering activities and drug enforcement
- d) Prisoner and jail services
- e) E-911 (law enforcement, fire, and EMS)
- f) Any other such units or service as BSO may provide normally to other law enforcement agencies during the term of this Agreement.

Because these services would be provided to non-contract cities the value and/or of these services is largely irrelevant in an assessment of the contract itself.

Aside from the specialized services listed above, however, the contract also states that the BSO also assumes all administrative and support functions that contribute to the provision of law enforcement services. It can be assumed that this does present significant benefits, as a wider range of administrative, technical, and other specialized support roles would need to be maintained in-house in the absence of a BSO contract.

## (2) Current Contract Staffing Levels

As of the latest addendum to the contract for services, the Broward County Sheriff's Office is required to allocate the following staffing levels to the Cooper City district complement:

BSO Law Enforcement Staff Assigned to Cooper City		
Category	#	Classification
Sworn	1	Captain
	2	Lieutenants
	8	Sergeants
	5	Detectives
	35	Deputies (Patrol)
	5	Deputies (SRO)
	2	Deputies (Traffic)
Non-Sworn	8	Community Service Aides
	3	Code Inspectors
	1	Crime Analyst
	1	Sr. Technical Analyst
	1	Community Involvement Spec.
	2	Records Clerks
	2	Administrative Support

It should be noted that the staffing levels listed above do not include any of the regional or centralized services, such as major crimes investigation, most information technology functions, and others.

## 2. Analysis of Contract Requirements

The contract with BSO includes a number of important provisions on the assignment of personnel to the district, as well as the limit for annual increases to the total cost of the BSO's services, among other key areas. The following sections provide detail and analysis on these considerations, and identify opportunities to revise or add to sections of the contract in the future.

## (1) Summary of Contract Requirements

The table below summarizes some of the more important aspects of the contract:

### Summary of Key Contract Considerations

Personnel Reassignment	Both the city manager and BSO reserve the right to transfer or reassign an employee out of the Cooper City district with permission of the other.
Staff Retention	<p>The contract does not mandate specific periods of assignment, although no more than 10% of all personnel assigned to the Cooper City district may be transferred without permission of the city manager.</p> <p>In practice, staff have remained assigned to Cooper City for significant periods of time. Many of the current staff assigned to the district were part of the original Cooper City Police Department, including the district chief, Captain Cates.</p>
Cap on Contract Cost Increases	<p>Maximum of 5.0% base increase in cost per year over the previous year (not including vacancy credits). Additional increases may be made for costs associated with health insurance premiums, workers compensation premiums, and pension contributions, up to a maximum of 5.3%.</p>
Fines and Forfeiture	The value of all assets seized within Cooper City is added to the city's Law Enforcement Trust Fund.
Vacancy Credits	The costs of any positions that are not filled for more than twenty-one days due to either sickness, disability, outside assignment, or because the position itself is unfilled (e.g., in the case of termination, retirement, etc.) – and not temporarily filled or staffed through – are paid back to Cooper City, using the fourth pay step value, as well as the value of any associated benefits.

The following sections present additional discussion and analysis on selected areas of this table, examining individual issue areas within the BSO contract.

## (2) Personnel Reassignment

While the contract does not set forth any specific standards for staff retention or assignment, it does give the city manager an ability request that an employee be reassigned outside of the city. However, the provision depends on the sheriff signing off

on the action, and is not guaranteed. This presents the city with almost without significant assurance that personnel will be in their positions long enough to develop familiarity of the city, and knowledge of local problems in the community.

Historically, issues have largely not arisen from out of this issue. In practice, staff have generally remained assigned to Cooper City for significant periods of time. Many of the current staff assigned to the district were part of the original Cooper City Police Department, including the district chief, Captain Cates. Despite these experiences however, future versions of the contract should include language that places at least a minimum level of guarantee that personnel will not be quickly swapped in and out of assignment at the BSO's Cooper City district, without presenting burdensome restrictions on either the sheriff's ability to redeploy personnel within the organization, or for the career development of assigned BSO employees.

***Recommendation:***

***Revise the language in the contract with the BSO to have personnel serve a minimum of two years in Cooper City unless they receive a promotion that requires a transfer out of the district. The City Manager may sign waivers of this restriction as needed.***

**(3) Vacancy Credit Transfers**

The vacancy credit rules and procedures form an important area of consideration, as they were revised significantly from the original version of the contract. The most recently updated version is contained in the second addendum, and states the following:

*Vacancy Credits (2<sup>nd</sup> Contract Addendum, 2008)*

"In the event a BSO deputy or employee within the staffing structure set forth in Article VII is absent from work for a period of time in excess of twenty-one (21) consecutive calendar days, the CITY shall be entitled to a credit for any absence in excess of the twenty-one (21) calendar days. Notwithstanding the preceding provision, RSO has the right to temporarily fill the position with

temporary staff or overtime, in which case the City shall not be entitled to a credit. The CITY's credit shall be calculated using pay step "4" of the affected class plus pension, social security, FICA, and health insurance in the BSO's Pay Plan. Within the twenty-one (21) calendar day period described in this paragraph, BSO will attempt to temporarily fill the vacant position with temporary staff or overtime if the temporary filling of such position is feasible, as determined by BSO, in its sole discretion.

The CITY's credit shall be calculated on a quarterly basis for each fiscal year. For purpose of the last quarter for each fiscal year, vacancies shall be projected for August and September based upon BSO's vacancies during the month of July. In the event the actual vacancy credit for the month of August and September differs from the above projected figures, such difference shall be adjusted in the CITY's November payment."

There are several important considerations that should be made from the text of the contract:

- The period for an absence to become a vacancy is 21 calendar days, rather than scheduled working days.
- Importantly, however, credits will only be issued to the number of days beyond the initial 21 days – for instance, an unfilled absence of 22 consecutive days would translate to a vacancy credit for 1 day.
- If the position is filled through temporary staff or overtime, the city would not receive a credit.

The following table presents the vacancy credit payments made to Cooper City by BSO in the first three quarters of 2015:

**2015 Vacancy Credits, Q1-3**

<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Avg./Qtr.</b>
29,943	71,240	69,372	56,851

Additionally, the contract specifies that, "BSO shall submit a quarterly report detailing vacancy days. This report shall be delivered to the City Manager by the fifteenth day of the month immediately following the end of the quarter." While these reports have been submitted quarterly with credits for vacancies, the information they contain is limited to the amount of the credit – rather than the vacancy days, as the

contract states, that generated the credits. As a result, the city has a limited ability to review the credits. Relevant questions for the city would include:

- How many days generated a vacancy credits, by position?
- How many vacancy days would have otherwise generated credits, but were filled either through overtime or by backfilling the position from elsewhere within the organization (eliminating the need for a credit to be paid to the city)?

By having this information included in the quarterly report, the city would have significantly increased ability to review and ensure the transparency of contract compliance. At a minimum, the quarterly reporting of the number of vacancy *days* is already included within existing contract language, and should be followed.

***Recommendation:***

***In the quarterly vacancy reports to Cooper City, the BSO should provide statistics on the number of vacancy days generating credits, by position/classification, as well as the number of days where a vacancy credit was not generated as a result of the position being temporarily filled either through overtime or backfill of BSO personnel.***

**(4) Overtime Costs**

Whereas vacancy credits form an important component of the contract's language on cost increases, policies and procedures regarding overtime, are essentially absent from the contract. As a result, overtime is absorbed within the total cost of the contract for a given year, falling within the overall 5% per year cap on total cost increases. Likewise, the BSO retains full discretion on how overtime is managed, distributed, and tracked within personnel assigned to the dedicated Cooper City complement. Because overtime represents a significant cost variable for any law enforcement agency, the monitoring and and review over its usage is critical to controlling the costs of providing services.

However, under the current contract, because any expenditures made by BSO associated with overtime are included within the overall cost of the contract for a given year – and are correspondingly bound within the 5% cap, whether the overtime is to backfill a position or as a special deployment/service request – the absence of contract controls on overtime usage does not pose significant issues or risk for Cooper City.

In the case of overtime for the purposes of backfilling, when a position within the district complement is vacated, the BSO is required to compensate Cooper City for the cost of the position unless the vacancy is corrected within twenty-one days. This can be done either through backfilling the position from elsewhere within the organization, staffing the position with a new hire, or by filling the vacancy by overtime (if the position can work overtime). Within the current contract, given that staffing a position through overtime is the most expensive of the of the three, the BSO is thereby incentivized to fill the position in a timely manner in order to minimize overtime costs. If the cost of providing services exceeded the 5% cap on contract increases, the BSO would be responsible for bearing that cost.

However, it is unlikely that future contracts will contain the same guarantee that unexpected or otherwise high overtime costs will be absorbed by the BSO, as such a provision creates significant risk to the agency for uncontrolled costs. Despite the change, the BSO can take steps in future contracts to monitor and provide transparency on the usage of overtime. Language should be included within the next contract that requires quarterly reporting on overtime usage by each instance, including the position's classification, reason (e.g., whether to staff an event, backfill absent personnel, etc.), and the number of overtime hours the instance represents. The reports can be

combined with the expanded vacancy credit reports outlined and recommended earlier in this chapter.

Patrol deployment practices can play an important role in overtime costs. All Cooper City BSO personnel assigned to patrol follow a 12-hour shift schedule that in effect minimizes the risk of additional overtime generation. The schedule includes seven workdays to each individual per biweekly pay period, which, without any additional considerations would create four hours of overtime per staff every two weeks (84 hours). To prevent this issue, deputies are regularly scheduled to work shortened days in a staggered manner, either coming available on-duty later than scheduled, or leaving earlier than regularly scheduled. As a result of this practice, overtime is not built-in to the deployment schedule.

Additionally, by selecting a four-team, 12-hour schedule with no overlapping hours throughout the day, patrol is less prone to issues caused by leave and other absences, in comparison to other types of shift schedules that require a larger number of shift teams. With minimum staffing levels set by time of day, fewer patrol FTEs are required to maintain those requirements than would be needed in a schedule with significant periods of overlap between different shift teams. In general, with the goal of consistently meeting certain minimum staffing levels without generating overtime – without any other factors being considered – a 12-hour, four-team schedule best accomplishes the objective.

***Recommendation:***

***Add language to the next contract that mandates quarterly reporting on overtime usage by each instance, including the position's classification, reason (e.g., whether to staff an event, backfill absent personnel, etc.), and the number of overtime hours the instance represents.***

## (5) Reporting and Contract Management

While allocated staffing levels, as well as the process for transferring back credits for position vacancies, are clearly detailed in the contract, there are few established standards for reporting on service level and performance issues. The contract states the following in regards to law enforcement reporting procedures:

### Additional Services

18.6 In recognition of the CITY'S need to be informed of BSO's activities, BSO's District Commander/Chief, District Fire Chief and the City Manager will develop a mutually agreed upon reporting format(s) and reporting period(s), whereby BSO will report its activities to the City Manager. At any time during the term of this Agreement, the City Manager shall have the right to make reasonable modifications to the reporting format(s), reporting content and reporting period(s).

By contrast to the lack of detail on law enforcement reporting mechanisms, however, the fire portion of the contract calls for specific performance and coverage objectives to be met. This is common, as police effectiveness and response capabilities can be difficult to measure – even the metric of “response time” does not provide as critical of a statistic. In particular, however, the workload of patrol, as well as certain investigative functions, are both reactive and proactive.

Despite these challenges, it is important for contracting cities to be in a position to review statistics on law enforcement service delivery that show how personnel are utilized, rather than limiting the discussion to counts of total activity without qualifications. The next chapter will provide an in-depth analysis of the workload and staffing needs of patrol personnel, including an examination of opportunities to expand reporting mechanisms for service delivery performance and utilization in the areas of police services.

### **3. STAFFING ANALYSIS OF POLICE SERVICES**

#### **1. Analysis of Patrol Workload and Staffing**

The following chapters outline the methodology used to determine current patrol workloads, as well as staffing needs overall staffing needs under various service level targets.

##### **(1) Methodology**

Our project team has calculated the community-generated workload of BSO patrol units assigned to Cooper City by analyzing incidents records contained in the computer aided dispatch (CAD) database, over a period of one year. For incidents to be included in the results of this process, the following conditions needed to be met:

- The incident must have been unique.
- The incident must have occurred within the specified time period, with a call creation time stamp signifying this.
- The incident must have involved at least one patrol deputy assigned to Cooper City.
- The incident must have been originally initiated by the community (911 or non-emergency telephone source), as well as a valid call type corresponding to community-generated activity.
- There must be no major data irregularities/issues with the incident's record that would prevent sufficient analysis.

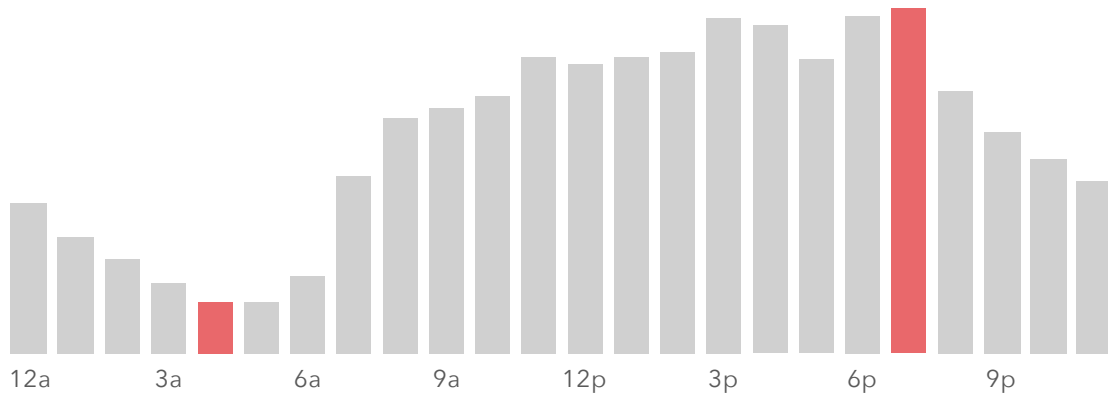
After filtering through the data as listed above, the remaining calls represent the community-generated calls for service handled by the city's law enforcement complement.

**(2) Calls for Service by Hour and Weekday**

Over the past year, deputies assigned to Cooper City responded to 11,681 community-generated calls for service within the boundaries of the city. The following table shows the distribution of these incidents by hour and weekday:

**Calls for Service by Hour and Weekday**

Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
0000	70	23	32	33	44	61	75	338
0100	78	22	19	27	34	42	43	265
0200	62	22	15	24	23	31	35	212
0300	34	14	21	12	17	25	35	158
0400	28	15	16	7	14	21	13	114
0500	27	13	14	12	10	22	18	116
0600	21	24	30	26	27	23	23	174
0700	23	64	79	57	57	69	51	400
0800	41	83	75	85	86	86	72	528
0900	51	86	89	82	80	84	79	551
1000	60	92	95	85	82	76	91	581
1100	59	94	109	90	100	96	116	664
1200	93	82	73	105	117	90	87	647
1300	102	111	81	100	84	99	87	664
1400	77	90	95	118	98	99	102	679
1500	101	110	108	110	136	106	80	751
1600	92	113	122	91	107	117	93	735
1700	69	106	98	91	108	101	87	660
1800	76	116	108	109	115	128	106	758
1900	90	128	117	109	108	126	96	774
2000	62	73	90	84	81	110	87	587
2100	44	60	68	80	60	84	101	497
2200	52	45	75	53	52	77	84	438
2300	44	54	43	50	55	71	73	390
<b>Total</b>	<b>1,456</b>	<b>1,640</b>	<b>1,672</b>	<b>1,640</b>	<b>1,695</b>	<b>1,844</b>	<b>1,734</b>	<b>11,681</b>



- Calls for service volumes largely 'plateau' throughout the day, with insignificant variation in call activity taking place from about about 0800 to 2100 hours.
- Call volume does, however, drop off sharply at night, with very few calls occurring between the hours of 0200 and 0700.

It should be noted that data for any responses made outside of the boundaries of Cooper City was not available.

#### (5) Summary of CFS Workload Factors

Each call for service represents a certain amount of workload, much of which is not captured within just the handling time of the primary unit. The following table presents the various factors which also must be considered, some of which – as a result of limitations in the measurability of certain workloads – are normative values that have been developed based on the experience of the project team:

### Summary of Call for Service Workload Factors

Category	Value	Pct.
<b>Total Number of Calls for Service</b>	<b>11,681</b>	<b>47%</b>
Avg. Primary Unit Handling Time (min.)	36.9	
<b>Backup Units Per CFS<sup>1</sup></b>	<b>0.75</b>	<b>26%</b>
Avg. Backup Unit Handling Time (min.)	27.7	
<b>Reports Written Per CFS<sup>2</sup></b>	<b>0.33</b>	<b>19%</b>
Time Per Report (min.)	45.0	
<b>Jail Transports/Bookings Per CFS<sup>3</sup></b>	<b>0.10</b>	<b>8%</b>
Time Per Jail Transport/Booking	60.0	
Avg. Workload Per Call (min.)	78.7	
<b>Total Workload Hours</b>	<b>15,315</b>	

Overall, each call for service represents about 78.7 minutes of workload on average for patrol deputies. Primary unit handling time is around half of that time, and at 36.9 minutes per call, is within the typical range for a law enforcement agency, as is the total of 78.7 minutes per call.

#### (6) Patrol Unit Availability and Overall Proactivity

Proactive time is calculated through an analytical approach that examines the community-generated workload handled by patrol units, as well as the current staffing levels of the division, in order to produce a realistic estimation of the department's staffing needs at its targeted service levels. The data required to complete the analysis has been obtained from the computer aided dispatch system and other statistical data maintained by the Broward County Sheriff's Office. A number of assumptions have been made in the approach in order to provide an accurate model of patrol workload. The following dot points provide a summary of these factors:

<sup>1 2 3</sup> The corresponding workload factors are estimates based on the experience of the project team. Data for backup units was not available in the CAD records received by the project team.

- Proactivity is calculated by subtracting the time spent by units handling community-generated workload from the total actual availability of patrol units.
- While proactivity needs depend on the community served by the agency, between 35% and 50% of the actual time worked in the field by patrol units should be used to handle community-generated workload. The remaining portion of time should be used to conduct proactive patrol and community policing.
- The estimated availability of patrol units is calculated by factoring in all leave, training, overtime, time spent performing administrative functions, and every other impact to actual officer availability from the base authorized staffing figures.
- Proactivity analysis focused only on patrol officers the activity and staffing of all other functions provided by the department – including all investigative, support, management, and special services – are not included in any of the calculations.
- In some cases, data is not available to exactly represent every aspect of the department covered by the proactivity model. Time spent writing reports when not assigned to a call, for example, based on project team experience.
- The percentage of proactive time available to patrol units is understood as an overall average that varies constantly from day to day.

Overall, the goal of the analysis is to accurately model the ability of patrol units to be proactive given current staffing allocations, and should not be considered a performance measure of how the proactive time is being used. Instead, the analysis ties the workload completed by patrol units to staffing levels in order to provide the opportunity for effective proactive policing. In general, agencies should target from 35 to 55% of total net available time as an effective level of patrol unit proactivity.

The following table outlines the various factors comprising the net availability of patrol deputies, which is then used to calculate their overall proactivity given the level of community-generated workload they handle:

### Analysis of Patrol Deputy Net Availability and Overall Proactivity

Category	Value
Annual Work Hours	2,080
Total Leave Hours	261
On-Duty Training Hours	95
On-Duty Court Time Hours	20
Administrative Time Per Shift (min.)	90
Total Administrative Hours	235
<b>Net Available Work Hours Per Deputy</b>	<b>1,469</b>
<b>% Net Availability</b>	<b>70.6%</b>
Number of Patrol Deputies	35
Total Workload Hours	15,315
<b>Overall Proactivity Level</b>	<b>70.2%</b>

**Overall, a level of proactivity of over 70% represents an exceptionally high level of patrol coverage.** Out of their available time on-duty – after factoring in leave, training, administrative time, and other tasks – patrol units are committed to community-generated activity less than 30% of the time.

#### Staffing Needs

Beyond the threshold of what is considered to be a minimum effective level of proactivity, the number of patrol deputies required to staff a patrol force is largely a question of the level of service that is desired and supported by budget. The table below presents the patrol deputy staffing needs by each level of service, using Cooper City's own data from the past year relating to staff availability and the rate at which community-generated incidents occur within the boundaries of the city:

**Patrol Staffing Needs at Current Workload Level, by Proactivity Target**

<b>% Proactivity</b>	<b>Deputies</b>
<b>35%</b>	17
<b>40%</b>	19
<b>45%</b>	20
<b>50%</b>	22
<b>55%</b>	25
<b>60%</b>	28
<b>65%</b>	31
<b>70%</b>	37

As the table demonstrates, the relationship between the targeted proactivity level and the staffing requirements to achieve it is not linear – for each increase in overall proactivity by 5%, more deputy FTEs are needed to achieve the next increment. To move from 60% to 65% proactivity requires only three more deputy positions, but to move from 65% to 70% requires an additional six deputies. This underscores the finding that the level of patrol staffing in Cooper City relative to the workload that units handle is very high – well beyond the typical range for agencies in similar service environments.

Additionally, it should be considered that the value of increasing proactivity toward achieving desired public safety outcomes (e.g., decreasing crime, quality of life issues being addressed, better community ties, etc.) reaches a point of diminishing returns. For instance, while the effectiveness of a patrol force is greatly enhanced at 35% in comparison with a level of 25%, the difference in effectiveness between proactivity levels of 70% and 65%, is not nearly as significant. Furthermore, as mentioned earlier in the section, between 35% and 55% generally represents an effective target for overall patrol proactivity – well below current level of 70.2% in Cooper City.

It is important to note that even as the number of deputies required decreases significantly from 35 to 70% in the previous table, sergeant staffing level needs do not

vary reflexively in the same manner. With four different patrol shift teams, as well as the need to staff a relief sergeant position to account for turnover and leave factors, a minimum of five sergeant FTEs must be allocated to patrol, regardless of the targeted service level.

Given the significant amount of time deputies have available to be proactive in addressing community public safety issues and other service needs, the utilization of the time in which deputies are not committed to responding to calls for service is of particular importance.

***Recommendation:***

***As part of a long-range police services planning process, determine what patrol service level objectives are appropriate for the city, and whether current resources are in line with those levels.***

If the city desires the exceptionally high level of service it has contracted for, evidence of an acceptable use for this exceptional level needs to be provided. The next section explores the use of proactive time.

**(7) Analysis of Patrol-Initiated Events**

With the remaining time available to patrol units on-duty outside of handling these workloads, deputies assigned to Cooper City generate a significant number of self-initiated incidents – well over the number of community-generated events they handle, as shown below:

Category	# of Events	Avg./Day
<b>Total Calls for Service</b>	11,681	32.0
<b>Total Self-Initiated Incidents</b>	15,107	41.4

In total, about 30% more incidents are generated by deputies than calls for service generated from the public.

The following chart shows the distribution of events by the incident code they are assigned in the CAD database:

#### Most Common Categories of Self-Initiated (SI) Incidents

Category	# of Events	% of Total SI
POLICE SERVICE CALL	11,888	78.7%
TRAFFIC STOP	2,576	17.1%
TRAFFIC	395	2.6%
CODE ENFORCEMENT	63	0.4%
CONTACT	24	0.2%
SUSPICIOUS VEHICLE	24	0.2%
MISDEMEANOR	22	0.1%
DRUNK DRIVER	17	0.1%
NARCOTICS	16	0.1%
FELONY	15	0.1%
All Other Types	67	0.4%
<b>Total</b>	<b>15,107</b>	<b>100.0%</b>

As the chart demonstrates, incidents that are included under the broad category label of “Police Service Call” represent the vast majority of all self-initiated incidents completed by BSO deputies assigned to Cooper City. With 11,888 of these events being completed over the past year, this activity translates to an average of approximately 33 incidents per day. Self-initiated incidents categorized as “police service calls” alone are in greater number than community-generated calls for service.

The charts on the following page display the distribution of these events by employee and shift team:

## Shift A

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SAN, R	27	36	50	31	31	23	26	35	38	36	29	37	398
ROD, J	8	27	31	30	25	35	20	44	35	40	22	19	336
SOT, M	27	24	28	33	14	24	37	27	28	29	30	31	331
HAB, W	29	30	20	29	29	25	24	15	16	32	27	46	322
SMI, D	29	27	23	29	25	38	35	5			27	23	261
MAC, A	27	26	15	7		34	38	8		16	34	53	258
ROB, J	6	29	20	12	19	18					28	29	161
ABR, J	20	15	15	15	7	10	11	12	8	13	12	19	156
ART, G	8	2	16	17	5	3	9	14	17	35	8	1	133
ROD, A								25	30	45			100
GOR, D	11	9	10	10	11	11	4	8		0	7	12	93
CLA, A	12	11	5	8	10	13	3				18	1	83
HER, M						6	27	12	12	9			66
DEL, M	6	9	7	5	10	6	4	1	5	3	6	2	64
WAH, J					4	6	7	20	14	10			61
ROB, C	3	5	1	5	3	3	2	3	4	3	4	21	58
MUR, G	9	9	4	6	5						17	6	57
NOR, M	22	2									14	7	45
BRA, K		1	1	1	2	12	15	5	2	3			42
ZIM, R								13	18				30
,	5							1	1			4	11
ANT, G						1	1						2
LEG, E											1		1
HER, J											1		1
NEV, C									1				1
HOD, R							0						0

## Shift B

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
HOD, R	29	33	21	25	29	18	15	18	30	17	21	23	279
NEV, C	20	15	19	17	11	10	17	21	6	8	21	23	187
HER, J	33	30	4	1	7	11	3	3	11	7	15	27	152
MIL, D	18	8	12	22	11	8	9	11	12	5	17	11	144
KIN, K	7	10	10	17	10	10	9	6	18	28	2	6	133
SMI, D								37	31	27			95
LI, M	5	8	6	9	13	7	7	5	7	7	6	13	92
TAY, A	12	5	9	7	6	9	3	6	11	8	8	3	87
WOO, D	9	10	9	6	4	6	3	3	2	2	13	6	73
LEG, E	3	4	3	5	4	7	7	6	6	3	6	10	64
LAN, B	1	3	6	5	3	11	11	4	5	3	2	9	63
NOR, M		7	6	12	3	14	8	8	4				61
LEM, J					4	2		8	10	15			38
DUN, C						1	0	5	6	17			29
ROD, A	2	2	0	0	5	1	2	1			3	9	27
PER, C	4	1	4								8	6	23
COV, K	4										3	10	17
TOR, K	0	1	3	6	1								12
LEA, P	2										3	6	11
HOP, T	4	1									1	3	8
TRE, G								5	2				7
CLA, A					1	3	0						5
KOE, C										2			2
GOR, D			0					2					2
ROD, J				2									2
LAS, D										0			0

Sergeants, by contrast, spend very little time on events labeled as “Police Service Calls,” as evidenced below:

### Sergeants

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
DEA, R	4	2	1	0	1				1		7	6	22
JAM, D	0	0		2		0	0	0	1		11	5	20
ALL, W	0			0		0		0		3		1	5
COT, A	0						1	0				1	1
TAR, J	0											0	0
Total	406	402	359	371	313	385	359	396	391	427	430	492	4,731

A number of observations can be made from the three charts:

- The number of hours by deputy ranges significantly, with some deputies spending more than a quarter of their available time on-duty on these events.
- Overall, the number of hours spent on these events represents nearly one-fourth of the total activity of patrol deputies, including both community-generated and self-initiated activity.
- Because these events are grouped under one common incident category, it is impossible to conduct any kind of meaningful analysis on the value of the activity.
- Furthermore, because data for backup units was not available in the CAD data, it is unclear if in these events more than one units was involved.

In Cooper City, less than half of the time deputies are available and on-duty is spent responding to calls for service, and the majority of their available time may be used to proactively conduct community and problem-oriented policing. To this point, in the past year, Cooper City deputies self-initiated more events themselves than they responded to.

While this is an exceptional level of activity, it is unclear what this activity represents. Given how large of a portion of time these events represent, both in terms of

available time on-duty, as well as to the value of services being contracted for by Cooper City, the fact that they cannot be reviewed in greater detail represents an issue.

The process of adding a mechanism for review proactive time utilization would be multi-faceted. Before more information on the subject can be provided, the Cooper City BSO district must work with centralized services to ensure that the CAD incident type categories are sufficient to cover the different activities deputies are completing in their proactive time, and make any changes or additions as needed. Once the CAD definitions are in place and deputies begin recording proactive events under more detailed event categories, a dashboard for tracking frequency of trends of these incidents by category will need to be developed and set up by the crime analyst assigned to Cooper City, in the same manner that crime occurrences are tracked across individual categories. The resulting statistics should then be transmitted to the city manager in a monthly report alongside other monthly reports already submitted to the city.

While these steps create additional workloads, and present certain difficulties up-front as a result of the setup process, the addition of such a reporting mechanism greatly enhances transparency of the law enforcement services provided by BSO. Given that proactive time represents over 70% of the total time deputies are available on-duty, it is critical for the contracting city or be able to have an idea of how that time is being used.

***Recommendations:***

- ***Record deputy-initiated incidents in CAD with greater detail, and use this information to develop and present statistics on how proactive time is utilized to the city manager on a monthly basis. The use of the vague and all inclusive term, 'police service call' needs to be abandoned.***

- ***Add provisions to the next revision of the contract specifically detailing the reporting of utilization statistics by the BSO for field and investigative functions.***

## **(8) Auxiliary and Specialized Field Services**

The city's law enforcement complement includes seven community service aides (CSAs), who function in a variety of tasks and functions as non-sworn field personnel. These roles include responding to non-injury accidents, handling community-generated quality of life issues, enforcement of city code ordinances, completing administrative duties, and a variety of other duties in field.

As many of these workloads would have to be completed by sworn patrol units in the field, the diversion of these call for service responses and other duties handled by CSAs is critically important to patrol deputies' ability to be largely proactive in the field. It is important to note that the workload totals displayed in the earlier sections relating to patrol staffing do not include the calls and other workloads handled by CSAs.

The next section discusses how the roles of community service aides can be expanded to include the diversion of certain basic case workloads, such as following up in cases with very low solvability, away from the core investigators assigned to Cooper City.



## **2. Investigative Workloads**

The following sections outline the division of responsibilities between investigative functions handled by detectives assigned to Cooper City's dedicated complement and the centralized investigative resources of the BSO. The chapter outlines the role that, in a district where major crimes are investigated regionally, community expectations for service levels, as well as the extent to which case screening management practices are used, play key roles in driving staffing levels.

## (1) Crime Trends

Part I crimes have declined over the last five years, although there has been a moderate degree of fluctuation from year to year, as evidenced by the following chart:

**Part I Crimes in Cooper City, 2009 – 2013**

	2009	2010	2011	2012	2013	
<b>Violent Crime</b>	<b>64</b>	<b>50</b>	<b>41</b>	<b>48</b>	<b>50</b>	
Murder and nonnegligent manslaughter	0	0	0	0	0	
Forcible rape	3	5	1	0	3	
Robbery	14	10	11	9	11	
Aggravated assault	47	35	29	39	36	
<b>Property crime</b>	<b>665</b>	<b>624</b>	<b>650</b>	<b>666</b>	<b>558</b>	
Burglary	123	156	143	120	105	
Larceny-theft	525	452	475	518	436	
Motor vehicle theft	17	16	32	28	17	
Arson	3	7	1	2	0	
Part I Crimes Per 1,000 Pop.	17.4					
5YR Violent Crime Change						▼ -22%
5YR Property Crime Change						▼ -16%

Considering the entire picture of crime trends over the last five years, it is unlikely that major crime levels will increase significantly in the next five years.

## (2) Scope of Services for Cooper City Detectives

Major crimes, including nearly all felony cases, are investigated by the centralized Criminal Investigations Division within the Broward Sheriff's Office. In a large regional service model such as the one practiced by BSO in Cooper City, this is a best practice, as it allows for the cases of the highest importance to public safety to be investigated by specialized detectives that have experience and often training that would otherwise not be available to a smaller agency. Investigators are organized as follows at the main BSO facility:

- **Violent Crimes Section:** Violent Crimes Unit, Homicide Unit, Missing Persons Unit

- **Major Crimes Section:** Special Victims Unit, Robbery Unit, Economic Crimes Unit
- **Administrative Support Section:** Case Filing Unit, Victim Advocate Unit, Crime Scene Unit, Crime Lab, Career Criminal Unit

Given the role of regionally provided services, the investigative responsibilities of the five detectives assigned to Cooper City are limited to include most types of misdemeanors, as well as a few types of felony cases. Examples of the types of cases that Cooper City detectives would handle include misdemeanor batteries, domestic violence, exploitation of an elderly person or disabled adult, and all fraud cases involving a total value under \$10,000, among others.

### (3) District Investigator Caseloads

The following table presents the total number of cases assigned to Cooper City detectives over the past year, including the number of those that were cleared by arrest, as well as various other categories documenting the cause of case inactivation:

**Cases Assigned to Cooper City Investigators**

Investigator	ACTI	CBA	CLNC	EXC	INA	NIC	UNF	Total
BRACKE	1	7	0	0	8	0	0	16
GAINEY	50	23	0	7	127	5	2	214
PETOSKEY	80	23	0	12	92	4	6	217
RUSH	1	14	0	0	6	1	0	22
SCHROEDER	0	1	1	1	65	0	1	69
STRACHAN	58	18	0	9	96	1	9	191
<b>Total</b>	<b>190</b>	<b>86</b>	<b>1</b>	<b>29</b>	<b>394</b>	<b>11</b>	<b>18</b>	<b>729</b>

It is important to note that the figures listed in the table above represent case assignments, rather than the number of cases that were actively investigated by detectives during that period.

Cases are only assigned and worked on by Cooper City detectives for cases that originate within the City's boundaries, which was confirmed by the interviews conducted

by the project team that reviewed detective caseloads. Case assignments for individual detectives are driven by the zones they are assigned – as cases are generated from within the area that they are responsible for, assignments are made. Exceptions can be made by the supervising detective sergeant if the caseloads of a detective are significantly larger or smaller than those of the others. For callouts that occur outside of the regular hours worked by detectives (0800 – 1600, Monday through Friday), a three-week on-call rotation system is used to determine who is responsible for handling them, rather than by zone.

Currently, the local Cooper City detective complement provides a very high level of service. While on-site, the project team conducted case audits with investigators, detailing each case they worked on within the last thirty days, including the circumstances of the case, the work they had completed within that timeframe, as well as the estimated solvability of the case. Although these interviews were completed with a sample of the Cooper City detectives, rather than with all, the process illustrated that a significant proportion – although not a majority – of the cases handled by investigators involve relatively low likelihoods of ultimately being solved. In these instances, the workload is in many ways a service to the community, given that a clearance by arrest is likely to not be achieved – regardless of the number of hours that are spent working on the case.

#### **(4) Community Expectations**

Given that major crimes are investigated by the centralized BSO detectives, rather than by the local district complement, investigative workloads are largely a question of the service level that is targeted. This may be driven in part by community input and expectations as to what kinds of cases are actively opened and investigated

(e.g., does the community expect that *all* burglaries are actively investigated by a detective?).

Policies guaranteeing that all cases – either ones of certain types, or in general – will be followed up on regardless of solvability or severity, significantly increase the investigative workload that detectives must handle. Correspondingly, these policies increase the number of staff needed to handle those workloads.

However, by contrast, if a higher number of cases are screened out and do not receive any significant efforts by detectives, community members may feel that they are receiving a lower level of service. Citizens have an interest, and perhaps in many instances an expectation, to see that the crime that they reported to law enforcement is being investigated at least to some extent. These issues can be mitigated somewhat through a number of means that minimize the impact that cases with low solvability have on investigator workload, while still providing a service to the community, including the following:

- Using non-sworn investigative staff to perform research on cases, particularly those relating to property crimes with relatively minor value involved and/or those with low solvability.
- Retaining non-sworn investigators to handle minor property crimes with low solvability entirely, from the point of the case being assigned to inactivation.
- Increasing the role of patrol and light duty staff in conducting follow-up for minor crime incidents that will not receive significant investigative efforts.

Through these methods, any effect that the use of solvability factors may have on the level of service experienced by the community may be mitigated. To this point, the level of service can even be expanded and enhanced, as currently follow-up for low-priority and low-solvability cases must compete with the other workloads of detectives. By diverting these workloads to other personnel, such as community service aides, a

greater emphasis may be placed on the customer service elements involved with these cases.

## (5) Case Management and Screening Processes

Despite any differences with community expectations, the use of case screening, solvability factors, and comprehensive case management systems allows for investigative resources to be more efficiently directed toward the cases that have greater solvability, not presenting significant impacts to the number of clearances made by detectives.

Two methods for screening cases are summarized below for reference:

- **Case screening by severity:** Outlines regarding the type or severity of a crime that must be met for a crime to be investigated, regardless of the circumstances of the case. For instance, in property crime cases, many agencies require certain thresholds in value to be met before a case of a given type to be considered.
- **Case screening using solvability factors:** Often determined using a standardized quantitative screening tool, the use of solvability sets requirements on whether or not a crime will be actively investigated based on the expected probability of that case being cleared. The use of solvability factors allows for resources to be prioritized and conserved for more productive workloads.

The latter area underscores the need for supervisors to manage and prioritize the workloads of detectives. To be able to do so, supervisors require access to information that details the case activity of detectives, as part of a comprehensive case management system. Supervisors are then better able to assign new cases according to the distribution of work between detectives, as determined by their activity on existing cases, which may vary in workload based their circumstances and solvability. Formalizing the review of this information allows for the effectiveness of investigative and case management practices to be reviewed, and for supervisors to have an improved understanding of any opportunities for improvement.

## **(6) Considerations for Current and Future Investigative Staffing**

As a consequence of these trade-offs – and given that the local Cooper City complement does not handle major crimes, which tend to involve significantly higher workloads per case – detective staffing needs largely depend on the level of service that is targeted, as well as whether screening and solvability factors are used to focus workloads on cases with a higher probability of clearance.

Given that the proactive time available to Cooper City patrol units is very high – with large amounts of time available to dedicate to other tasks while still remaining mostly proactive in the field – there is significant potential to utilize them in investigative functions. Their roles can include follow-up, investigation of minor issues, expanded proactive involvement on expected ‘pattern-based’ crimes, and other functions. Community Service Aides are also able to play many of these roles, particularly those involving follow-up on crimes with very low prospects for solvability.

In coordination with city leadership, define the basic expectations for service level in investigating crimes not handled by the BSO’s centralized investigative resources (e.g., whether all crimes are investigated, whether sworn – rather than civilian – follow-up should be required in all cases, etc.).

### ***Recommendations:***

- **Formally outline a case screening process for investigating crimes that would have otherwise been handled by detectives assigned to Cooper City and divert them to other resources.**
- **After implementing an enhanced case screening process, utilize patrol units and community service aides to conduct follow-up and basic investigative tasks on the cases that are not assigned to detectives.**
- **After implementing enhanced case screening and management, review detective workloads in order to determine investigative resource needs in the future.**

#### 4. Support Functions and Community Involvement

Crime prevention and community outreach functions are handled by a position classified as a Community Involvement Specialist. This provides for an effective combination of community programs to be administered in conjunction with crime awareness and other prevention activities, including the following incomplete list:

##### Summary of Community Outreach and Crime Prevention Activities

- Communicates and coordinates with homeowner associations on a wide range of crime prevention and code-related issues
- District liaison for the Senior vs Crime Project organization
- Various meetings for various community organizations (e.g., Safe Kids Broward, American Legion, Special Olympics, Walk in My Shoes, etc.)
- “Dangerous Strangers” presentations to Cub Scouts
- Contacts burglary victims to offer tips and arrange home security surveys
- Sends new residents a “Welcome to Cooper City” letter
- Hosts RAD Women and RAD Kids educational seminars
- Security surveys for homes, businesses, and public spaces (drawing from, but not officially CPTED)
- Neighborhood watch coordination
- TRIAD (partnership with AARP hosted by Davie PD)
- Assists individuals that contact BSO directly with crime prevention questions or issues
- Contacts businesses with high frequencies of false alarm events
- Hosts various community events, including Chip-a-Pet, Tip-a-Cop, and others)
- Light Up Cooper City (event including the distribution of holiday safety tip brochures)

Under a regional law enforcement model, it is essential that the experience of the community center around locally provided services tailored to their needs – in the same manner as a local police department. The wide range of outreach efforts reflected in the list above serves as evidence that BSO has put forth significant efforts to achieve this, by developing and maintained extensive ties within the community through its programming efforts – much of which is done proactively. Crime prevention efforts are also significant, and outreach efforts have provided an effective tool to communicate information and provide services related to crime prevention.

## 4. ANALYSIS OF THE FIRE SERVICES CONTRACT

This Chapter of the report provides the analysis of the current contract between the Broward County Sheriff's Office (BSO) and the City of Cooper City for the provision of fire rescue services in the community. In Appendix B is contained a complete descriptive profile of the fire services provided to Cooper City by the BSO.

### 1. Summary of Fire Services Contract Components

The following sections detail different aspects from the portions of the contract relative to fire services, beginning with an outline of the service and resource levels it requires, as well as an examination of key contract compliance areas.

#### (1) Overview of Contracted Services

The fire services portion of the contract with the Broward County Sheriff's Office provides for 24-hour coverage, seven days a week, and specifically outlines the provision of the following services:

##### Outline of Contracted Services

- a) Possession and maintenance of a Class 1 – ALS Rescue Certification and Necessity (CON) and an appropriate State of Florida license enabling BSO to provide advance life support (ALS) services, as well as basic life support (BLS) services.
- b) Emergency medical transportation to an appropriate hospital for medical calls
- c) Fire prevention services, including inspection and plan review through use of properly certified personnel.
- d) Annual inspections of every non-residential establishment within the City
- f) Hazardous material response services through personnel that are equipped and trained to provide specialized response
- g) Technical rescue services through specially equipped and trained personnel, for above grade high angle and below grade rescues
- h) Public education programs on fire safety and prevention
- i) The District Fire Chief will attend and participate at all City staff meetings, City Commission meetings and Development Review

Committee meetings.

The contract also requires the BSO to provide the City with a central dispatch center and E-911 Communications System without additional cost to the City.

In addition, the City benefits from a number of regional services that are not specified in the contract, but provided by the BSO as part of their regional services.

These include:

#### Outline of Regional Services

- a) 2 Battalion Chief automatically dispatched to working fires and Hazardous Materials incidents
- b) 24 hour on call fire investigation
- c) Rehabilitation Unit for prolonged incidents
- d) Mobile Air Unit
- f) 24 hour on call mechanic

## (2) Current Contract Staffing Levels

As of the latest addendum to the contract for services, the Broward County Sheriff's Office is required to allocate the following staffing levels to the Cooper City fire rescue complement; this includes staffing for the second rescue now in service:

**BSO Fire Rescue Staff Assigned to Cooper City**

Category	#	Classification
<b>Sworn</b>	1	District Fire Chief
	4	Captains
	13	Lieutenants
	9	Driver/Engineers
	26	Firefighters (including paramedics)
	1	Fire Inspector
<b>Non-Sworn</b>	1	Clerical

It should be noted that the staffing levels listed above do not include any of the regional or centralized services, such as fire investigation, technical rescue and

hazardous materials response as well as the administrative function of the BSO which support the fire rescue operations in Cooper City.

## 2. Analysis of Contract Requirements

The contract with BSO includes a number of important provisions on the assignment of personnel to the district, as well as the limit for annual increases to the total cost of the BSO's services, among other key areas. The following sections provide detail and analysis on these considerations, and identify opportunities to revise or add to sections of the contract in the future.

### (1) Summary of Contract Requirements

The table below summarizes some of the more important aspects of the contract:

**Summary of Key Contract Considerations**

Personnel Reassignment	Both the city manager and BSO reserve the right to transfer or reassign an employee out of the Cooper City district with permission of the other.
Staff Retention	The contract does not mandate specific periods of assignment, although no more than 10% of all personnel assigned to the Cooper City district may be transferred without permission of the city manager.
Cap on Contract Cost Increases	Maximum of 5.0% base increase in cost per year over the previous year (not including vacancy credits). Additional increases may be made for costs associated with health insurance premiums, workers compensation premiums, and pension contributions, up to a maximum of 5.3%.
ISO Rating	The current ISO rating of the City is required to be maintained or improved during the term of the agreement.
Vacancy Credits	The costs of any positions that are not filled for more than twenty-one days due to either sickness, disability, outside assignment, or because the position itself is unfilled (e.g., in the case of termination, retirement, etc.) – and not temporarily filled or staffed through – are paid back to Cooper City, using the fourth pay step value, as well as the value of any associated benefits.

---

Due to the minimum staffing requirements in Fire Rescue, vacancies are filled when they occur to ensure minimum staffing levels are maintained on a constant basis; therefore, the vacancy credit does not apply to Fire Rescue.

The following sections present additional discussion and analysis on selected areas of this table, examining individual issue areas within the BSO contract.

## **(2) Personnel Reassignment**

While the contract does not set forth any specific standards for staff retention or assignment, it does give the city manager the ability to request that an employee be reassigned outside of the city. However, the provision depends on the sheriff signing off on the action, and is not guaranteed. This presents the city with almost without significant assurance that personnel will be in their positions long enough to develop familiarity of the city, and knowledge of local fire protection needs and target hazards located within the Cooper City.

The contract also states that no more than 10% of the current certified fire/rescue personnel will be removed from service in any given year with approval of the City Manager. During interviews several personnel stated that transfers occur on a more frequent basis and are often required for personnel to be promoted. Also, Article 11(D) of the collective bargaining agreement allows for annual bidding of stations, shift and apparatus by members of the bargaining unit. This annually bidding process can result in personnel bidding to be assigned to stations other than Cooper City on an annual basis.

It would be beneficial for the City to have a minimum 2-year service requirement for personnel assigned to the Cooper City station unless they are promoted to another position in the BSO to limit movement due to bids and transfers not associated with a

promotion. Future versions of the contract should include language that places at least a minimum level of guarantee that personnel will not be quickly swapped in and out of assignment at the BSO's Cooper City Fire Rescue District, without presenting burdensome restrictions on either the sheriff's ability to redeploy personnel within the organization, or for the career development of assigned BSO Fire Rescue employees.

**Recommendation:**

***Revise the language in the contract with the BSO to have personnel serve a minimum of two years in Cooper City unless they receive a promotion that requires a transfer out of the district. The City Manager may sign waivers of this restriction as needed. This provision would also be subject to approval in collective bargaining.***

**(3) Performance Objectives**

The contract is vague when referring to performance objectives for Fire Rescue services. The contracts states the following:

**Dispatch and Response**

BSO's emergency response units shall make every reasonable effort to respond to emergency calls as expeditiously as possible while maintaining safe operations, subject to BSO's response standards and protocols.

There are several important considerations that should be made from the text of the contract:

- BSO Fire Rescue is accredited through the Center for Public Safety Excellence (CPSE).
- BSO has established the call processing, turnout and travel times for Cooper City to conform to the benchmark standards as established in the BSO Fire Rescue Standard of Response Coverage document when they compare current overall system performance to expected service level goals.
- While BSO has established the Benchmark standard overall, the document does not state that City of Cooper City could determine that locally the baseline performance objective is desirable and acceptable and therefore adopt a lesser standard that is still credible under CPSE standards.

The following illustrates the current national standards related to response time performance for cities in the urban classification such as Cooper City Fire Rescue:

#### Comparison of NFPA and CPSE Performance Objectives

Performance Objective	NFPA 1710 – 2010 (90%)	CPSE (90%)
Call processing (dispatch) time/ call answered to units dispatched	<ul style="list-style-type: none"> <li>• 60 seconds</li> </ul>	<ul style="list-style-type: none"> <li>• 60 seconds (Benchmark)</li> <li>• 90 seconds (Baseline)</li> </ul>
Turnout Time (units en-route)/ unit dispatched to time en-route to the emergency.	<ul style="list-style-type: none"> <li>• 80 seconds</li> </ul>	<ul style="list-style-type: none"> <li>• 80 seconds (Benchmark) Fire</li> <li>• 60 seconds (Benchmark) EMS</li> <li>• 90 seconds (Baseline) Fire &amp; EMS</li> </ul>
Travel time/time en-route until arrival at emergency scene.	<ul style="list-style-type: none"> <li>• Four (4) minutes for first unit/ Fire</li> <li>• Eight (8) minutes for first alarm/fire assignment.</li> <li>• Four (4) minutes first responder/EMS</li> <li>• Eight (8) minutes ALS unit/EMS</li> </ul>	<p><b>Urban (2,000+ pop. per sq. mile)</b></p> <ul style="list-style-type: none"> <li>• Four (4) minutes for first unit (Benchmark)</li> <li>• Eight (8) minutes for second unit/first alarm assignment</li> <li>• 5 minutes 12 seconds for first unit (Baseline)</li> <li>• 10 minutes 24 seconds for second unit/first alarm assignment (Baseline)</li> </ul>

As shown above, expected call processing performance is between 60 and 90 seconds 90% of the time, turnout time between 60 to 90 seconds 90% of the time and travel time between 4 minutes and 5 minutes 90% for the first unit and between 8:00 and 10 minutes 24 seconds for the second unit/first alarm assignment.

The next table illustrates the performance of the Cooper City Fire Rescue units for initial unit response as reported to CPSE in the most recent Standard of Response Coverage document (2012) and examines 2008 – 2011 performance related to response time performance only to structure fires:

Cooper City Baseline Performance Table 2008 - 2011

Performance 90%	2008	2009	2010	2011	2008 – 2011
Call Processing	2:20	2:01	2:41	2:05	<b>2:26</b>
Turnout Time	1:06	1:48	0:51	1:16	<b>1:12</b>
Travel Time	4:06	4:32	5:17	4:19	<b>4:35</b>
Total	7:32	8:21	8:49	7:40	<b>8:13</b>

As shown above, while Cooper City was able to meet CPSE baseline performance levels for first unit structure fire turnout and travel time response, they were not able to meet benchmark performance levels for either category. Also the dispatch center performed below baseline standards for processing these calls in Cooper City.

**Recommendation:**

***The City should work with the BSO to develop performance measures for call processing, turnout and travel times specific to the call processing and response time performance of units assigned to the Cooper City fire station and revise the contract language accordingly.***

**(4) Overtime Costs**

During interviews between project staff and key stakeholders during the study the issue of escalating overtime costs in Fire Rescue was a frequent topic of conversation. There are no specific policies and procedures regarding overtime in the contract. As a result, overtime is absorbed within the total cost of the contract for a given year, falling within the overall 5% per year cap on total cost increases. Likewise, the BSO retains full discretion on how overtime is managed, distributed, and tracked for personnel assigned to the Cooper City Fire District. Because overtime represents a significant cost variable for any fire rescue agency, the monitoring and review over its usage is critical to controlling the costs of providing services.

However, because any expenditures made by BSO associated with overtime are included within the overall cost of the contract for a given year – and are

correspondingly bound within the 5% cap, whether the overtime is to backfill a position or as a special deployment/service request – the absence of contract controls on overtime usage does not pose significant issues or risk for Cooper City as costs above the annual contract price must be absorbed by the BSO.

In the case of overtime for the purposes of backfilling, when a position within the Fire Rescue District is vacated, the BSO is required to compensate Cooper City for the cost of the position unless the vacancy is corrected within twenty-one days. This can be done either through backfilling the position from elsewhere within the organization, staffing the position with a new hire, or by filling the vacancy by overtime (if the position can work overtime). Given that staffing a position through overtime is the most expensive of the of the three, the BSO thereby incentivized to fill the position in a timely manner in order to minimize overtime costs. If the cost of providing services exceeded the 5% cap on contract increases, the BSO would be responsible for bearing that cost.

Cooper City BSO Fire Rescue personnel assigned to respond on emergency apparatus work a 24-hour shift schedule that conforms to the FLSA 56 hour work week provision for sworn fire personnel. The BSO, in addition, requires the use of “Kelly Days” to further minimizes the risk of additional overtime generation. The “Kelly Days” require a 24-hour shift to be taken off to eliminate the need to pay 6 hours overtime each pay period. As a result of this practice, overtime is not built-in to the deployment schedule.

As shown in the organizational profile, Cooper City pays for 41 personnel to ensure a constant staffing of 9 personnel on each fire shift each day. This allows 4 personnel to be off on scheduled or unscheduled leave before overtime is required to fill a vacancy in Cooper City. It also allows extra positions in the BSO to float when staffing

levels are above minimum staffing to minimize the need to use overtime to fill unplanned vacancies. The current bargaining agreement allows “interchangeability” up to 12 times per year per person to reduce overtime, in essence this allows personnel to “float” from their bid position to fill another position they are qualified to fill in the event of a vacancy. There are also times when personnel with specialty licenses and certifications may be transferred to fill vacancies in specialty units and overtime is needed to cover the shift for the person transferred. Cooper City has personnel with specialty certifications to serve on the hazardous materials and technical rescue teams.

As there is no provision for overtime controls in the contract, there is no reporting as to the cause of overtime from the BSO to Cooper City. The City may want to include this type of provision in future contracts with the BSO if they become responsible for actual overtime costs to ensure they are only charged overtime when actual vacancies in the Cooper City Fire Rescue District are the direct cause of the required overtime.

***Recommendation:***

***There is no need to amend or add provisions for overtime controls and usage in the next version of the contract, but the City would benefit from requiring reporting as to the cause of any overtime charges if they become responsible for actual overtime expenses in the Cooper City Fire Rescue District.***

**(5) Reporting and Contract Management**

While allocated staffing levels, as well as the process for transferring back credits for position vacancies, are clearly detailed in the contract, there are few established standards for reporting on service level and performance issues. The contract states the following in regards to fire rescue reporting procedures:

Additional Services

18.6 In recognition of the CITY'S need to be informed of BSO's activities, BSO's District Commander/Chief, District Fire Chief and the City Manager will develop a mutually agreed upon reporting format(s)

and reporting period(s), whereby BSO will report its activities to the City Manager. At any time during the term of this Agreement, the City Manager shall have the right to make reasonable modifications to the reporting format(s), reporting content and reporting period(s).

A review of the current reports made by the District Fire Chief to the City show that these reports are counts of activity for the month for calls for service, fire prevention and public education programs. There is nothing in the monthly reports showing the actual performance of personnel related to service level objectives.

It is important for a contract city to be knowledgeable of the service level performance in fire rescue operations and fire prevention to be able to determine if customer service goals are being met. These are key drivers for when to add additional personnel or resources and will be discussed in-depth in the analysis of the workload and staffing needs of Fire Rescue in the next chapter of the report.

## 5. STAFFING ANALYSIS OF THE FIRE SERVICES

This chapter of the report analyzes the staffing and service levels for fire services in Cooper City. The primary focus of the fire department is to provide effective fire and EMS emergency response to the community, and departmental operation requires the majority of its resources.

### 1. Performance Objectives for Fire Rescue Response.

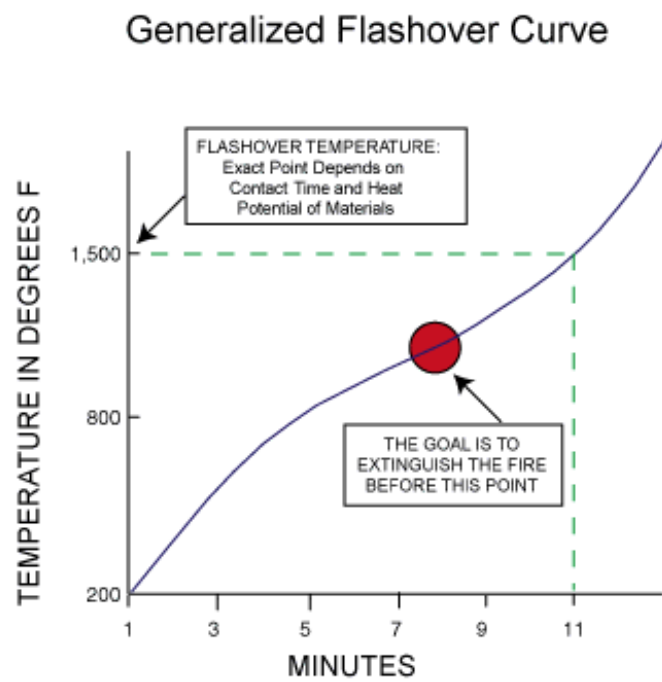
Current best practices in fire services include having clear performance measures to allow agencies to report to the governing body and community how well they are performing services compared to both national standards and adopted local response time objectives. By establishing clear performance measures and tracking how well the agency performs compared to the standards, it becomes clear when additional resources or changes to the deployment model are needed. The BSO is accredited through the Center for Public Safety Excellence (CPSE) and has adopted performance standards for an urban agency in Cooper City as discussed previously. In setting the performance standards a risk analysis was conducted which included input from the communities served by the BSO.

Nationwide, a great deal of effort and research has been put into developing performance objectives for the delivery of fire and EMS services. This effort is critical for agencies making decisions about deployment and location of emergency resources. The objectives promoted for fire/rescue and EMS have their basis in research of two critical issues:

- What is the critical point in a fire's "life" for gaining control of the blaze while minimizing the impact on the structure of origin and on those structures around it?

- What is the impact of the passage of time on survivability for victims of cardiac arrest?

The following chart demonstrates a typical “flashover” curve for interior structure fires. The point in time represented by the occurrence of “flashover” is critical, as it defines when all of the contents of a room become involved in the fire. This is also the point at which a fire typically shifts from “room and contents” to a “structure” fire – involving a wider area of the building and posing a potential risk to the structures surrounding the original location of the fire.



Note that this chart depicts a fire from the moment of inception – not from the moment that a fire is detected or reported. This demonstrates the importance of early detection, fast reporting, and rapid dispatch of responding units. This also shows the critical need for a rapid (and sufficiently staffed) initial response – by quickly initiating the extinguishing of a fire, “flashover” can be averted. The points below describe the major changes that occur when “flashover” occurs:

- It is the end of time for effective search and rescue in a room involved in the fire. This means likely death of any person trapped in the room – either civilian or firefighter.
- After this point in a fire is reached, portable extinguishers can no longer have a successful impact on controlling the blaze. Only larger hand-lines will have enough water supply to affect a fire after this point.
- The fire has reached the end of the “growth” phase and has entered the fully developed phase. During this phase, every combustible object is subject to the full impact of the fire.
- This also signals the changeover from “contents” to “structure” fire. This is the beginning of collapse danger for the structure. Structural collapse begins to become a major risk at this point, and reaches the highest point during the decay stage of the fire (after the fire has been extinguished).

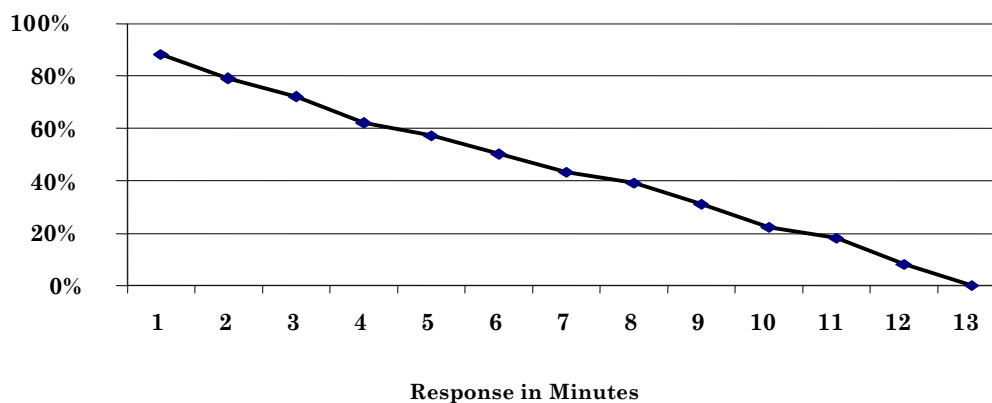
It should be noted that not every fire will reach flashover – and that not every fire will “wait” for the eight (8) minute mark to reach flashover. A quickly responding fire crew can do things to prevent or delay the occurrence of flashover. These options include:

- Application of a “fast attack” methodology.
- Venting the room to allow hot gases to escape before they can cause the ignition of other materials in the room.
- Not venting a room – under some circumstances this will actually stifle a fire and prevent flashover from occurring.

Each of these techniques requires the rapid response of appropriately trained fire suppression resources that can safely initiate these actions. In the absence of automatic fire suppression systems, access to interior fires can be limited by a safety requirement related to staffing levels. OSHA and related industry standards require the presence of at least two (2) firefighters on the exterior of a building before entry can be made to a structure in which the environment has been contaminated by a fire. In the absence of a threat to life demanding immediate rescue, interior fire suppression operations are limited to the extent a fire service delivery system can staff to assure a minimum of four

(4) people actively involved in firefighting operations. The second issue to consider is the delivery of emergency medical services. One of the primary factors in the design of emergency medical systems is the ability to deliver basic CPR and defibrillation to the victims of cardiac arrest. The following chart demonstrates the survivability of cardiac patients as related to time from onset:

**Survival Rate by Response Time**



This graph illustrates that the chances of survival of cardiac arrest diminish approximately 10% for each minute that passes before the initiation of CPR and/or defibrillation. These dynamics are the result of extensive studies of the survivability of patients suffering from cardiac arrest. While the demand for services in EMS is wide-ranging, the survival rates for full-arrests are often utilized as benchmarks for response time standards as they are more readily evaluated because of the ease in defining patient outcomes (a patient either survives or does not). This research results in the recommended objective of provision of basic life support within four (4) minutes of notification and the provision of advanced life support within eight (8) minutes of notification. The goal is to provide BLS within six (6) minutes of the onset of the incident (including detection, dispatch and travel time) and ALS within ten (10) minutes. This is

often used as the foundation for a two-tier system where fire resources function as first responders with additional ALS assistance provided by responding ambulance units.

Additional research is beginning to show the impact and efficacy of rapid deployment of automatic defibrillators to cardiac arrests. This research – conducted in King County, WA, Houston, TX, and as part of the OPALS study in Ontario, Canada – shows that the AED can be the largest single contributor to the successful outcome of a cardiac arrest – particularly when accompanied by early delivery of CPR. It is also important to note that these medical research efforts have been focused on a small fraction of the emergency responses handled by typical EMS systems – non-cardiac events make up the large majority of EMS and total system responses and this research does not attempt to address the need for such rapid (and expensive) intervention on these events.

Communities and first responders, often on their own with no single reference, have utilized the results of these research efforts to develop local response time and other performance objectives. However, there are now three major sources of information to which responders and local policy makers can refer when determining the most appropriate response objectives for their community:

- The Insurance Services Office (ISO) provides basic information regarding distances between fire stations. However, this “objective” does little to recognize the unique nature of every community’s road network, population, calls for service, call density, etc.
- The National Fire Protection Association (NFPA) promulgated a documented entitled: “NFPA 1710: Objective for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.” This document (NFPA 1710) was originally published in 2001 and generated a great deal of dialogue and debate – which is still on-going.
- The Commission on Fire Accreditation International (CFAI) in its “Standards of Coverage” manual places the responsibility for identifying “appropriate” response

objectives on the locality. These objectives should be developed following a comprehensive exercise in which the risks and hazards in the community are compared to the likelihood of their occurrence.

While each of these efforts provides a reference point for communities to follow, only NFPA 1710 and CFAI offer any specificity. It is important to note that the performance objectives (in terms of response times) provided in the NFPA 1710 document are derived from the basic research previously described. These include the following (all are taken from section 4.1.2.1.1 of NFPA 1710):

- One minute (60 seconds) for the processing of an incoming emergency phone call, including the completion of the dispatching of fire response units.
- “90 seconds for turnout time.” This is also called reflex time, reaction time, “out-the-chute” time, etc. This is the time that elapses between dispatch and when the units are actively responding.
- “Four minutes (240 seconds) or less for the arrival of the first arriving engine company at a fire suppression incident and / or 8 minutes (480 seconds) or less for the deployment of a full first-alarm assignment at a fire suppression incident.”
- “Four minutes (240 seconds) or less for the arrival of a unit with first responder or higher level capability at an emergency medical incident.”
- “Eight minutes (480 seconds) or less for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department.”
- In section 4.1.2.1.2, NFPA 1710 goes on to state: “The fire department shall establish a performance objective of not less than 90 percent for the achievement of each response time objective specified in 4.1.2.1.1”

It is important to note the “and / or” found in the initial response objective statement. This indicates that a system would meet the intent of the standard if it can reasonably plan to deliver either the single unit, four (4) minute travel time standard, the first alarm, eight (8) minute travel time standard, or both. It should also be noted that it is implied that the total time allotted is additive with each successive event. For example, a system that arrived on-scene in six (6) minutes or less 90% of the time (from time of

dispatch) would be in compliance – even if the turnout time was longer than a minute (though that should clearly be improved).

It is also critical to note that these time objectives apply to emergency calls for service – there is nothing in NFPA 1710 (nor in any other objective) that suggests that communities cannot establish a differential response to calls for service determined to be non-emergency in nature. A second element of the NFPA 1710 performance objectives addresses unit and total response staffing. These objectives are described in NFPA 1710 as follows:

- Engine and truck companies should be staffed with a minimum of four (4) personnel (sections 5.2.2.1.1 and 5.2.2.2).
- Section A.3.3.8 defines a company as either a single unit or multiple units, which operate together once they arrive on the fire ground.
- A total initial response is defined (in section 5.2.3.2.2) as having a total of 15 people (if an aerial is utilized) for 90% of calls. This is broken down as follows:

One (1) incident commander.

One (1) on the primary supply line and hydrant.

Four (4) to handle the primary and backup attack lines.

Two (2) operating in support of the attack lines, performing forcible entry.

Two (2) assigned to victim search and rescue.

Two (2) assigned to ventilation.

One (1) assigned to operate the aerial device.

Two (2) to establish an initial rapid intervention team.

- If an incident is determined to require additional resources, the fire department should have as an objective the ability to respond with:

Additional units as needed (through its own resources or via automatic and mutual aid).

Assignment of two (2) additional personnel to the rapid intervention team.

Assignment of one (1) as an incident safety officer.

Note that the four (4) person companies discussed in some areas of NFPA 1710 are not maintained in the description of primary tasks to be accomplished on the fire ground – recognition that the requirements of the response in the field are dynamic and do not fit neatly into size and shape of any particular response configuration. These objectives apply to the initial and follow-up response for reported structure fires. The document does not suggest that this response be mounted for all incidents. Therefore, many agencies apply the approach that the key is the development of an effective response force rather than requiring a minimum of four (4) personnel on any single piece of apparatus.

The Center for Public Safety Excellence uses a population and density component to determine what the performance of the fire department should be to meet best practices and does not require a set number of personnel per piece of apparatus, but rather that an effective response force can be delivered to an emergency scene. For the purposes of CPSE, Cooper City would be considered an urban fire department. An urban setting is defined as a population of 30,000 and/or a population density of 2,000 or more people per square mile. CPSE also gives a community a range of acceptable performance standards from “Baseline”, minimally accepted performance to “Benchmark”, fully compliant with best practices. CPSE sets the following performance standards for an urban fire department:

<b>Alarm Handling:</b> (All Categories)	Baseline 90 seconds 90% of the time Benchmark 60 seconds 90% of the time
<b>Turnout:</b> (All Categories)	Baseline 90 seconds 90% of the time Benchmark 60 seconds 90% of the time

**Travel Time:**

(Urban)

Baseline 5 minutes 12 seconds 90% of the time

Benchmark 4 minutes 90% of the time

**Balance of First Alarm:**

Baseline 10 minutes 24 seconds 90% of the time

Benchmark 8 minutes 90% of the time

**Comparison of NFPA and CPSE Performance Objectives**

Performance Objective	NFPA 1710 – 2010 (90%)	CPSE (90%)
Call processing (dispatch) time/ call answered to units dispatched	• 60 seconds	• 60 seconds (Benchmark) • 90 seconds (Baseline)
Turnout Time (units en-route)/ unit dispatched to time en-route to the emergency.	• 80 seconds	• 80 seconds (Benchmark) Fire • 60 seconds (Benchmark) EMS • 90 seconds (Baseline) Fire & EMS
Travel time/time en-route until arrival at emergency scene.	<ul style="list-style-type: none"> <li>• Four (4) minutes for first unit/ Fire</li> <li>• Eight (8) minutes for first alarm/fire assignment.</li> <li>• Four (4) minutes first responder/EMS</li> <li>• Eight (8) minutes ALS unit/EMS</li> </ul>	<b>Urban (2,000+ per square mile)</b> <ul style="list-style-type: none"> <li>• Four (4) minutes for first unit (Benchmark)</li> <li>• Eight (8) minutes for second unit/first alarm assignment</li> <li>• 5:12 for first unit (Baseline)</li> <li>• 10:24 for second unit/first alarm assignment (Baseline)</li> </ul>

**2. Determining Appropriate Staffing Levels for Fire Rescue.**

Staffing for fire and rescue services is dependent on deploying an effective response force to mitigate emergency calls. The Center for Public Safety Excellence has a matrix to determine the effective response force on structure fires for various risk types as shown below:

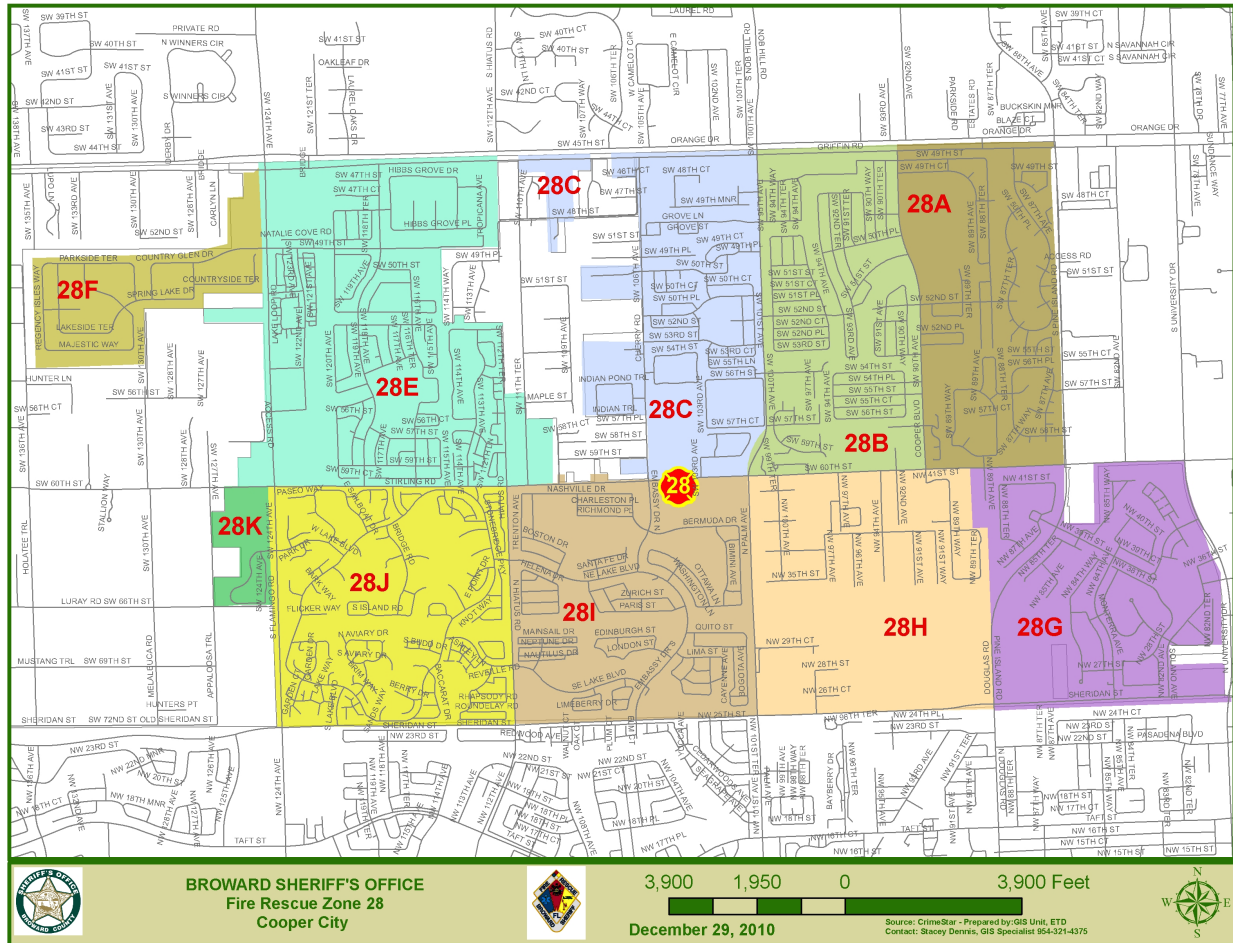
Level of Risk by Task				
Critical Task	Maximum	High	Moderate	Low
Attack Line	4	4	4	2
Search and Rescue	4	2	2	0
Ventilation	4	2	2	0
Backup Line	2	2	2	2
Rapid Intervention	2	2	0	0
Pump Operator	1	1	1	1
Water Supply	*1	*1	*1	1*
Support (Utilities)	*1	*1	*1	*1
Command	1	1	1	1
Safety Officer	1	1	1	1
Salvage/Overhaul	2	0	0	0
Command Aid	1	1	0	0
Operations Chief	1	1	0	0
Logistics	1	0	0	0
Planning	1	0	0	0
Staging Officer	1	1	0	0
Rehabilitation	1	1	0	0
Division Supervisors	2	1	0	0
High-rise Evacuation	10	0	0	0
Stairwell Support	10	0	0	0
<b>Total Personnel</b>	<b>50 - 51</b>	<b>21 - 22</b>	<b>14 - 15</b>	<b>8 - 9</b>

The majority of occupancy risks in Cooper City fall into the moderate category and require 14 – 15 personnel to mitigate, but there are commercial occupancies that will fall into the high-risk category. That is why the automatic aid agreements currently in place, as shown in Appendix B, are important to maintain, as the current staffing of 9 personnel per day requires additional resources to be dispatched to any structure fires in the City. The BSO has a response plan to ensure all residential and commercial fires receive an adequate response as shown in the descriptive profile.

### 3. The Current Response Zones and Call Demand.

Cooper City Fire Rescue has 10 response zones in the City for the purposes of Fire Rescue response and performance tracking. The map on the following page shows the response areas for Station 28 in Cooper City.

#### Cooper City Fire Rescue Response Zones



The following table illustrates the call demand for each response area in FY 2015:

**Number of Incidents Per Response Zone – FY 2015**

<b>Response Zone</b>	<b>Number of Incidents</b>	<b>Avg. Calls / Day</b>	<b>%</b>
28A	265	0.73	10.1%
28B	430	1.18	16.4%
28C	293	0.80	11.2%
28E	478	1.31	18.2%
28F	39	0.11	1.5%
28G	180	0.49	6.9%
28H	207	0.57	7.9%
28I	375	1.02	14.3%
28J	321	0.88	12.3%
28K	22	0.06	0.8%
Blank/Other	10		0.4%
<b>Total</b>	<b>2620</b>	<b>7.18</b>	<b>100%</b>

As shown above, Cooper City Fire Rescue responds to approximately 7 calls per day from Station 28. Zones 28B, 28I and 28J are the busiest zones in terms of emergency calls for service for Cooper City Fire Rescue, accounting for approximately 49% of the emergency call demand for the City. Zones 28A, 28C and 28J are the next busiest, accounting for approximately 33.5% of the emergency calls for service. The remaining four (4) zones account for approximately 17.5% of the emergency calls for service.

#### **4. The Current Fire Station Location Provides Rapid Response Times to the Central Area of Cooper City.**

As discussed earlier in the report, the BSO has established response time performance standards for an urban fire are in Cooper City. This establishes turnout times of 80 seconds (benchmark) or 90 seconds (baseline) and travel times of 4 minutes (benchmark) or 5 minutes 12 seconds (baseline). In short the performance should be somewhere between the benchmark and baseline performance standards to be credible and within acceptable national standards. Analysis of the fiscal year 2014-15 call data indicated the following performance in Cooper City at the 90<sup>th</sup> percentile for the first due unit.

High Priority Fire Calls				
	Call Processing	Turnout	Travel	Total
<b>Average</b>	1:11	1:49	4:25	7:43
<b>90th Percentile</b>	1:29	3:12	6:38	9:13

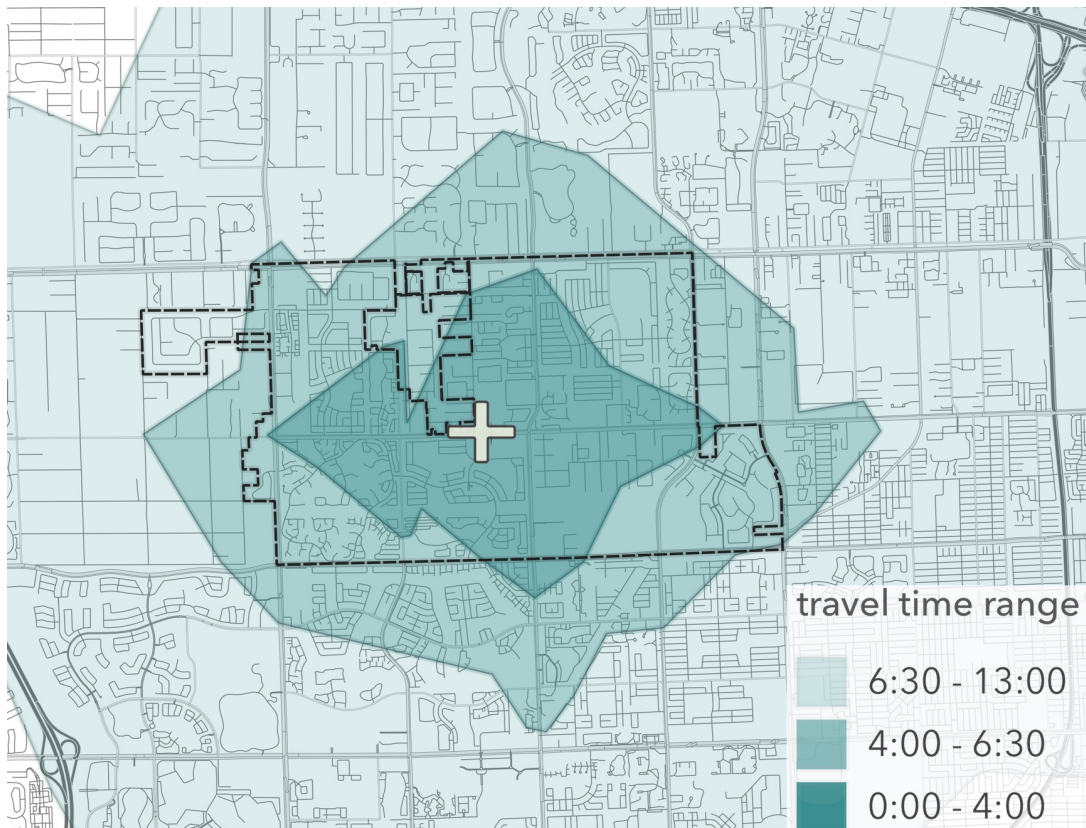
  

High Priority EMS Calls				
	Call Processing	Turnout	Travel	Total
<b>Average</b>	0:28	1:05	4:30	6:03
<b>90th Percentile</b>	0:42	1:51	6:44	8:20

As shown above, the turnout and travel times are above best practices and established performance standards. As development continues in the City these times should be closely monitored as a second station will be required.

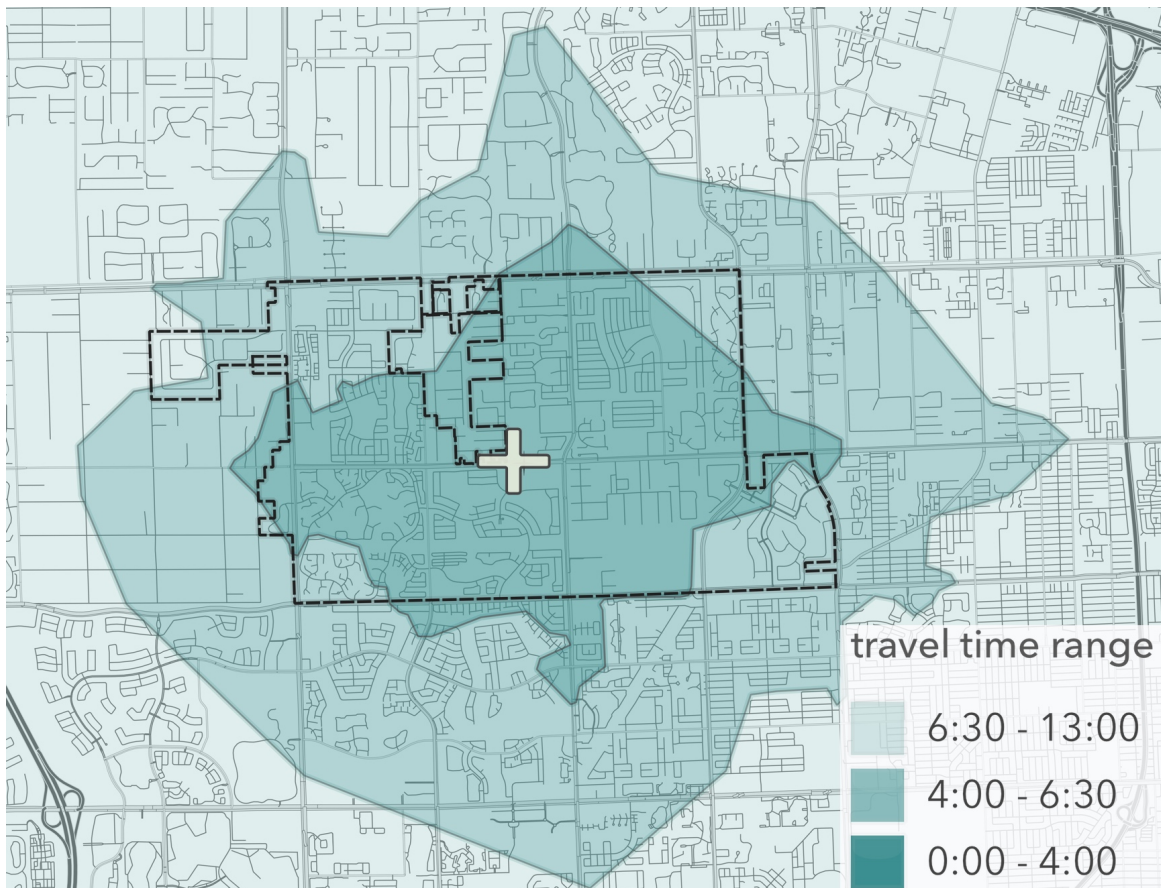
The maps on the following page show the predicted travel times for fire and EMS apparatus from station 28.

### Fire Response Travel Times



As shown above, the current station provides adequate coverage to the majority of the central portion of the City, but the northeast, northwest, southeast and southwestern portions of the City are outside of a 4 minute travel time performance standard.

### EMS Response Travel Time



As was the case with fire response times, EMS travel times are predicted to be within benchmark performance in the central portion of the City, but fall outside a 4 minute travel time performance standard in the northeast, northwest, southeast and southwestern portions of the City. The addition of the second rescue unit being placed in service will not improve this situation as both rescue units will be responding from the

same single location. Only construction of an additional facility will improve travel times to the underserved area of the City.

The response time data and mapping above indicate that Cooper City will need to consider an additional station in the future and that the current centrally located station may not be an ideal location when the second station is built. Currently the City has been allocated land by a developer for the construction of a second station. This land is located off Pine Island Road in response zone 28G. The addition of this station will correct the travel deficiencies for zones 28G and 28A that currently exist, but will not improve travel times for underserved zones such as 28F, 28K, northwest 28E and southwest 28J.

The following table illustrates the trigger points for a City to use when deciding the appropriate timing to add an additional station:

**Trigger Points for Adding Facilities**

Action	Travel Distance	Response Time	Percent of Calls	Building/Risk Inventory
Maintain Status Quo	All risks within locally adopted distance.	First due company is within locally adopted standards.	Low percentage of current out of district calls.	Low local building/risk inventory.
Temporary facilities and minimal staffing	Risks 1.5 to 3.0 miles from existing station.	First due company exceeds five minute travel time 10% of the time, but does not exceed eight minutes.	More than ten percent of calls are out of district.	New area has 25% of the same risk distribution as in initial area of coverage.
Permanent Station Needed	Risk locations exceeding four miles from the station.	First due company exceed five-minute travel time 20 – 25% of the time. Some calls over eight minutes.	More than 20 – 25% of calls in outlying areas.	New area has 35% of same risk distribution as in initial area of coverage.
Permanent Station Essential	Outlying risk locations exceed five miles from station.	First due company exceeds five-minute travel time 30% of the time. Some calls over ten minutes.	More than 30% of calls are in outlying area.	New area has 50% of same risk distribution as in initial area.

As shown above, the addition of a new station should be considered as the service gap is currently higher than 5% of the established travel time target. In the next subsection we will examine the workload on individual apparatus.

**Recommendations:**

- ***The City should develop a station location study to determine if the current station should be relocated after construction of the second station to improve service to the north and southwestern portions of the City.***
- ***The District Chief should actively monitor turnout times and work with personnel to improve their performance related to turnout times.***

**5. Analysis of Apparatus Workload.**

The number of responses by apparatus is a secondary component to determine when additional resources should be added to the response network. The table below

illustrates the number of responses for the apparatus assigned to the Cooper City station.

**Station 28 Apparatus Responses (FY14)**

<b>Unit</b>	<b>Calls</b>
E28	930
E228 (reserve)	453
Q28	156
R28	1,812
R228 (reserve)	1
<b>Total</b>	<b>3,352</b>

As shown above, Rescue 28 is the busiest apparatus, responding to just over 1,800 calls annually or approximately 5 calls per day. The engine is next busiest apparatus, responding to just under 1,400 call annually or approximately 4 calls per day. Finally the quint responds to about 150 calls annually or approximately 0.43 calls per day.

Continuing to utilize the quint as an immediate response apparatus ensures that Cooper City has apparatus available for immediate response during the peak call times when concurrent calls occur that can provide first response EMS services until a mutual aid transport vehicle arrives.

The table on the following page illustrates trigger points to determine when additional apparatus is needed to meet service demands:

**Trigger Points for Adding Apparatus**

Threshold	Possible Solutions
<p>Units within 90% of Threshold values:</p> <p><b>Unit/Station call loading</b></p> <ul style="list-style-type: none"> <li>• Above 3,150 calls per year – single unit</li> <li>• Above 7,900 calls per year – two units</li> <li>• Above 12,600 calls per year – three units</li> <li>• Performance gap rate of 2% or less.</li> </ul>	<ul style="list-style-type: none"> <li>• Change cover status/dynamic deployment</li> <li>• Decrease first-due area</li> <li>• Redeploy adjacent resources</li> <li>• Reconfigure station resources</li> <li>• Eliminate planned out of service time</li> </ul>
<p>Units at Threshold Values:</p> <p><b>Unit/Station call loading</b></p> <ul style="list-style-type: none"> <li>• 3,500 calls per year – single unit</li> <li>• 8,760 calls per year – two units</li> <li>• 14,000 calls per year – three units</li> <li>• Performance gap of 3 – 5%.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase capacity of adjacent units</li> <li>• Increase/decrease mutual aid</li> <li>• Implement peak staffed units</li> <li>• Redeploy resources to problem areas</li> <li>• Relocate existing fire stations</li> </ul>
<p>Units over 110% of Threshold Values:</p> <p><b>Unit/Station call loading</b></p> <ul style="list-style-type: none"> <li>• Above 3,850 calls per year – single unit</li> <li>• Above 9,650 calls per year – two units</li> <li>• Above 15,400 calls per year – three units</li> <li>• Performance gap over 5% of target.</li> </ul>	<ul style="list-style-type: none"> <li>• Add new resources to station</li> <li>• Add new resources to adjacent stations</li> <li>• Add new station(s)</li> </ul>

As shown previously, the current responses numbers for apparatus are well below the 3,100 responses that are typical of when a City should consider adding additional units, therefore no additional apparatus should be considered at this time. It is important to note that future development in the City is expected to include additional single-family homes, apartments and a 126 bed assisted living facility and memory loss care center. It is expected that the additional population and risks brought by this development will increase the number of emergency medical calls for service in the coming years.

**6. An Additional Station Should Be Staffed with a Rescue and a Quint or an Engine Company.**

As discussed earlier, in order to meet established travel time performance standards an additional fire station will be needed in Cooper City. Land has been donated by a developer for the construction of a second station in the City on Pine Island Road in service zone 28G located in the southeastern portion of the City.

As call demand is not the driver for the need for a second station, it should house one of the existing rescue units and either the existing engine or quint to ensure first due response time for both fire and EMS incidents are improved.

This will require no changes to the current staffing plan for fire services. Staffing levels should continue as follows:

**Staffing Plan with Second Station**

Position	Current	w/ 2nd Station	+ / –
District Chief	1	1	0
Fire Inspector	1	1	0
Admin Specialist	1	1	0
Fire Captain	4	4	0
Fire Lieutenant	13	13	0
Driver / Engineer	9	9	0
Firefighter / Paramedic	26	26	0
<b>Total</b>	<b>55</b>	<b>55</b>	<b>0</b>

As shown above, the staffing of a second station with an additional rescue will require no additional personnel assigned to the Fire Department.

***Recommendation:***

***Deploy a rescue and engine or quint at the second station when constructed and maintain existing staffing levels.***

## 7. Analysis of Fire Prevention Staffing.

This chapter of the report focuses on the workload and staffing needs of Fire Prevention.

Fire Prevention is currently staffed with one full time Fire Inspector that handles plan reviews and business inspections in the City. During interviews with BSO administration and Cooper City Fire Rescue District employees there were no issues reported regarding fire prevention to be able to handle the workload associated with performing plan review and inspection responsibilities. It is the practice for the BSO to provide an additional inspector if workload levels increase, specific expertise is required for complex inspections or inspection goals are not being met in a given year.

The following workload data was provided for 2014 regarding plan review and inspections conducted in Cooper City:

<b>Fire Marshal's Office Activity</b>	Plan Review	126
	New Construction Inspection	109
	Annual Fire Inspection	841
	Annual Re-Inspection	98
	Fire Investigations	0
	Fire Safety Education Pres.	13
	<b>Total</b>	<b>1,187</b>

As shown above, there were a total of 939 inspections and re-inspections conducted in 2014 as well as 126 plan reviews.

Industry benchmarks show that a full time inspector can be expected to conduct between 1,200 – 1,500 inspections annually depending on complexity and a full time plan examiner can review approximately 500 plans on average. As neither of these duties equal the need for a full time equivalent, having a single person handle both functions in Cooper City is appropriate and should continue.

***Recommendation:***

***Continue the current staffing of 1 Fire Inspector to handle the plan review and inspection function in Cooper City.***

## ATTACHMENT A – PROFILE OF POLICE SERVICES





This Attachment provides a descriptive profile or summary of the project team's current understanding of the services and organization of law enforcement services provided to Cooper City by the Broward Sheriff's Office (BSO). Information and data contained in these sections have been gathered as a result of the on-site data collection and interviews conducted to this point with BSO and Cooper City staff.

The original descriptive profile document was reviewed with BSO staff and corrected based on those reviews. It should also be noted that workload information which was contained in the original profile and now shown in Chapter 3 of this report are not duplicated in this attachment.

### 1. SNAPSHOT OF COMMUNITY TRENDS

Cooper City has expanded dramatically in recent years, with the population growing by nearly a quarter over the five-year period from 2010 to 2014. Although the majority of this growth occurred in the first three years of this period (as illustrated by the green bars in the chart below), the population continues to increase markedly.

**Population Growth in Cooper City, 2010 - 2014**



Year	Total Pop.	+ / -
2010	28,547	
2011	30,057	
2012	32,426	
2013	34,204	
2014	34,923	
5YR Change	22.3%	
3YR Avg. Growth Rate	4.9%	

As the city's population continues to grow, it is likely that the public safety needs of the community will change as well, influencing both its law enforcement staffing and

resource capability needs.

Despite the significant growth of Cooper City during this time period, crime has not experienced a similar rise. In fact, the number of Part I crimes reported to the FBI from 2009 to 2013 demonstrate large decreases in crime, as shown in the chart below:

**Part I Crimes Reported to the FBI UCR Program, 2009 – 2013**

	2009	2010	2011	2012	2013	
<b>Violent Crime</b>	<b>64</b>	<b>50</b>	<b>41</b>	<b>48</b>	<b>50</b>	
Murder and nonnegligent manslaughter	0	0	0	0	0	
Forcible rape	3	5	1	0	3	
Robbery	14	10	11	9	11	
Aggravated assault	47	35	29	39	36	
<b>Property crime</b>	<b>665</b>	<b>624</b>	<b>650</b>	<b>666</b>	<b>558</b>	
Burglary	123	156	143	120	105	
Larceny-theft	525	452	475	518	436	
Motor vehicle theft	17	16	32	28	17	
Arson	3	7	1	2	0	
Part I Crimes Per 1,000 Pop.	17.4					
5YR Violent Crime Change						▼ -22%
5YR Property Crime Change						▼ -16%

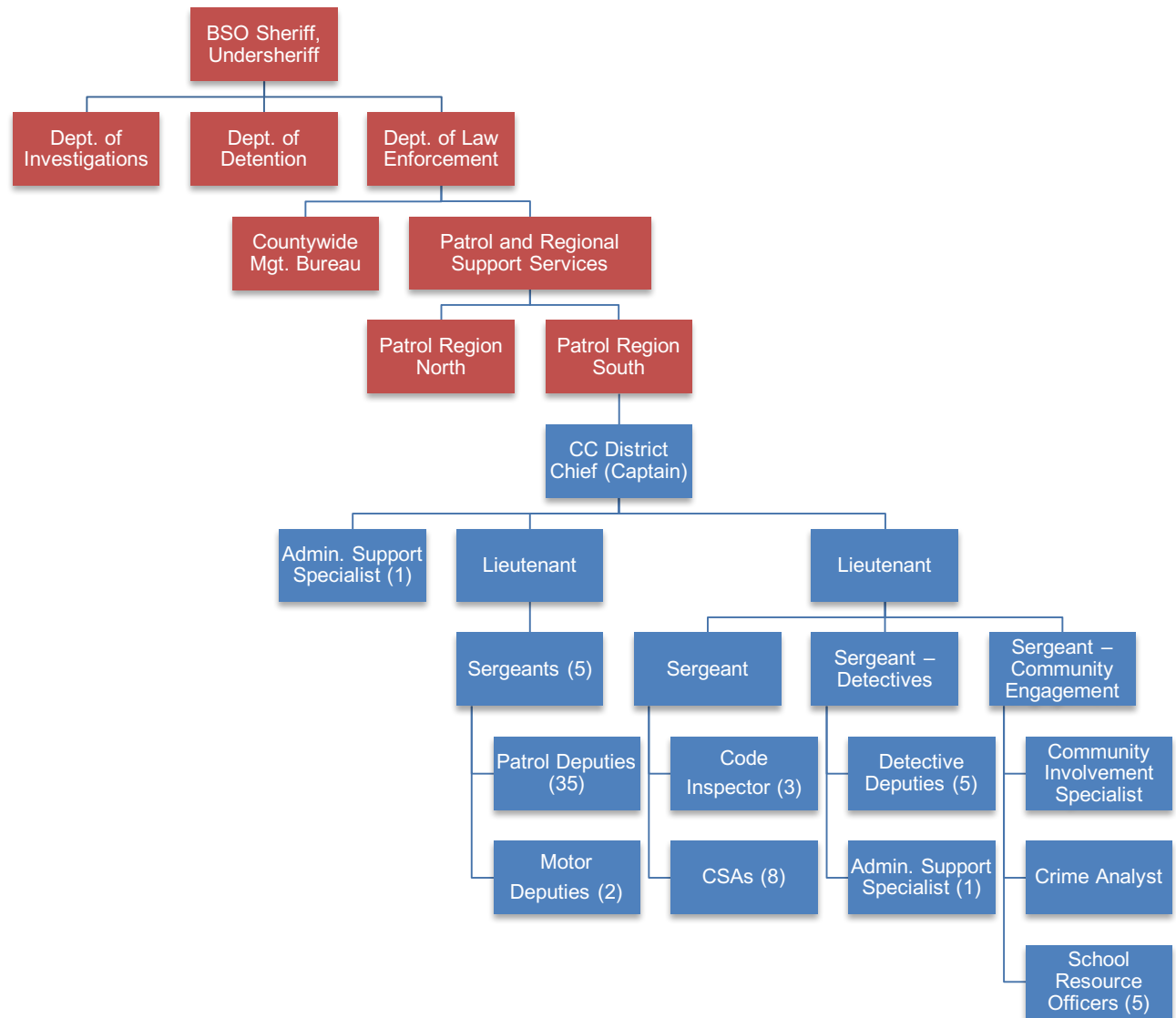
Given the corresponding increase in population during those years, the rate of crime incidents per 1,000 citizens has been reduced by an even greater amount.

## 2. ORGANIZATION AND STAFFING

The following sections outline the organization and staffing of law enforcement services in Cooper City, as well as how the roles of the locally assigned staff are delineated between those of the regional organization.

### (1) Organization of Law Enforcement Services in Cooper City

The following chart reflects the current organization of police services provided to Cooper City by the Broward County Sheriff's Office:



## (2) Division of District and Locally Provided Services

The following table provides an outline of the division of roles and responsibilities between the locally and regionally provided functions in the BSO service delivery model. It is important to note that the table constitutes a ‘working’ general summary of the division of these functions, and should not be considered a comprehensive account of all services provided at either level.

**Division of Roles and Responsibilities Between Local and Regional Services**

Functional Area	Key Roles and Responsibilities
<b>BSO District 16</b> (Local)	<ul style="list-style-type: none"> <li>Provides patrol services throughout Cooper City.</li> <li>Responds in a backup capacity as needed in surrounding BSO districts.</li> <li>Organizes, facilitates, and runs all community policing programs and crime prevention activities.</li> <li>Compiles crime statistics and provides periodic as well as on-demand reports to the City Manager, BSO regional staff, and other groups.</li> <li>Investigates most types of misdemeanor crimes.</li> <li>Enforces Cooper City code ordinances.</li> <li>Provides traffic enforcement services.</li> <li>Assigns dedicated School Resource Officers (SROs) to Cooper City public schools.</li> </ul>
<b>BSO (Regional)</b>	<ul style="list-style-type: none"> <li>Investigates felony crimes, as well as certain misdemeanors.</li> <li>Provides emergency communications/dispatch services.</li> <li>Responsible for major DUI enforcement activities.</li> <li>Organizes and administers task forces to proactively address specific crime patterns.</li> <li>Responsible for on-call specialized response services, such as SWAT,</li> <li>Provides victim advocate and compensation services as outlined by state regulations.</li> <li>Provides a number of centralized support and administrative services, such as human resources, finance, and crime analysis, among many others.</li> </ul>

As the study moves forward, a detailed analysis will be conducted of the value and impact of the additional services that are provided as a result of the contract with the Broward Sheriff’s Office, as opposed to the level and scope of services that would be otherwise be provided.

## (3) Staff Assigned to Cooper City

While the regional services of the Broward Sheriff’s Office include a number of

non-dedicated staff, the contract with Cooper City additionally sets a pre-determined number of staff that are assigned locally to the area. The number of staff assigned by position have been revised multiple times, with the most recent changes being made in 2014.

Currently, the contract calls for the following number of full-time positions to be assigned to Cooper City:

**BSO Law Enforcement Staff Assigned to Cooper City**

<b>Category</b>	<b>#</b>	<b>Classification</b>
<b>Sworn</b>	1	Captain
	2	Lieutenants
	8	Sergeants
	5	Detectives
	35	Deputies (Patrol)
	5	Deputies (SRO)
	2	Deputies (Traffic)
<b>Non-Sworn</b>	8	Community Service Aides
	3	Code Inspectors
	1	Crime Analyst
	1	Sr. Technical Analyst
	1	Community Involvement Spec.
	2	Records Clerks
	2	Administrative Support

Barring any future addendums, these staffing numbers will be current through the remaining duration of the contact between Cooper City and the Broward Sheriff's Office.

## **ATTACHMENT B – PROFILE OF FIRE SERVICES**

This attachment provides summary information regarding the current organization and operation of Fire Services in Cooper City as provided by the Broward County Sheriff Office (BSO), which serves as the context for the compliance review of the current contract for services. Various types of data were collected and developed through interviews with BSO management and personnel, tours of the Fire Department's response area, review of available documents and records, as well as access to computerized records and data sets. This profile provides information that was utilized by the project team to analyze workloads, organization, management, and service levels provided to Cooper City by the BSO. This profile is organized as follows:

- Organization and Staffing.
- Department Budget.
- Emergency Operations Daily Staffing.
- Fire Department Roles and Responsibilities.
- Fire Department Workloads and Response Times.

The original descriptive profile document was reviewed with BSO staff and corrected based on those reviews.

### **1. ORGANIZATION OF FIRE SERVICES IN COOPER CITY**

The City of Cooper City receives fire services through a contract for services with the Broward County Sheriff's Office. This provides staffing of a single station for response to fires, medical emergencies, hazardous materials incidents, natural and man-made disasters, automatic and mutual aid assistance to neighboring departments, and related emergencies in an effort to reduce life and property loss. In addition, the fire

prevention personnel assigned to Cooper City inspect businesses and properties, assist with code enforcement, and conducts public education programs. Fire Department functions are performed with an authorized staffing of 43 full time personnel.

The following table illustrates the number of staff charged to Cooper City for the staffing of fire services according to the current contract with the BSO (4<sup>th</sup> Amendment):

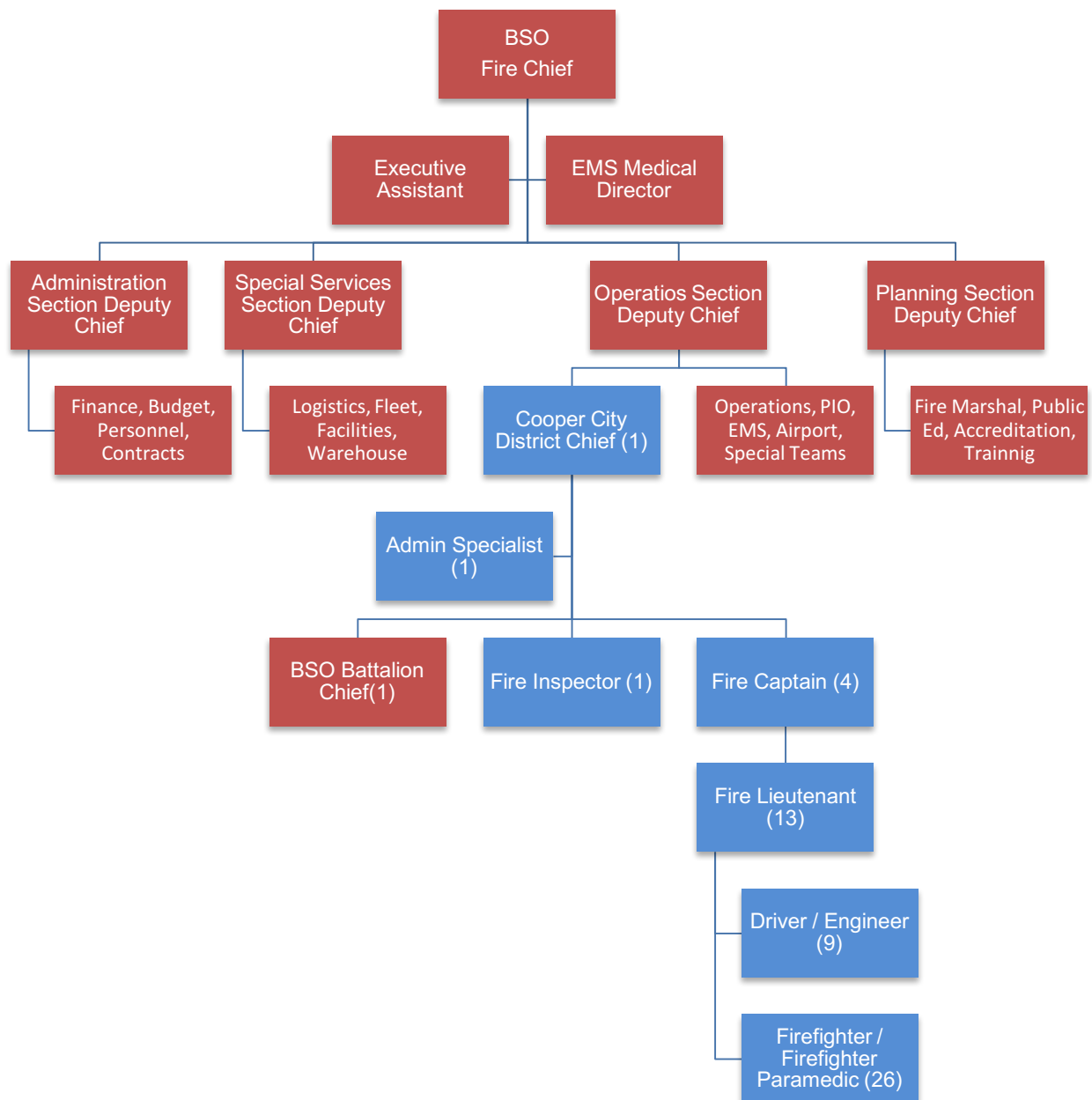
**Current Fire Staffing**

<b>Position Name</b>	<b># of Staff</b>
<b>District Chief</b>	1
<b>Admin Specialist II (Clerical)</b>	1
<b>Captain</b>	4
<b>Lieutenants</b>	13
<b>Driver Engineer</b>	9
<b>Firefighter (incl. paramedics)</b>	26
<b>Fire Inspector</b>	1
<b>Total</b>	<b>55</b>

The BSO maintains a constant level staffing of twelve personnel each shift to provide fire services in Cooper City. The current daily line staffing of each of the three (3) 24-hour shifts includes one (1) Captain, two (3) Lieutenants, two (2) Driver/Engineers and six (6) Firefighter/Firefighter Paramedics. The current points highlight the information above:

- Administrative and Fire Prevention positions are charged at a 1:1 ratio
- Captain positions are charged at a 1.33:1 ratio
- Lieutenants positions are charged at a 1.5:1 ratio
- Driver Engineer positions are charged at 1.5:1 ratio
- Firefighter/Firefighter Paramedic positions are charged at a 1.58:1 ratio
- Cooper City funds 41 line positions to ensure constant staffing of 27 personnel.

The following organization chart illustrates the current organizational structure of the BSO Department of Fire Rescue (BSODFR) and how it supports the operations of fire services in Cooper City:



The next section provides historical and current budget information for fire services provided to Cooper City by the BSO.

## 2. DEPARTMENT BUDGET

The City of Cooper City pays a set amount for fire and rescue services from the BSO. According to the contract annual costs for the budget are capped to a fixed maximum increase of 5%. The following table illustrates the breakdown of FY 2014 through FY 2016 budgets along with the actual costs to provide fire and rescue services in FY 2014:

Expenditure Type	FY14 Actual	FY15 Budget	FY16 Budget
<b>Benefits – Retirement</b>	1,580	1,600	0
<b>Professional Services</b>	5,436	6,000	6,000
<b>Legal Services</b>	17,424	0	40,000
<b>Broward County Sheriff's Office</b>	6,859,278	7,207,566	8,793,800
<b>Supplies Special</b>	2,519	2,000	8,000
<b>Program Expense CERT</b>	0	20,000	12,000
<b>Grant – CERT</b>	7,171	7,000	7,000
<b>Total</b>	<b>6,893,408</b>	<b>7,244,166</b>	<b>8,866,800</b>

As shown above, the annual budgets increased approximately 5% each year for BSO to provide services to Cooper City except in FY 2016 due to the cost of placing the second rescue unit in service and the additional personnel costs associated with staffing that unit.

## 3. OPERATIONS DAILY STAFFING

Fire Services in Cooper City are operated out of a single fire station. This station houses emergency response personnel, administrative personnel and the Fire Inspector. The BSO Fire Administration offices are located in Ft. Lauderdale at 2601 W. Broward Blvd.

The table below shows the location of the Cooper City Fire Station and the response units operating from Station 28:

Station	Address	Equipment Staffed	Daily Staffing
28	10550 Stirling Road, Cooper City	Engine 28	Lieutenant Driver Firefighter
		Quint 28	Captain Driver Firefighter
		Rescue 28	Lieutenant Firefighter Paramedic Firefighter Paramedic
		Rescue 228*	Lieutenant Firefighter Paramedic Firefighter Paramedic

\* Second Rescue (228) added after the initial field work.

As shown above, during our site visits there were three emergency apparatus staffed with a total of nine (9) personnel operating daily from the fire station in Cooper City. A second rescue (228) was placed in service after the fieldwork was conducted and is shown above, which brings the current staffing to 12 personnel staffing 4 units. As part of their contractual relationship with the BSO, Cooper City also gets additional resources dispatched automatically as part of any alarm assignment requiring additional apparatus. This includes

- Battalion Chief on all 1<sup>st</sup> alarm assignments.
- 2 Battalion Chiefs, 2 engines, 2 rescues and 1 ladder on any residential structure fire.
- 2 Battalion Chiefs, 3 engines, 1 ladder, 2 rescues and 1 RIT on commercial structure fires.

Cooper City also benefits from additional regional assets from the BSO Department of Fire and Rescue when an incident larger than the daily staffing can mitigate occurs. Beyond this response the City is part of a countywide mutual aid agreement. This allows certain resources to be requested to assist in mitigating large-

scale emergencies. The following table illustrates the mutual aid resources available to Cooper City through the countywide agreement:

Engine Company	Aerial Apparatus	Rescue Unit	Chief Officer
Davie	Davie	Davie	Davie
Pembroke Pines	Pembroke Pines	Pembroke Pines	Pembroke Pines
Hollywood	Hollywood	Hollywood	Hollywood
Miramar	Miramar	Miramar	Miramar
Plantation	Plantation	Plantation	Plantation
Sunrise	Sunrise	Sunrise	Sunrise
Coral Springs	Coral Springs	Coral Springs	Coral Springs
Ft. Lauderdale	Ft. Lauderdale	Ft. Lauderdale	Ft. Lauderdale
Hallandale	Hallandale	Hallandale	Hallandale
Lauderhill	Lauderhill	Lauderhill	Lauderhill

As shown above, there are ten additional cities available to provide assistance to Cooper City in the event of a large-scale emergency. The following table illustrates the amount of mutual aid given and received in Cooper City since fiscal year 2009:

Year	Mutual Aid Received	Mutual Aid Given
2009	243	137
2010	134	130
2011	148	23
2012	200	41
2013	147	30
2014	121	27

As shown above, in each of the six years, Cooper City received more mutual aid from surrounding agencies than they provided to surrounding agencies.

The next section provides information on the Fire Department roles and responsibilities.

#### 4. FIRE DEPARTMENT ROLES AND RESPONSIBILITIES

The following table describes the key roles and responsibilities of personnel assigned to Cooper City and BSO resources that combine to provide Fire Services in Cooper City.

Functional Area	Key Roles and Responsibilities
<b>Cooper City</b>	<ul style="list-style-type: none"> <li>District Chief is assigned to be the “Fire Chief” for the City.</li> <li>Administrative specialist provides support to the Fire Chief and staff in Cooper City.</li> <li>Fire Investigator assists in plan reviews and conducts required annual fire inspections on commercial occupancies and new construction.</li> <li>Captain is assigned to supervise each fire shift.</li> <li>Lieutenant supervises a company on a specific piece of apparatus.</li> <li>Firefighter/Paramedics respond on each apparatus to mitigate emergencies</li> </ul>
<b>BSODFR Operations Section</b>	<ul style="list-style-type: none"> <li>Provides emergency management services</li> <li>Provides Battalion Chiefs to respond and run command on incidents.</li> <li>Provides hazardous materials team response to incidents.</li> <li>Provides technical rescue team to respond to incidents.</li> <li>Provide personnel to backfill Cooper City when needed.</li> </ul>
<b>BSODFR Administration Section</b>	<ul style="list-style-type: none"> <li>Prepares the annual budget and monitors expenditures.</li> <li>Handles all hiring, promotion and personnel issues in the Department.</li> <li>Serves as the liaison for all matters related to the contract for contract cities.</li> </ul>
<b>BSODFR Special Services Section</b>	<ul style="list-style-type: none"> <li>Coordinates regional logistics for all member agencies.</li> <li>Handles purchasing and maintenance of BSODFR apparatus and fleet.</li> <li>Ensures required periodic maintenance is conducted on all equipment.</li> <li>Operates a regional warehouse to ensure timely delivery of needed supplies and equipment to contract cities.</li> </ul>
<b>BSODFR Planning Section</b>	<ul style="list-style-type: none"> <li>Assists with life safety inspections as needed for contract cities.</li> <li>Assists with plan review when technical expertise is needed.</li> <li>Conducts life safety education programs in Cooper City.</li> <li>Ensures all personnel receive required training.</li> </ul>

#### 5. FIRE DEPARTMENT EMERGENCY RESPONSE AND WORKLOAD

The BSOFRD is an all-hazard response agency. The Department responds to calls for service from one station in Cooper City and serves as the EMS transport

agency for the City. There are also prevention activities and community programs conducted by the Fire Department

The following data was obtained by the agency records management system and shows the workload related to fire services in Cooper City by the BSODFR during the 2014 Fiscal Year (October 1, 2013 – September 30, 2014):

Type	Description	FY14 Total
<b>Alarm Activity</b>	Fire Calls	50
	EMS Calls	1,748
	Hazardous Incident	51
	Service Call	268
	False Call	502
	Weather Related	2
	<b>Total Responses</b>	<b>2621</b>
	<i>Mutual/Auto Aid Given</i>	<i>27*</i>
	<i>EMS Patient Transports</i>	<i>970*</i>
	<i>Mutual/Auto Aide Received</i>	<i>121*</i>
<b>Fire Hydrant</b>	Fire Hydrant Maintenance	1901
	<b>Total</b>	<b>1901</b>
<b>Fire Marshal's Office Activity</b>	Plan Review	126
	New Construction Inspection	109
	Annual Fire Inspection	841
	Annual Re-Inspection	98
	Fire Investigations	0
	Fire Safety Education Pres.	13
	<b>Total</b>	<b>1187</b>
<b>Community Programs</b>	CPR Classes	25
	CPR Participants	106
	Car Seat Program	82
	<b>Total</b>	<b>213</b>

As shown above, the Cooper City units responded to a total of 2,621 unique calls for service during 2014. Personnel also inspected 1,901 fire hydrants, conducted 1,187

fire prevention activities and participated in 213 community programs. Approximately 67% of the call responses were emergency medical calls. This incident response information is used by the project team as a basis for further analysis to determine the effectiveness of Cooper City fire personnel to place units on scene at emergency calls for service. The data indicates that the Cooper City station typically responds to approximately 7 calls for service per day. It is important to note that specific types of emergency calls require more than one apparatus to respond in order to provide the appropriate level of service required to mitigate the incident.

The following tables illustrate the response time performance for high priority fire calls and EMS calls with injuries or illness:

High Priority Fire Calls				
	Call Processing	Turnout	Travel	Total
<b>Average</b>	1:11	1:49	4:25	7:43
<b>90th Percentile</b>	1:29	3:12	6:38	9:13

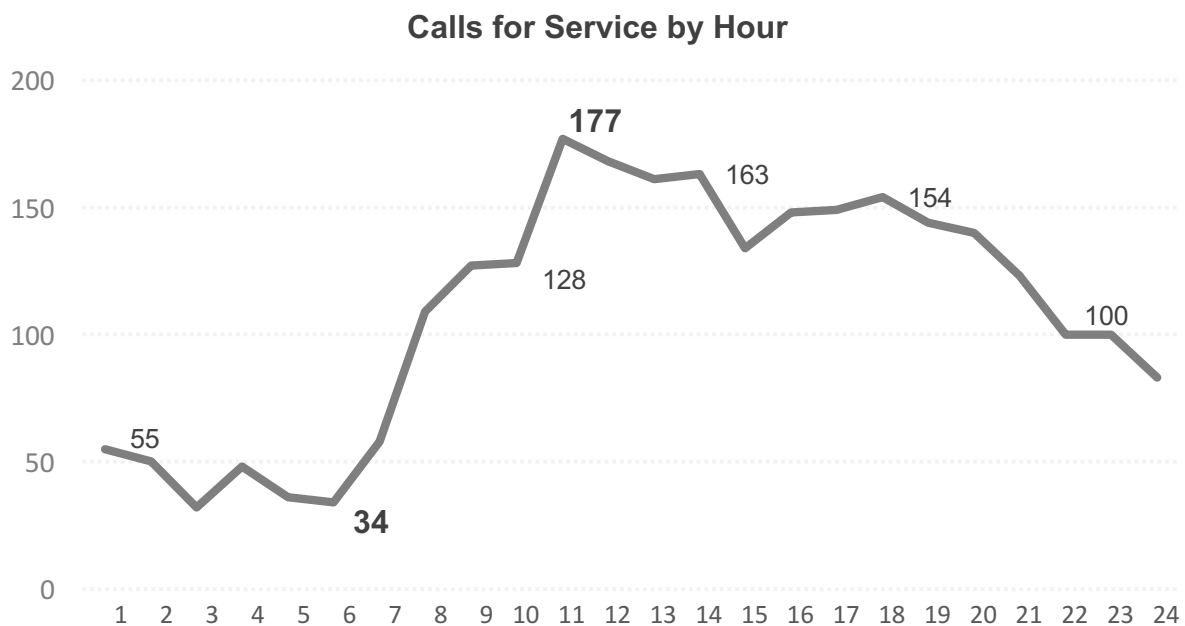
High Priority EMS Calls				
	Call Processing	Turnout	Travel	Total
<b>Average</b>	0:28	1:05	4:30	6:03
<b>90th Percentile</b>	0:42	1:51	6:44	8:20

As shown above, the call processing time (call received until units notified) averages 1 minute 11 seconds for fire calls and 28 seconds for EMS calls, turnout time (unit notification unit en-route) averages 1 minute 49 seconds for fire calls and 1 minute 05 seconds for EMS calls and travel time (en-route to arrival) averages 4 minutes 25 seconds for fire calls and 4 minutes 30 seconds for EMS calls.

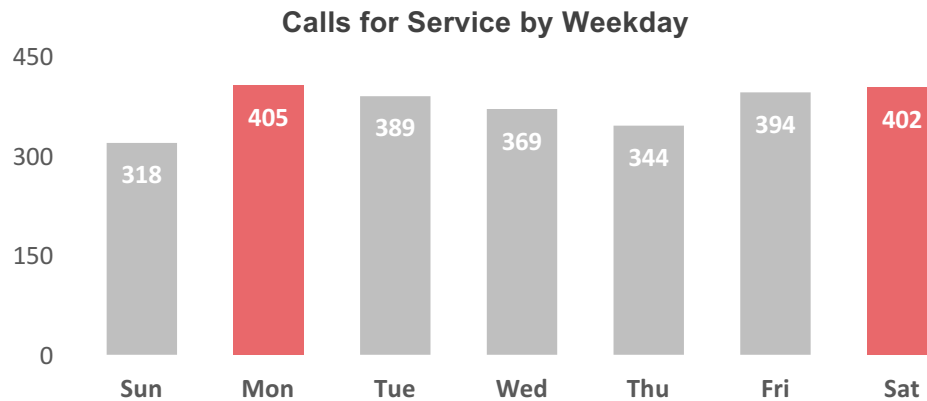
When the performance standard is held to the 90<sup>th</sup> percentile, indicating how well the agency performs 90% of the time the following points are noted:

- Call processing time for fire calls is 1 minute 29 seconds.
- Call processing time for EMS calls is 42 seconds.
- Turnout time for fire calls is 3 minutes and 12 seconds.
- Turnout time for EMS calls is 1 minute 51 seconds.
- Travel time is 6 minutes 38 seconds for fire calls.
- Travel time is 6 minutes 44 seconds for EMS calls.
- Total response time is 9 minutes 13 seconds for fire calls.
- Total response time is 8 minutes 20 seconds for EMS calls.

The following chart shows the breakdown of calls by hour of day in FY 2014 for the Cooper City Fire Station:



As shown above, the hours between 10:00 a.m. and 10:00 p.m. are the busiest hours of the day with peak call demand between 10:00 and 11:00 a.m. 2:00 a.m. to 7:00 a.m. is the slowest period of the day. The next chart illustrates the “in jurisdiction” calls by day of week:



As shown above, the Cooper City Fire resources are busiest on Monday, responding to 15.4% of calls, and slowest on Sunday when 12.1% of calls occur.

The following table shows the apparatus responses to emergency calls responded to by the Cooper City units during FY 2014 for both in and out of jurisdiction calls:

**Station 28 Apparatus Responses (FY14)**

Unit	Calls
E28	930
E228	453
Q28	156
R28	1,812
R228	1
<b>Total</b>	<b>3,352</b>

As shown, the emergency transport units are the busiest response apparatus, followed by the engine companies and then truck companies. Rescue 28 is overall the busiest apparatus, responding to 1,812 calls for service in FY 2014 or an average of approximately five (5) calls per day. In total there are approximately 9 unit responses on average per day to the seven (7) incidents or an average of 1.28 units responding to each emergency call.

The next section of the profile examines training activity in the Fire Department.

## 8. TRAINING ACTIVITY

Personnel receive training from the BSODFR Training Division, which is responsible for the training of all personnel in the BSODFR. Training is provided in both an internet platform as well as in classroom and hands on formats. For training requiring classroom attendance or located in areas outside Cooper City, the BSODFR backfills the Cooper City fire station to ensure immediate response capabilities to emergency calls for service.

During FY 2014 Cooper City personnel received a total of 14,487 hours of training. The following table illustrates the training provided in FY 2014 to Cooper City personnel:

**Training by Class Type – FY 2014**

<b>Training Type</b>	<b>Hours</b>	<b>%</b>
Air Boat	2	0.0%
Airport Rescue and Fire Fighting (ARFF)	2	0.0%
EMS Classes	23	0.2%
EMS Training	800	5.5%
FLUSAR	10	0.1%
Hazardous Materials	34	0.2%
Hazmat Task book FL S.E.R.C	13	0.1%
ISO: Company Training, NFPA 1001	6,648	45.9%
ISO: Driver/Operator Training, NFPA 1002	1,847	12.7%
ISO: Hazardous Materials NFPA 472	33	0.2%
ISO: Multi - Company Training	213	1.5%
ISO: New Driver/Operator Training, NFPA 1002	9	0.1%
ISO: Officer Training NFPA 1021	2,350	16.2%
ISO: Pre-Fire Planning Inspections, NFPA 1620	19	0.1%
NIMS	105	0.7%
Seaport Training	9	0.1%
Standard Operating Guidelines	1,703	11.8%
Technical Rescue Team (TRT)	84	0.6%
TS Course	583	4.0%
<b>Total</b>	<b>14,487</b>	<b>100.0%</b>

As shown above personnel in Cooper City received training in a broad spectrum of topics during the fiscal year. The average training received by each person assigned to the Cooper City Fire Station totaled 413 hours in FY 2014 for an average of 34 hours per month or 3.4 hours per shift.