WAKE COUNTY FIRE COMMISSION

Subject: **Agenda for Thursday September 18th, 2014**
Location: **Wake County EMS Training Facility**
Time: **7:00 PM**

- **Meeting Called to Order: Chairman Lucius Jones**
  - Invocation
  - Roll of Members Present
- **Items of Business**
  - Approval of Agenda
  - Adoption of Minutes for July 17, 2014 Regular Meeting
- **Regular Agenda**
  - Consider Approval of Updates to the Fire Commission Rules of Procedures
  - Consider Approval of Support for the Wake County Fire Protection Mutual Aid Agreement
- **Presentation on Development of the Fire Commission Strategic Plan**
- **Presentation on Process / Procedure for Standard of Cover (SOC)**
- **Information Agenda**
  - Fire Tax Financial Report
  - Cost Share Study Update
  - Chair Report
  - Fire Services Director Report
- **Other Business**
- **Public Comments:**
  - Comments from the public will be received at the time appointed by the Chairman of the Fire Commission for 30 minutes maximum time allotted, with a maximum of 3 minutes per person. A signup sheet for those who wish to speak during the public comments section of the meeting is located at the entrance of the meeting room.
- **Adjournment** - Next Meeting November 20, 2014

WAKE COUNTY FIRE COMMISSION
Thursday, July 17, 2014

DRAFT MINUTES

(Audio Replays of the meeting are available upon request)

The Wake County Fire Commission was held on Thursday, July 17, 2014, 7:00 PM, at the Wake County Commons Building, Carya Drive, Raleigh, North Carolina.

CALL MEETING TO ORDER

Meeting was called to order by Fire Commission Chair Lucius Jones.

Members present: Chief Tony Mauldin (South Region), Chief Tim Pope (North Region), Chief Mark Haraway (West Region), Chief Rodney Privette (East Region), Barbara Poole (Citizen Consumer), Billy Myrick (Citizen/Consumer), Bob Stagg (Citizen/Consumer),

Other members present: Chief Chris Perry (East Region Alternate), and Chief Bryant Woodall (West Region Alternate)

The following members were absent: Judge Michael Denning (Citizen/Consumer), Keith Gregory(Citizen/Consumer), Chief Lee price (Firefighter's Association), Chief Ron Early (North Region Alternate), Commissioner Phil Matthews (WC Commissioner), Chief David Price (South Region Alternate), and Paul Coble (WC Commissioner).

County officials and staff present: Fire Services Director Mike Wright, Fire Service Training Director Ricky Dorsey, Emergency Management Director Josh Creighton, Charles Ottaway WC1, Emergency Services Manager Demetric Potts and Sr. Accounting Tech Fire Services Priti Amin.

Mr. Billy Myrick gave an invocation.

ITEMS OF BUSINESS

APPROVAL OF AGENDA

Upon motion of Billy Myrick and second by Bob Stagg, the Fire Commission unanimously approved the Agenda.

ADOPTION OF MINUTES For MARCH 20, 2014

Upon motion of Billy Myrick and second by Bob Stagg, the Fire Commission unanimously approved the minutes from the March 20, 2014 meeting.

ADOPTION OF MINUTES For MAY 01, 2014

Upon motion of Chief Mauldin and second by Billy Myrick, the Fire Commission unanimously approved the minutes of May 1, 2014 meeting.

REGULAR AGENDA

CONSIDERATION OF RECOMMENDED FIRE COMMISSION STANDING COMMITTEE REALIGNMENT

Fire Service Director Mike Wright opened the floor stating that the item for consideration and approval was the recommended Fire Commission Standing Committee realignment that was presented and discussed at Board of Directors Outreach Meeting that was held on June 19, 2014, as well as having been presented to the Fire Chiefs. Director Wright stated that this has been circulated heavily since he has gotten here in terms of seeking input. He stated that from a Fire Services Director standpoint he was requesting that the Fire Commission consider realignment of the committees as proposed.

Chair Jones stated that everyone so far has been through this and everyone has recommended that has been exposed, so he stated that he would like to entertain a motion to approve the standing committee realignment.

Upon motion of Bob Stagg, and seconded Chief Haraway, the Fire Commission unanimously approved the recommended standing committee realignment.

CONSIDERATION OF APPROVAL OF RECOMMENDED FIREFIGHTER FIRST RESPONSE AND EMS COOPERATIVE PATIENT CARE POLICY

Fire Service Director Mike Wright stated that this was presented Dr. Myers and himself to the Wake County Association Fire Chiefs on May 8th for their input. He stated that they offered input and suggestions, and their request and input was considered on item 5 in reference in driving the EMS units. Director Wright noted that the document was amended to reflect the Chiefs input and was it was taken back to the Wake County Association Fire Chiefs on July 10, asking for their support and approval and they felt that it was okay to bring it forward to the Fire Commission.

Chair Jones stated that he felt that this issue had been vetted by all parties involved and all were in agreement, so he would like to entertain a motion to approve the recommended Firefighter First Response and EMS Cooperative Patient Care Policy.

Upon motion of Billy Myrick, and seconded Chief Haraway, the Fire Commission unanimously approved the recommended Firefighter First Response and EMS Cooperative Patient Care Policy.

CONSIDERATION OF APPROVAL FACILITIES COMMITTEE FY 2015 RECOMMENDATION FOR PLANNED FACILITY MAINTENANCE, REPAIRS, AND RENOVATION PROJECTS

David Dillon stated that the Facilities Committee met and vetted these items, the 9 needs that will be met this year. He stated that the Committee was able to meet all the requested needs without spending all of the $100,000 funded for the needs. Mr. Dillon requested that the Fire Commission support moving forward with the recommended projects.

Mr. Billy Myrick asked if there was a list of the recommended projects. Mr. Dillon informed Mr. Myrick that the list of projects was on page 18 of the Agenda Packet. Mr. Myrick asked if there was a unanimous vote on the recommended projects. Mr. Dillon stated that the vote was unanimous.

Upon motion of Chief Mauldin, and seconded Billy Myrick, the Fire Commission unanimously approved the recommended planned facility renovation projects.

CONSIDERATION OF REVISION TO THE WAKE COUNTY APPARATUS COMMITTEE POLICIES AND PROCEEDURES.

Director Wright stated that Apparatus Committee Chair Chief Woods was out of state attending to family business so he told him that he would bring this item forward. Director Wright stated that the request is to add a Section 12 to the Apparatus Committee Policy of the Fire Commission. This is basically addressing the use of leased vehicles at a department level and leaving that responsibility to the Department Board of Directors and Town Managers to determine what is appropriate for that use. Director Wright stated that this was taken to the Apparatus Committee for their review and they recommended the change. It was also taken to the Wake County Association of Fire Chiefs on July 10th and they voted to bring it forward to the Fire Commission for support.

Chair Jones asked if everyone along the way has supported this with no opposition. Director Wright responded yes. Mr. Myrick asked if the policy change was stating that the department Board would make a policy on the how their vehicles would be used. Director Wright stated that the intent of it is to allow the Boards who deal with their operational policies the discretion to determine how these apparatus/vehicles will be used.

Mr. Myrick asked if this would be controlled by the County. Director Wright stated that the County would not write the policy. We would say based upon if this was adopted there would be an expectation that a policy would exist that displays good reasonable judgment regarding the use of the apparatus.

Chief Mauldin asked Director Wright if we were just trying to clean up some stuff or was there an issue out there that we were trying to address. Director Wright responded that it was a little bit of both. He stated that the leased vehicle because they are County property there was a question of responsibility on that, and when he has been asked about it his position has been if he was told my his Manager to write a policy on vehicle use he could do that and distribute it

amongst the departments. His position was that he felt it was best to place responsibility on the Board of Directors to determine what they feel is the most appropriate use of apparatus and equipment. This keeps this at an operational level at each department.

Mr. Myrick stated that he didn't have a problem with that at all, but the County in his opinion maybe needs to know a little bit about what everybody is doing, and he thinks that all the stations should be doing something similar, not one department doing something and another department not being to do that same thing. Mr. Myrick stated that he is okay with leaving it up to the Board and so far they have shown good judgment on what they have done with vehicles, he hadn't seen a problem with that, but it is something that he feels that the County should look at every now and then anyway.

Mr. Billy Myrick moved that the Fire Commission accept the policy as presented, the motion was seconded by Chief Pope, and the Fire Commission unanimously approved the recommended revision to apparatus committee policies and procedures.

CONSIDERATION OF REQUEST FOR REPLACEMENT OF DURHAM HIGHWAY FIRE DEPARTMENT STATION 2 APPARATUS

Chief Feely stated that this item was to talk about their station 2 which they have since 1976 and they currently lease that station o the City of Raleigh. Chief Feely stated that they have equipment at that station that they want to get back into the replacement schedule. He shared that this station was a part of their ISO and they share that station with Raleigh Engine 23 Battalion 4, but they still run calls form that particular station. He stated that the 2 units that they have at that station is a 1992 E-One Pumper, and they a 1976 Tanker. Chief Feely stated that the reason why they were there for the 1976 Tanker was because they have had it for a very long time dating back to 2002 and they originally had it on the replacement schedule, and apparently at that time in 2002 it was decided that it was still in good working order so they decided to keep that unit for quite some time beyond that and did not replace it and now it has come time to replace it and they found that it was no longer on the replacement plan. Chief Feely stated that the reason that they wanted to bring that back is because their station 2 is being paid for by the City of Raleigh at no cost to the County, so there is no cost to run from that station because of their lease agreement with them, so they can basically run at no cost at all other than to maintain the vehicles that they have there.

Chief Feely stated that they are requesting that their Engine 2 and Tanker 7 be added to the replacement plan once again and they would replace both units with one replacement Tanker based on the current specification. He says that they can do it with one because they can also station one of their other pumpers at the department as well and be able to run the one new vehicle. Chief Feely stated that they would like to have the opportunity to have those apparatus placed back on the schedule so they could run form that department / location. He stated that it is part of their ISO and it is important that they run from that location and they do run from that location using the vehicles that they have today and they are dated and they just want to get them back on the schedule.

Chair Lucius Jones asked Chief Feely if he was saying that this is actually a Raleigh Fire Station. Chief Feely responded saying that it is a Durham Highway Station that they are sharing and leasing it to the City of Raleigh, so they still have ownership of the station and they lease it to Raleigh for $50,000 a year that they use for cost at the department. He stated that at the same time they have full access to that station and run from that station as the Raleigh Fire does. Chief Feely says that they have done that since 1999 and the contract is good through 2025.

Chair Jones asked if they staffed that station. Chief Feely replied that they do not staff that station. Chair Jones asked if the station was ever used. Chief Feely replied that they do house their 2 vehicles there and in the event that they do get a call any of their volunteers in that area can pull from that station and station and run a truck out of that station. Chief Feely stated that they want to continue to run from that station, but the older vehicles that they have at that station make it difficult. He stated that they need to run from it to maintain the ISO for the citizens that they have in that part of their district.

Chair Jones stated that he certainly is not an expert, but there seems to be a disconnect in that it appears that we have a full time Raleigh Fire Station here and we have fire trucks sitting in their station. He asked Chief Feely where his other station was located. Chief Feely replied that their other station was on Norwood Road. Chair Jones asked Chief Feely if this station was ever on the list to be closed. Chief Feely responded that not to his knowledge. Chair Jones asked if there were full time staff at their other station. Chief Feely responded that yes they do have full time staff at their other station.

Mr. Billy Myrick asked Chief Feely if he knew the history of the Fire Commission and that station. Chief Feely replied no not about that station, he only knew of the history of the 2 trucks that we were talking about here. Mr. Myrick stated that he thinks we need to get the minutes of some meetings, but as he recollects many years ago that station was taken off as a station and not considered to be a station and was a storage place for trucks. He asked if he was incorrect with that now. Chief Feely responded that that may be the case today, but they want to utilize the station and that's what they are asking for and they can run enough people to run trucks from that station and they need to do so because of their ISO. Mr. Myrick stated that Chief Feely is asking to put the apparatus back on the replacement schedule, but the station itself is not in his opinion as he remembers is not an operating station, so to him if we are going to replace apparatus to go into a storage building we need to look at what that station does for his ISO and consider all this at one time and maybe do more studying that what has been brought there tonight.

Chief Tim Pope commented that they should send this back to Director Wright, and have him gather more information and bring it back to the Fire Commission. Chief Tony Mauldin stated that he would like to gather all the facts before they made a recommendation.

Chair Jones requested that Director Wright look into this and research the minutes to see what Commission at that time decided on what they wanted to do. He stated that they would look into it and study it and bring it back at a later time.

Mr. Bob Stagg asked what did they feel would be a reasonable time frame to bring this back for consideration, next Fire Commission. Director Wright stated that he would try his best to bring

it back at the next Fire Commission meeting. Chair Jones stated that Director Wright would look into this and bring it back at the next Fire Commission meeting, and if he needed more time they would allow that.

Mr. Bob Stagg moved to table this item to the next meeting. The motion was seconded by Chief Mauldin, the Fire Commission unanimously approved to table the item.

INFORMATION AGENDA

APPARATUS COMMITEE UPDATE

Chief Chris Perry reported that three tankers purchased in FY 13/14 Apparatus CIP are to be delivered soon. The apparatus committee is exploring the option of a county wide maintenance program using a single outside vendor to help control maintenance cost. The pumper tanker specification bids were open July 6th and will be awarded upon closing of purchasing bid process.

COMPENSATION AND STAFFING COMMITTEE UPDATE (STONY HILL FD REORGANIZATION PROPOSAL

Deputy Chief Tim Herman reported in place of Chief David Price. Stony Hill Fire Department brought forward a proposal to realign the department's organizational structure to better meet their needs and objectives of the fire department. This was being accomplished with no additional tax dollars. The consensus of the Committee was to support the proposal as outlined on page 29.

Billy Myrick called Chief Rich to comment a quick overview of what they had planned about this realignment.

His recommendations were as follows:

The reclassification will involve the following personnel changes. These changes are described in the attached spreadsheet and organizational charts. All proposed changes are within the existing pay bands established in the Wake County Fire Compensation Administrative Guidelines (2006 edition).

- Defer the District Chief's position.
- Defer three (3) Part-time Captain's positions.
- Reclassify three (3) FT Firefighter positions to FT Captain's positions; to be promoted from within our existing full-time staff.
- Reclassify the Volunteer Fire Chief to a part-time Fire Chief's position.

Reclassification and Restructure Benefits:
This reorganization initiative will yield these administrative and operational benefits:
- Overall FTE's will be decreased by 1 (from 10 to 9)
- Achieve improved shift level supervision and management within the 24hr full-time personnel.
- Create enhanced career paths for existing full-time employees, enhancing employee retention.

- Improve overtime funds for FT employees (within appropriation).
- No Fire Tax fund increases in appropriation are required and the initiative fits within the Manager approved FY15 funding model.
- The creation of a more centralized and effective Fire Chief's position.
- The reduction of administrative duplication within the organization.
- Staffing layout will be better aligned for future consolidation efforts.

Proposed Staffing Layout:

Weekdays:

Station #1:	Station #2:
PT Fire Chief	FT Captain (24hr)
PT Captain (10hr)	FT Engineer (24hr)
PT Engineer (10hr)	FT Firefighter (24hr)
PT Firefighter (10hr)	PT Firefighter (10hr)

Weeknights (6pm-6am) and Weekends (6am-6am):

Station #1:	Station #2:
(Vol. Duty Crew)	FT Captain (24hr)
Vol. Engineer	FT Engineer (24hr)
Vol. Firefighter/EMT	FT Firefighter (24hr)
Vol. Firefighter	

(Volunteer personnel will supplement all Weeknights and Weekend staffing via additional response)

Billy Myrick did ask to confirm if the service level will still be equal or better and to that Chief assured that there would be no decrease in the quality of service.

EQUIPMENT COMMITEE UPDATE

Ben Oswald discussed that their equipment committee was currently working to field test and evaluate turnout gear by various manufacturers in order to update the specifications. This evaluation is being done in preparation for the bid process.

He also mentioned that they had bid, ordered and distributed the FY 2014 thermal imaging cameras, and the FY 2014 defibrillators were purchased under the existing Wake County bid.

They meet regularly to discuss sizes and Chief Price continues to serve as Chairman of the equipment committee.

No further comments were made beyond this.

POST INCIDENT REVIEW UPDATE

Chief Ricky Dorsey reported Post Incident review updates that were conducted from July 1, 2013—June 30, 2014. The following summary was provided.

Trending Discussions

1. Rural Water Supply Challenges – large structures in non-hydrated areas

2. Staffing Levels – minimal personnel on scene in the first few minutes of the incidents.
3. Accountability – how to effectively account for personnel
4. Transitional Fire Attack – switching from Defensive Attack to Offensive Attack
5. Following IC Orders – effectively managing all personnel on the incident
6. Good Salvage Operations – property saved due to good salvage work
7. Local Tankers VS Tanker Strike Team – extended travel time for the Tanker Strike Team
8. CAD Unit Recommendations – need solutions to knowing if resources are in service for more effective dispatch
9. Smoking related fires on balconies and decks – more fires originating outside on the deck and balconies of dwellings. Included are multifamily dwellings. Depending on construction dates of multistory apartments, balconies may not be protected by sprinklers and fire may overrun sprinkler systems.

As a result of PIR initiatives, fire fighters are participating in drills and exercise at the training center and take back more information to share with their department. The training center has proven very valuable to all personnel.

Billy Myrick expressed that the overall picture of the training center is being received very well by the county and seems very supportive.

FIRE TAX BUDGET AND FINANCIAL REPORT UPDATE

Demetric Potts presented the Fire Tax Financial Reports on behalf of Mark Matthews.

The FY 2015 Adopted Budget, approved by the Board of Commissioners on June 16, 2014, does not include the 1.6% across-the-board reduction that was in the Recommended Budget. Since FY 2014 dose not finalize till late August or September, true figures will reflect in next meeting.

Please note that based on the FY 2015 Adopted Budget and the revenue and expenditure growth assumptions, the Fire Tax District is no longer financially sustainable for five years in accordance with the Fire Commission's financial policies adopted in 2005. While this policy was suspended on a one-time basis for the adoption of this budget, a significant amount of legwork will be needed in the coming months to develop a FY 2016 budget that is sustainable, meets community service level expectations, and aligns expenditures with revenue. Staff looks forward with working with all of you in the coming months to meet this goal.

He did mention that probably in the next Fire meeting we would have FY 2014 books closed to reflect a clear picture of budget.

Report was attached to present FY 2015 figures.

No one had any questions for Demetric and Billy Myrick appreciated Demetric's job.

Financial Reports Attached:

FY 2014 WAKE COUNTY FIRE TAX DISTRICT OPERATING FINANCIAL REPORT (As of July 11, 2014)

***FY 2014 has not been closed or audited, therefore year end figures are preliminary.**

Appropriation: 5120N2500 Fire Tax District - System

Unit: F250 Fire Tax District System

Revenue Source/ Expenditure Object	Adopted Budget	Amended Budget	PTD Actual	Commitments (excluding pending)	YTD Actual	Total Commitments + YTD	Amended Budget Less YTD Actual	YTD % of Amended Budget	Comments
T127 NC DMV Taxes	0.00	35,000.00	994,616.81	0.00	994,616.81	994,616.81	(959,616.81)	NA	Budgeted within T200
T128 Refunds of NC DMV Taxes	0.00	0.00	(1,650.37)	0.00	(1,650.37)	(1,650.37)	1,650.37	NA	
T200 Special District Taxes	20,712,000.00	20,712,000.00	20,320,895.45	0.00	20,320,895.45	20,320,895.45	391,104.55	98%	
N132 Interest - NCDOT - DMV Taxes	0.00	0.00	255.38	0.00	255.38	255.38	(255.38)	NA	
N140 Market vs Cost Investment Difference	0.00	0.00	16,041.99	0.00	16,041.99	16,041.99	(16,041.99)	NA	
N150 Interest Income/Pooled Funds	15,000.00	15,000.00	18,634.24	0.00	18,634.24	18,634.24	(3,634.24)	124%	
M186 Refund from Tax & Tag Program	0.00	0.00	32,292.39	0.00	32,292.39	32,292.39	(32,292.39)	#DIV/0!	
A370 Appropriated Fund Balance	0.00	34,995.00	0.00	0.00	0.00	0.00	34,995.00	0%	
Total Revenues	**20,727,000**	**20,796,995**	**21,381,086**	**0**	**21,381,086**	**21,381,086**	**(584,091)**	**103%**	

Revenue Source/ Expenditure Object	Adopted Budget	Amended Budget	PTD Actual	Commitments (excluding pending)	YTD Actual	Total Commitments + YTD	Amended Budget Less YTD Actual	YTD % of Amended Budget	Comments
2406 CONTRACTED SERVICES	0.00	34,995.00	26,656.85	36,161.15	26,656.85	62,818.00	(27,823.00)	180%	Fire Training Center and Cost Share Studies
3127 OFFICE SUPPLIES	0.00	0.00	905.91	0.00	905.91	905.91	(905.91)	NA	
3134 OTHER SUPPLIES AND MATERIALS	0.00	0.00	2,026.15	0.00	2,026.15	2,026.15	(2,026.15)	NA	
3601 ELECTRICITY	0.00	0.00	20,968.93	0.00	20,968.93	20,968.93	(20,968.93)	NA	
3606 OTHER UTILITIES	12,500.00	12,500.00	0.00	0.00	0.00	0.00	12,500.00	0%	
3617 DISPATCH SERVICE	182,289.00	182,289.00	170,054.00	0.00	170,054.00	170,054.00	12,235.00	93%	
3714 MAINTENANCE AND REPAIR OF EQUIPMENT	17,665.00	17,665.00	10,797.54	0.00	10,797.54	10,797.54	6,867.46	61%	
4208 CITY OF RALEIGH HAZMAT PROGRAM	89,789.00	89,789.00	89,788.66	0.00	89,788.66	89,788.66	0.34	100%	
4224 NC DEPT OF NRCD - FORESTRY	67,362.00	67,362.00	57,917.31	9,444.69	57,917.31	67,362.00	0.00	100%	
4409 POSTAGE/CHARGES FROM GS	0.00	0.00	75.48	0.00	75.48	75.48	(75.48)	NA	
4428 MISC CHARGES FROM OTHER DEPT/DIV	360,918.00	359,229.00	0.00	0.00	0.00	0.00	359,229.00	0%	Fire Training Center charges not yet posted.
4446 800mhz charges from other dept	125,075.00	125,075.00	125,074.76	0.00	125,074.76	125,074.76	0.24	100%	
4447 CAD charges from other dept	8,663.00	8,663.00	6,342.21	0.00	6,342.21	6,342.21	2,320.79	73%	
4758 MV Tax Collection Costs	0.00	35,000.00	23,931.67	0.00	23,931.67	23,931.67	11,068.33	NA	
8104 CONTINGENCY	76,492.00	76,492.00	0.00	0.00	0.00	0.00	76,492.00	0%	
9103 TRANSFER TO C/P CO CONSTRUCTION FUND	1,350,000.00	1,350,000.00	1,350,000.00	0.00	1,350,000.00	1,350,000.00	0.00	100%	
9109 TRANSFER TO D/S FROM TAX DISTRICT FUND	1,224,000.00	1,224,000.00	1,224,000.00	0.00	1,224,000.00	1,224,000.00	0.00	100%	
Total Expenditures	**3,514,753**	**3,583,059**	**3,108,539**	**45,606**	**3,108,539**	**3,154,145**	**428,914**	**88%**	
Subtotal Unit: F250									
Total Revenues	**20,727,000**	**20,796,995**	**21,381,086**		**21,381,086**	**21,381,086**	**(584,091)**	**102.81**	
Total Expenditures	**3,514,753**	**3,583,059**	**3,108,539**	**45,606**	**3,108,539**	**3,154,145**	**428,914**	**86.76**	

FY 2014 WAKE COUNTY FIRE TAX DISTRICT OPERATING FINANCIAL REPORT (As of July 11, 2014)

Department: 51 Fire and Emergency Management

Unit	Unit Name	Revenue Source/ Expenditure Object	Adopted Budget	Amended Budget	PTD Actual	Commitments (excluding pending)	YTD Actual	Total Commitments + YTD	Amended Budget Less YTD Actual	YTD % of Amended Budget
F251	Apex FD	2406	707,525.0	707,525.0	707,525.0	0.0	707,525.0	707,525.0	(0.0)	100.0
F252	Bay Leaf FD	2406	1,535,189.0	1,535,189.0	1,535,189.0	(0.0)	1,535,189.0	1,535,189.0	0.0	100.0
F253	Cary FD	2406	70,000.0	71,689.0	71,688.3	0.0	71,688.3	71,688.3	0.7	100.0
F254	Duham Highway FD	2406	745,314.0	745,314.0	745,314.0	0.0	745,314.0	745,314.0	0.0	100.0
F255	Eastern Wake FD	2406	1,638,034.0	1,638,034.0	1,633,070.3	0.0	1,633,070.3	1,633,070.3	4,963.7	99.7
F256	Fairview FD	2406	1,141,926.0	1,141,926.0	1,141,926.0	0.0	1,141,926.0	1,141,926.0	0.0	100.0
F258	Fuquay Varina FD	2406	1,389,098.0	1,389,098.0	1,389,098.0	(0.0)	1,389,098.0	1,389,098.0	0.0	100.0
F259	Garner FD	2406	1,650,766.0	1,650,766.0	1,650,765.0	0.0	1,650,765.0	1,650,765.0	1.0	100.0
F260	Holly Springs FD	2406	422,737.0	422,737.0	422,738.0	0.0	422,738.0	422,738.0	(1.0)	100.0
F261	Hopkins FD	2406	722,842.0	722,842.0	722,842.0	0.0	722,842.0	722,842.0	0.0	100.0
F262	Morrisville FD	2406	794,122.0	794,122.0	794,122.0	(0.0)	794,122.0	794,122.0	0.0	100.0
F264	Rolesville FD	2406	559,803.0	559,803.0	559,803.0	0.0	559,803.0	559,803.0	0.0	100.0
F265	Stony Hill FD	2406	1,007,648.0	1,007,648.0	1,007,648.0	0.0	1,007,648.0	1,007,648.0	(0.0)	100.0
F266	Swift Creek FD	2406	486,939.0	486,939.0	486,939.0	0.0	486,939.0	486,939.0	0.0	100.0
F267	Wake-New Hope FD	2406	1,095,054.0	1,095,054.0	1,095,054.0	0.0	1,095,054.0	1,095,054.0	0.0	100.0
F268	Wake Forest FD	2406	699,366.0	699,366.0	699,366.0	0.0	699,366.0	699,366.0	0.0	100.0
F269	Wendell FD	2406	1,445,902.0	1,445,902.0	1,445,902.0	0.0	1,445,902.0	1,445,902.0	0.0	100.0
F270	Western Wake FD	2406	566,089.0	566,089.0	566,089.0	(0.0)	566,089.0	566,089.0	0.0	100.0
F271	Zebulon FD	2406	533,893.0	533,893.0	533,893.0	0.0	533,893.0	533,893.0	0.0	100.0

FY 2015 WAKE COUNTY FIRE TAX DISTRICT OPERATING FINANCIAL REPORT (As of July 11, 2014)

Appropriation: 5120N2500 Fire Tax District - System

Unit: F250 Fire Tax District System

Revenue Source/ Expenditure Object	Adopted Budget	Amended Budget	PTD Actual	Commitments (excluding pending)	YTD Actual	Total Commitments + YTD	Amended Budget Less YTD Actual	YTD % of Amended Budget	Comments
T200 Special District Taxes	20,935,000.00	20,935,000.00	46,901.05	0.00	46,901.05	46,901.05	20,888,098.95	0%	Includes DMV Funding.
N150 Interest Income/Pooled Funds	15,000.00	15,000.00	0.00	0.00	0.00	0.00	15,000.00	0%	
A370 Appropriated Fund Balance	353,000.00	353,000.00	0.00	0.00	0.00	0.00	353,000.00	0%	
Total Revenues	**21,303,000**	**21,303,000**	**46,901**	**0**	**46,901**	**46,901**	**21,256,099**	**0%**	

Revenue Source/ Expenditure Object	Adopted Budget	Amended Budget	PTD Actual	Commitments (excluding pending)	YTD Actual	Total Commitments + YTD	Amended Budget Less YTD Actual	YTD % of Amended Budget	Comments
3617 DISPATCH SERVICE	187,857.00	187,857.00	46,964.50	140,892.50	46,964.50	187,857.00	0.00	100%	
3714 MAINTENANCE AND REPAIR OF EQUIPMENT	17,832.00	17,832.00	187.50	0.00	187.50	187.50	17,644.50	1%	
4208 CITY OF RALEIGH HAZMAT PROGRAM	87,595.00	87,595.00	0.00	87,594.73	0.00	87,594.73	0.27	100%	
4224 NC DEPT OF NRCD - FORESTRY	80,025.00	80,025.00	0.00	0.00	0.00	0.00	80,025.00	0%	
4428 MISC CHARGES FROM OTHER DEPT/DIV	358,695.00	358,695.00	0.00	0.00	0.00	0.00	358,695.00	0%	
4446 800mhz charges from other dept	129,366.00	129,366.00	0.00	0.00	0.00	0.00	129,366.00	0%	
4447 CAD charges from other dept	9,954.00	9,954.00	0.00	0.00	0.00	0.00	9,954.00	0%	
4460 GSA Utilities - Electric	18,912.00	18,912.00	0.00	0.00	0.00	0.00	18,912.00	0%	
4758 MV Tax Collection Costs	50,000.00	50,000.00	0.00	0.00	0.00	0.00	50,000.00	0%	
8104 CONTINGENCY	16,162.00	16,162.00	0.00	0.00	0.00	0.00	16,162.00	0%	
9103 TRANSFER TO C/P CO CONSTRUCTION FUND	1,284,000.00	1,284,000.00	0.00	0.00	0.00	0.00	1,284,000.00	0%	
9109 TRANSFER TO D/S FROM TAX DISTRICT FUND	1,407,000.00	1,407,000.00	0.00	0.00	0.00	0.00	1,407,000.00	0%	
Total Expenditures	**3,647,398**	**3,647,398**	**47,152**	**228,487**	**47,152**	**275,639**	**3,371,759**	**8%**	
Subtotal Unit: F250									
Total Revenues	**21,303,000**	**21,303,000**	**46,901**		**46,901**	**46,901**	**21,256,099**	**0.22**	
Total Expenditures	**3,647,398**	**3,647,398**	**47,152**	**228,487**	**47,152**	**275,639**	**3,371,759**	**1.29**	

FY 2015 WAKE COUNTY FIRE TAX DISTRICT OPERATING FINANCIAL REPORT (As of July 11, 2014)

Department: 51 Fire and Emergency Management

Unit	Unit Name	Revenue Source/ Expenditure Object	Adopted Budget	Amended Budget	PTD Actual	Commitments (excluding pending)	YTD Actual	Total Commitments + YTD	Amended Budget Less YTD Actual	YTD % of Amended Budget
F251	Apex FD	2406 CONTRACTED	717,851.00	717,851.00	59,820.92	658,030.08	59,820.92	717,851.00	0.00	8.33
F252	Bay Leaf FD	2406 CONTRACTED	1,568,390.00	1,568,390.00	157,686.75	1,410,703.25	157,686.75	1,568,390.00	0.00	10.05
F253	Cary FD	2406 CONTRACTED	74,765.00	74,765.00	0.00	0.00	0.00	0.00	74,765.00	0.00
F254	Duham Highway FD	2406 CONTRACTED	755,394.00	755,394.00	62,949.50	692,444.50	62,949.50	755,394.00	0.00	8.33
F255	Eastern Wake FD	2406 CONTRACTED	1,555,048.00	1,555,048.00	127,700.58	0.00	127,700.58	127,700.58	1,427,347.42	8.21
F256	Fairview FD	2406 CONTRACTED	1,174,766.00	1,174,766.00	97,897.17	1,076,868.83	97,897.17	1,174,766.00	0.00	8.33
F258	Fuquay Varina FD	2406 CONTRACTED	1,421,823.00	1,421,823.00	118,485.25	1,303,337.75	118,485.25	1,421,823.00	0.00	8.33
F259	Garner FD	2406 CONTRACTED	1,689,738.00	1,689,738.00	140,811.50	1,548,926.50	140,811.50	1,689,738.00	0.00	8.33
F260	Holly Springs FD	2406 CONTRACTED	585,277.00	585,277.00	48,773.08	536,503.92	48,773.08	585,277.00	0.00	8.33
F261	Hopkins FD	2406 CONTRACTED	752,967.00	752,967.00	62,747.25	690,219.75	62,747.25	752,967.00	0.00	8.33
F262	Morrisville FD	2406 CONTRACTED	831,306.00	831,306.00	69,275.50	762,030.50	69,275.50	831,306.00	0.00	8.33
F264	Rolesville FD	2406 CONTRACTED	726,592.00	726,592.00	60,549.33	0.00	60,549.33	60,549.33	666,042.67	8.33
F265	Stony Hill FD	2406 CONTRACTED	1,004,926.00	1,004,926.00	109,465.50	0.00	109,465.50	109,465.50	895,460.50	10.89
F266	Swift Creek FD	2406 CONTRACTED	489,060.00	489,060.00	37,005.00	0.00	37,005.00	37,005.00	452,055.00	7.57
F267	Wake-New Hope FD	2406 CONTRACTED	1,116,231.00	1,116,231.00	93,019.25	0.00	93,019.25	93,019.25	1,023,211.75	8.33
F268	Wake Forest FD	2406 CONTRACTED	697,597.00	697,597.00	58,133.08	0.00	58,133.08	58,133.08	639,463.92	8.33
F269	Wendell FD	2406 CONTRACTED	1,425,792.00	1,425,792.00	118,816.00	0.00	118,816.00	118,816.00	1,306,976.00	8.33
F270	Western Wake FD	2406 CONTRACTED	524,834.00	524,834.00	43,736.17	0.00	43,736.17	43,736.17	481,097.83	8.33
F271	Zebulon FD	2406 CONTRACTED	543,245.00	543,245.00	45,270.42	497,974.58	45,270.42	543,245.00	0.00	8.33

Fund: 4400 Fire CIP

Department 84 Fire And Rescue CIP

Division 8420 Fire Facilities

Unit	Unit Name	Appropriation Unit	Budgeted Revenues	Actual Revenues to Date	Revenues (Over) / Under Budget	Current Expenditure Budget	Actual Expenses to Date	Commitments	Pending Expenses	Actual Expenses to Date with Commitments and Pending	Remaining Expenditure Budget	Remaining Expenditure Authority (actual balance)	Notes
020F	Fire-Bayleaf #1	8400P0100	$3,948,513.09	$3,948,513.09	$0.00	$3,948,513.09	$3,784,109.75	$5,482.50		$3,789,592.25	$158,920.84	$158,920.84	
026F	Stony Hill Remediation	8420V0100	$784,348.00	$784,348.00	$0.00	$784,348.00	$543,347.87	$12,109.13		$555,457.00	$228,891.00	$228,891.00	
050F	Wendell Falls Station, Fire Tax Portion	8420V0100	$350,000.00	$350,000.00	$0.00	$350,000.00	$2,200.00	($0.00)		$2,200.00	$347,800.00	$347,800.00	
057F	Fire Planned Facility Repairs	8420V0100	$691,230.95	$591,230.95	$100,000.00	$691,230.95	$440,606.41	$35,250.00		$475,856.41	$215,374.54	$115,374.54	
Total Division 8420 Fire Facilities			$5,774,092.04	$5,674,092.04	$100,000.00	$5,774,092.04	$4,770,264.03	$52,841.63		$4,823,105.66	$950,986.38	$850,986.38	

Division 8430 Fire Fighting Equipment

Unit	Unit Name	Appropriation Unit	Budgeted Revenues	Actual Revenues to Date	Revenues (Over) / Under Budget	Current Expenditure Budget	Actual Expenses to Date	Commitments	Pending Expenses	Actual Expenses to Date with Commitments and Pending	Remaining Expenditure Budget	Remaining Expenditure Authority (actual balance)	Notes
041F	CONTINGENCIES & GRANT MATCHES	8400P0100	$131,603.00	$131,603.00	$0.00	$131,603.00	$108,608.54	$0.00		$108,608.54	$22,994.46	$22,994.46	
044F	TURNOUT GEAR	8430V0300	$1,538,000.00	$1,538,000.00	$0.00	$1,538,000.00	$1,285,594.83	$0.00		$1,285,594.83	$252,405.17	$252,405.17	
060F	Fire 800MHZ - Omnilink Upgrade	8430V0300	$259,000.00	$259,000.00	$0.00	$259,000.00	$259,000.00	$0.00		$259,000.00	$0.00	$0.00	Current funding expended. Additional appropriation may be needed for next phase
061F	Fire Air Bottle Replacement	8430V0300	$291,000.00	$206,000.00	$85,000.00	$291,000.00	$6,120.00	$0.00		$6,120.00	$284,880.00	$199,880.00	
062F	Fire Defibrillators	8430V0300	$227,000.00	$116,000.00	$111,000.00	$227,000.00	$63,884.27	$125.36		$64,009.63	$162,990.37	$51,990.37	
063F	Fire Thermal Imaging Cameras	8430V0300	$262,000.00	$262,000.00	$0.00	$262,000.00	$190,160.72	$0.00		$190,160.72	$71,839.28	$71,839.28	
066F	Fire SCBA's	8430V0300	$461,000.00	$461,000.00	$0.00	$461,000.00	$204,411.53	$0.00		$204,411.53	$256,588.47	$256,588.47	
070F	Fire Small Capital - FY14	8430V0300	$150,000.00	$150,000.00	$0.00	$150,000.00	$129,302.74	$0.00		$129,302.74	$20,697.26	$20,697.26	
071F	Fire Small Capital - FY15	8430V0300	$150,000.00	$0.00	$150,000.00	$150,000.00	$0.00	$0.00		$0.00	$150,000.00	$0.00	
Total Division 8430 Fire Fighting Equipment			$3,469,603.00	$3,123,603.00	$346,000.00	$3,469,603.00	$2,247,082.63	$125.36		$2,247,207.99	$1,222,395.01	$876,395.01	

Division 8440 Fire Apparatus

Unit	Unit Name	Appropriation Unit	Budgeted Revenues	Actual Revenues to Date	Revenues (Over) / Under Budget	Current Expenditure Budget	Actual Expenses to Date	Commitments	Pending Expenses	Actual Expenses to Date with Commitments and Pending	Remaining Expenditure Budget	Remaining Expenditure Authority (actual balance)	Notes
054F	General Fire Apparatus	8440V0100	$103,192.82	$64,192.82	$39,000.00	$103,192.82	$1,356.00	$0.00		$1,356.00	$101,836.82	$62,836.82	
056F	Fire Small Vehicles	8440V0100	$431,371.04	$335,243.08	$96,127.96	$431,371.04	$192,496.66	$0.00		$192,496.66	$238,874.38	$142,746.42	
067F	FY13 Large Apparatus - Rural	8440V0100	$991,770.28	$991,770.28	$0.00	$991,770.28	$919,770.28	$0.00		$919,770.28	$72,000.00	$72,000.00	Project will be closed, debt proceeds to be transferred to debt service fund to offset fire debt service, and savings will be moved to uncommitted fund balance
068F	FY13 Large Apparatus - Municipal	8440V0100	$229,897.78	$229,897.78	$0.00	$229,897.78	$149,420.46	$80,477.32		$229,897.78	$0.00	$0.00	Payments competed. Project will be closed
080F	FY14 Large Apparatus - Municipal	8440V0100	$345,000.00	$345,000.00	$0.00	$345,000.00	$0.00	$0.00		$0.00	$345,000.00	$345,000.00	
081F	FY14 Large Apparatus - Rural	8440V0100	$1,587,526.00	$100,526.00	$1,487,000.00	$1,587,526.00	$25,000.00	$1,562,526.00		$1,587,526.00	$0.00	($1,487,000.00)	Debt financing revenue held in 999F for accounting purposes
082F	FY15 Large Apparatus - Municipal	8440V0100	$465,000.00	$0.00	$465,000.00	$465,000.00	$0.00	$0.00		$0.00	$465,000.00	$0.00	
999F	Fire CIP - Installment Proceeds	8440V0100	$0.00	$1,487,000.00	($1,487,000.00)	$0.00	$0.00	$0.00		$0.00	$0.00	$1,487,000.00	Debt funding for FY 2014 Rural Apparatus to be transferred to 081F upon acceptance of apparatus
Total Division 8440 Fire Apparatus			$4,153,757.92	$3,553,629.96	$600,127.96	$4,153,757.92	$1,288,043.40	$1,643,003.32		$2,931,046.72	$1,222,711.20	$622,583.24	

Division 8499 Fire Capital Uncommitted

Unit	Unit Name	Appropriation Unit	Budgeted Revenues	Actual Revenues to Date	Revenues (Over) / Under Budget	Current Expenditure Budget	Actual Expenses to Date	Commitments	Pending Expenses	Actual Expenses to Date with Commitments and Pending	Remaining Expenditure Budget	Remaining Expenditure Authority (actual balance)	Notes
096F	Fire Preexisting Department - Debt Service	8490V0100	$272,000.00	$0.00	$272,000.00	$272,000.00	$85,759.74	$0.00	$185,844.88	$271,604.62	$395.38	($271,604.62)	Departmental preexisting debt service to be paid from CIP in FY 2015
097F	Transfer to Debt Service Fund	8490V0100	$20,904.36	$20,904.36	$0.00	$20,904.36	$20,904.36	$0.00		$20,904.36	$0.00	$0.00	
098F	Garner Station 84 Interlocal Agreement	8490V0100	$120,000.00	$61,000.00	$59,000.00	$120,000.00	$0.00	$0.00		$0.00	$120,000.00	$61,000.00	
099F	Fire Capital Uncommitted	8490V0100	$266,000.00	$2,560,072.54	($2,294,072.54)	$266,000.00	$0.00	$0.00		$0.00	$266,000.00	$2,560,072.54	
Total Division 8499 Fire Capital Uncommitted			$678,904.36	$2,641,976.90	($1,963,072.54)	$678,904.36	$106,664.10	$0.00	$185,844.88	$292,508.98	$386,395.38	$2,349,467.92	
Total Department 84 Fire And Rescue CIP			$14,076,357.32	$14,993,301.90	($916,944.58)	$14,076,357.32	$8,412,054.16	$1,695,970.31	$185,844.88	$10,293,869.35	$3,782,487.97	$4,699,432.55	
Total Fund: 4400 Fire CIP			$14,076,357.32	$14,993,301.90	($916,944.58)	$14,076,357.32	$8,412,054.16	$1,695,970.31	$185,844.88	$10,293,869.35	$3,782,487.97	$4,699,432.55	

COST SHARE STUDY UPDATE

Director Wright reported on behalf of Mark Matthews:

The Cost Share Committee met on July 10, 2014 and agreed on the next steps and anticipated timeline for the remainder of the Cost Share Study process outlined below. Based on the fiscal calendar and the timeline below, a final recommendation should be available for consideration as part of the FY 2016 Budget Process.

- **Late July**: Draft report shared with all eight cost share departments to validate the information included on their respective departments (two week window).
- **Late July/early August**: Staff to compile feedback from cost share departments and share with ESCI and Committee members.
- **Early-Mid August**:
    - ESCI to provide final draft report for presentation to stakeholders.
    - Committee to request special called Fire Commission meeting for the purpose of receiving stakeholder input on Preliminary Cost Share Study and which factors should be incorporated into the final recommended cost share formula.
    - Draft report to be posted online for review three weeks prior to public hearing.
- **Mid-September**: Formal presentation of Cost Share Study and receipt of public/stakeholder input at special called Fire Commission meeting.
- **Early October**: ESCI to share final recommendations and formula with Cost Share Committee for review and feedback.
- **October-early November**: Cost Share Committee to review and validate final recommendations and prepare for November Work session, and consider what recommendations to make to the Fire Commission, County Manager, and Board of Commissioners regarding implementation of a cost share formula.
- **November 10, 2014**: ESCI to present Final Cost Share Study to Wake County Board of Commissioners as part of Work session.
- **November 20, 2014**: Final Cost Share Study and Committee recommendations to be presented to Fire Commission as part of regular meeting.
- **November-May**: Incorporate new cost share formula into FY 2016 County Fire Tax and town recommended budget processes, and update cost share, fire protection and/or interlocal agreements as necessary.

Billy Myrick complimented Director Wright as he liked his upcoming plans.

CHAIR REPORT

None.

FIRE SERVICES DIRECTOR REPORT

Director Wright Board reported:

- BOD Outreach;
  Held Thursday June 19, 2014
  13 Fire Departments are represented
  Members of Fire Commission are represented
  35 attendee's
  The intent is to hold June and January outreach programs. Additional meetings with Fire Department Board of Directors will be offered on an individual department basis in the fall and spring.

  One other important plan is to have:
- Fire Staff Work Sessions
  Scheduled for the 4th Thursday of each month 10:00-11:30
  First one begins August 27 – Stony Hill FD Station # 1
  Locations are being reserved / based upon input – meetings will be held at FD
  Location and dates once confirmed will be emailed to all.

- Fire Training Center Study
  After evaluation by committee and staff – it has been determined the study is not satisfactory. It lacked analysis and supporting data to validate recommendations. It did have value in the work of the study but it fails to meet expectations. Negotiations with the vendor are going on to complete the contract.
  Director Wright recommends establishing Training Committee and jointly with staff completing report or as an option if there is concern for bias; bring in a facilitator to work with the training committee and staff.

OTHER BUSINESS

None.

PUBLIC COMMENTS

Chief Mark Haraway had three items to present:

Chief Rich and Chief Haraway through the Wake County Preparedness Committee area have received MMRS grant money from Emergency Management to get new gas meters that can be used in post structure fire. This project would have cost $ 20000, but since MMRS gave the grant, there was no cost to fire departments.

When incidents happen, most of the time, it exceeds local capability. Storm events, tornados, active shooter, and many other incidents have taken place where even though you want to help, it

is beyond capacity. A good way is to attend training that is offered by Emergency Management which helps to prepare for interoperability when incidents occur. Wake county being one of the largest county, it needs well organized trained staff to execute any incident in proper manner. The training class would allow you to take home very valuable information that one can share with their staff.

On the closing note, Billy Myrick expressed his gratitude towards Wake County Commissioner for their support in eliminating 1.6% reduction. This action reassured the fire service that Wake County Board of Commissioners supported this vital service.

ADJOURNMENT

Being no further business, the meeting was adjourned

Item Title:
Consider Approval of Updates to the Fire Commission Rules of Procedures

Specific Action Requested:
The Fire Commission approves and adopts the revision to the Fire Commission Rules of Procedures Section VIII. Committees, A. with reference to the committee realignment as approved and adopted by the Fire Commission at its July 17, 2014 meeting.

Item Summary:
In order to accommodate the Fire Services work plan and criterion initiatives, the Fire Services Director requested a realignment of the Standing Fire Commission Committees as identified in the Fire Commission Rules of Procedures; section VIII. This realignment was approved at the July 17, 2014 meeting. This update reflects the committee realignment.

Attachments:
1. Fire Commission Rules of Procedure, Section VIII. Committees

VIII. Committees

A. **Establishment and Appointment** - The Fire Commission may establish and appoint members for such standing and ad hoc committees as are required to help carry on the Fire Commission's work. The Fire Commission's standing committees are:

- Budget Committee
- Apparatus Committee
- Facility Committee
- Equipment Committee
- ~~Compensation Committee~~
- ~~Staffing Committee~~
- Staffing & Compensation Committee
- Communications Committee
- Administrative Committee
- Steering Committee
- Training Committee

Item Title:
Consider Approval of Support for the Wake County Fire Protection Mutual Aid Agreement

Specific Action Requested:
The Fire Commission approves support for the Wake County Fire Protection Mutual Aid Agreement, Wake County, North Carolina" dated July 1, 2014, and to further support any action (s) consistent with the terms of such Agreement.

Item Summary:
N.C.G.S. Section 58-83-1 authorizes counties, municipal corporations and fire protection districts to send (or decline to send) firefighters and firefighting equipment beyond the response area they normally serve. As part of every fire protection contract entered with municipal corporations within Wake County and private non-profit corporation fire departments to provide fire protection services, Wake County requires cooperation and participation in the most current Wake County Mutual Aid system plan. The fire departments have previously executed separate mutual aid agreements to fulfill this requirement. The proposed "Fire Protection Mutual Aid Agreement, Wake County, North Carolina" allows for all fire departments to execute a single agreement for better clarity, record keeping, and administration of the fire contract. The term of the mutual aid agreement is from the date of execution through June 30, 2020 and provides for automatic renewal on July 1 of each subsequent year unless terminated by written notice. Any amendments to the agreement must go before the Fire Commission for public discussion and review, and then to the Board of Commissioners for approval.

Attachments:
1. Wake County Fire Protection Mutual Aid Agreement
2. N.C.G.S. Section 58-83-1 – Authority to send firemen and apparatus beyond territorial limits; privileges and immunities.

FIRE PROTECTION MUTUAL AID AGREEMENT
WAKE COUNTY, NORTH CAROLINA

THIS AGREEMENT made and entered into this 1st day of July, 2014, by and between the BAY LEAF VOLUNTEER FIRE DEPARTMENT, INC., DURHAM HIGHWAY FIRE PROTECTION ASSOCIATION, INC., EASTERN WAKE FIRE-RESCUE DEPARTMENT, INC., FAIRVIEW RURAL FIRE DEPARTMENT, INC., GARNER VOLUNTEER FIRE-RESCUE, INC., HOPKINS FIRE DEPARTMENT, INC., ROLESVILLE RURAL FIRE DEPARTMENT, INC., STONY HILL RURAL FIRE DEPARTMENT, INC., SWIFT CREEK VOLUNTEER FIRE DEPARTMENT, INC., TOWN OF CARY, WAKE FOREST FIRE DEPARTMENT, INC., WAKE-NEW HOPE VOLUNTEER FIRE DEPARTMENT INC., WENDELL-HOLMES RURAL FIRE DEPARTMENT, INC., WESTERN WAKE FIRE RESCUE FIRE DEPARTMENT, INC., and the COUNTY OF WAKE.

WITNESSETH:

THAT, WHEREAS, North Carolina General Statutes § 58-83-1 authorizes counties, municipal corporations and fire protection districts to send (or decline to send) firefighters and firefighting equipment beyond the response areas that they normally serve (a practice generally known as "mutual aid"), provides for retention of rights, privileges and immunities enjoyed by firefighters in their response areas when those firefighters respond beyond those response areas, and further provides for retention of rights, privileges and immunities of counties, municipal corporations and fire protection districts enjoyed by those agencies in their response areas when those agencies respond beyond those response areas; and

WHEREAS, it is in the best interests of Wake County, municipal corporations within Wake County and private non-profit corporation fire departments with which Wake County contracts to formalize their commitment to mutual aid in the form of a mutual aid agreement;

NOW, THEREFORE, in consideration of the mutual covenants contained herein by and among the parties hereto, it is hereby agreed as follows:

1. The following definitions are herewith adopted as part of this Agreement:

    a. FIRE CHIEF means the chief operating officer of a lawfully-organized fire department;

    b. FIRE DEPARTMENT means any subdivision of County or municipal government that delivers fire protection services, or a private non-profit corporation that delivers fire protection services within Wake County pursuant to a contract with Wake County;

    c. MEMBER means (and is limited to) a bona fide employee or member in good standing of a subdivision of County or municipal government or

private non-profit corporation fire department that delivers fire protection services, and that is party to this Agreement.

d. FIRE PROTECTION SERVICES includes (but is not limited to) firefighting, hazardous-materials release control, emergency medical event response, technical rescue response (including, but not limited to, structural collapse rescue, confined-space rescue, and water rescue)
and such other emergency response activities that are customarily associated with fire department response, or are otherwise authorized by state law, subject to the limitations contained elsewhere in this Agreement.

e. MUTUAL AID RESPONSE is a response of the personnel and equipment of a fire department party to this Agreement requested by the fire chief of a fire department party to this Agreement, or his or her designee, in command of an emergency response activity, and is in addition to, and does not supercede or void any automatic-aid response.

2. Each fire department party to this Agreement agrees to:

a. Provide for a written standard operating procedure that gives direction to fire department members on how a mutual aid response will be summoned (on the part of a requesting fire department) or undertaken (on the part of a responding fire department;

b. Assume responsibility for implementation and coordination of an incident command system at a mutual aid event that incorporates the operations of responding departments into that system, including delivery of assignments, information and direction to the ranking officer of the responding fire department present at the mutual aid scene;

c. Waive any and all claims of liability against a fire department requesting mutual aid for death or injury of any member, for damage, theft, loss or destruction of any fire department equipment or personal property of fire department members in connection with response to, operation at, and/or return from a mutual aid event;

d. Indemnify and hold harmless any fire department, fire chief or fire department member responding to a request for mutual aid from third-party claims arising from third-party personal injury or property damage in connection with provision of fire protection services at that mutual aid event, or any fire department that elects to respond to a mutual aid request in a manner different from the request, or any fire department that elects not to respond to a mutual aid request because of immediate community protection needs of its own;

e. Waive any and all claims against a fire department requesting mutual aid for any costs incurred in connection with response to, operation at, and/or return from a mutual aid event, including (but not limited to) salaries, reimbursements or other compensation (nominal or otherwise) and costs of apparatus and other equipment operation, except that a responding department that expends materials that, by their nature, are consumed in connection with their intended use (such as firefighting foams and substantially similar extinguishing, foaming, sealing or other agents) in connection with delivery of fire protection services may present to the requesting department an itemized statement of costs for such materials, upon receipt of which such materials shall be paid for by the requesting department;

f. Refrain from undertaking any fire protection service activity, including (but not limited to) technical rescue activities, when the responding department is neither trained nor equipped to undertake such activity, and so advise the requesting department's incident commander upon request for delivery of such service; and

g. Upon request, to furnish to the Wake County Fire Marshal information on fire protection service equipment, capabilities and personnel so that the Fire Marshal may maintain a "mutual aid resource database" for use by all parties to the Agreement.

3. This Agreement shall remain in effect from the date of execution until June 30, 2020, and, thereafter shall renew automatically on July 1 of each subsequent year, except that:

   (a) A party to this Agreement may elect to terminate its participation upon thirty-day written notice, mailed via registered mail-return receipt requested to the Wake County Fire Marshal; or

   (b) A party to this Agreement may propose an amendment to this Agreement, applicable to all parties, to the Wake County Fire Commission for public discussion and review, and for approval by the Wake County Board of Commissioners.

4. Upon initiation of this Agreement, and not less frequently than annually, the Wake County Fire Marshal shall furnish to all parties to this agreement a list of all parties to this Agreement. In the event that a party to this Agreement elects to terminate its participation, the Fire Marshal shall notify all other parties to the Agreement of such action by conventional mail, electronic mail and facsimile as soon as possible after the Fire Marshal's receipt of notice of such termination.

5. Nothing in this Agreement will be deemed to interfere with the right of any party to enter into a mutual aid agreement with a fire department outside of Wake County.

IN WITNESS WHEREOF, the parties have hereunto set their hands, the day and year first written above.

Dated this _____ day of _____, 2014.

WAKE COUNTY

BY: _____
Jim Hartmann or designee
Wake County Manager

BY: _____
Michael B. Wright
Wake County Fire Services Director

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

_____
Finance Director, or designee

This person is responsible for monitoring the contract performance requirement is:

Demetric A. Potts _____ Department Head Initials

BAY LEAF VOLUNTEER FIRE DEPARTMENT, INC.

BY: _____
Hal Atkinson
President, BAY LEAF VOLUNTEER FIRE DEPARTMENT, INC.

Attest:

_____
Robert B. Edmundson
Secretary, BAY LEAF VOLUNTEER FIRE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

DURHAM HIGHWAY FIRE PROTECTION ASSOCIATION, INC.

BY: _____
William B. Patterson, Jr.
President, DURHAM HIGHWAY FIRE PROTECTION ASSOCIATION, INC.

Attest:

_____
Brian N. Polk
Secretary, DURHAM HIGHWAY FIRE PROTECTION ASSOCIATION, INC.

Dated this _____ day of _____, 2014.

EASTERN WAKE FIRE-RESCUE DEPARTMENT, INC.

BY: _____
Troy Mitchell
President, EASTERN WAKE FIRE-RESCUE DEPARTMENT, INC.

Attest:

_____
Deedy Cousins
Secretary, EASTERN WAKE FIRE-RESCUE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

FAIRVIEW RURAL FIRE DEPARTMENT, INC.

BY: _____
Matt Hess
President, FAIRVIEW RURAL FIRE DEPARTMENT, INC.

Attest:

_____
Mark Carver
Secretary, FAIRVIEW RURAL FIRE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

GARNER VOLUNTEER FIRE-RESCUE, INC.

BY: _____
Steve Woodall
President, GARNER VOLUNTEER FIRE-RESCUE, INC.

Attest:

_____
Kenny Walker
Secretary, GARNER VOLUNTEER FIRE-RESCUE, INC.

Dated this _____ day of _____, 2014.

HOPKINS FIRE DEPARTMENT, INC.

BY: _____
David Bradford
President, HOPKINS FIRE DEPARTMENT, INC.

Attest:

_____
Adam Pearce
Secretary, HOPKINS FIRE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

ROLESVILLE RURAL FIRE DEPARTMENT, INC.

BY: _____
Charles Spencer Jones
President, ROLESVILLE RURAL FIRE DEPARTMENT, INC.

Attest:

_____
Frank C. Pearce, Jr.
Secretary, ROLESVILLE RURAL FIRE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

STONY HILL RURAL FIRE DEPARTMENT, INC.

BY: _____
Ty Carpenter
President, STONY HILL RURAL FIRE DEPARTMENT, INC.

Attest:

_____
Sim Wilford
Secretary, STONY HILL RURAL FIRE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

SWIFT CREEK VOLUNTEER FIRE DEPARTMENT, INC.

BY: _____
Luther D. Warner
President, SWIFT CREEK VOLUNTEER FIRE DEPARTMENT, INC.

Attest:

_____
Weston McCorkle
Secretary, SWIFT CREEK VOLUNTEER FIRE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

TOWN OF CARY

BY: _____
Harold Weinbrecht, Jr.
Mayor, TOWN OF CARY

Attest:

_____
Karen C. Gray
Clerk, TOWN OF CARY

Dated this _____ day of _____, 2014.

(SEAL)

WAKE FOREST FIRE DEPARTMENT, INC.

BY: _____
Stanley Denton
President, WAKE FOREST FIRE DEPARTMENT, INC.

Attest:

_____
James Holding
Secretary, WAKE FOREST FIRE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

WAKE NEW-HOPE VOLUNTEER FIRE DEPARTMENT, INC.

BY: _____
Jimmy Massey
President, WAKE NEW-HOPE VOLUNTEER FIRE DEPARTMENT, INC.

Attest:

_____
Ed Brantley
Secretary, WAKE NEW-HOPE VOLUNTEER FIRE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

WENDELL-HOLMES RURAL FIRE DEPARTMENT, INC.

BY: _____
Wayne Vaughan
President, WENDELL-HOLMES RURAL FIRE DEPARTMENT, INC.

Attest:

_____
Dr. Mark Vardy
Secretary, WENDELL-HOLMES RURAL FIRE DEPARTMENT, INC.

Dated this _____ day of _____, 2014.

WESTERN WAKE FIRE RESCUE, INC.

BY: _____
Michael Duda
President, WESTERN WAKE FIRE RESCUE, INC.

Attest:

_____
Pam Hiovich
Secretary, WESTERN WAKE FIRE RESCUE, INC.

Dated this _____ day of _____, 2014.

Article 83.

Mutual Aid between Fire Departments

§ 58-83-1. Authority to send firemen and apparatus beyond territorial limits; privileges and immunities.

A county, municipal corporation, fire protection district, sanitary district or incorporated fire department shall have full authority to send, or to decline to send, firemen and apparatus beyond the territorial limits which it normally serves.

When responding to a call and while working at a fire or other emergency outside the territorial limits which it normally serves, members and employees of county, municipal corporation, fire protection district, sanitary district and incorporated fire departments shall have all authority, rights, privileges and immunities including coverage under the Workers' Compensation Laws, as they have when responding to a call and while working at a fire or other emergency inside the territorial limits normally served.

A county, municipal corporation, fire protection district, sanitary district, or incorporated fire department, in attending an emergency or answering a call outside the limits of the county, municipal corporation, fire protection district, sanitary district, or other area normally served, shall have all authority, rights, privileges, and immunities that it would have in attending an emergency or answering a call inside the territorial limits normally served. (1965, c. 707; 1991, c. 636, s. 3.)

Item Title:
Fire Tax Budget and Financial Report

Specific Action Requested:
That the Fire Commission receives the information related to the Fire Tax Budget and Financial Report.

Item Summary:
Budget and Fiscal Policy Analyst Mark Matthews will provide a Fire Tax Financial update to the Fire Commission.

Attachments:
1. Reports

FY 2015 WAKE COUNTY FIRE TAX DISTRICT OPERATING FINANCIAL REPORT (As of September 11, 2014)

Appropriation: 5120N2500 Fire Tax District - System

Unit: F250 Fire Tax District System

Revenue Source/ Expenditure Object	Adopted Budget	Amended Budget	PTD Actual	Commitments (excluding pending)	YTD Actual	Total Commitments + YTD	Amended Budget Less YTD Actual	YTD % of Amended Budget	Comments
T127 NC DMV Taxes	0.00	0.00	146,827.52	0.00	146,827.52	146,827.52	(146,827.52)	NA	Includes DMV Funding.
T128 Refunds of NC DMV Taxes	0.00	0.00	(2,009.15)	0.00	(2,009.15)	(2,009.15)	2,009.15	NA	
T200 Special District Taxes	20,935,000.00	20,935,000.00	2,425,356.75	0.00	2,425,356.75	2,425,356.75	18,509,643.25	12%	
N132 Interest - NCDOT - DMV Taxes	0.00	0.00	41.34	0.00	41.34	41.34	(41.34)	NA	
N140 Market vs Cost Investment Difference	0.00	0.00	10,811.56	0.00	10,811.56	10,811.56	(10,811.56)	NA	
N150 Interest Income/Pooled Funds	15,000.00	15,000.00	1,319.22	0.00	1,319.22	1,319.22	13,680.78	9%	
A370 Appropriated Fund Balance	353,000.00	387,995.00	0.00	0.00	0.00	0.00	387,995.00	0%	
Total Revenues	**21,303,000**	**21,337,995**	**2,582,347**	**0**	**2,582,347**	**2,582,347**	**18,755,648**	**12%**	

Revenue Source/ Expenditure Object	Adopted Budget	Amended Budget	PTD Actual	Commitments (excluding pending)	YTD Actual	Total Commitments + YTD	Amended Budget Less YTD Actual	YTD % of Amended Budget	Comments
2406 CONTRACTED SERVICES	0.00	34,995.00	0.00	34,995.00	0.00	34,995.00	0.00	100%	
3104 EQUIPMENT	0.00	0.00	0.00	3,460.45	0.00	3,460.45	(3,460.45)	NA	
3617 DISPATCH SERVICE	187,857.00	187,857.00	46,964.50	140,892.50	46,964.50	187,857.00	0.00	100%	
3714 MAINTENANCE AND REPAIR OF EQUIPMENT	17,832.00	17,832.00	1,965.26	0.00	1,965.26	1,965.26	15,866.74	11%	
4208 CITY OF RALEIGH HAZMAT PROGRAM	87,595.00	87,595.00	0.00	87,594.73	0.00	87,594.73	0.27	100%	
4224 NC DEPT OF NRCD - FORESTRY	80,025.00	80,025.00	5,734.90	74,290.10	5,734.90	80,025.00	0.00	100%	
4428 MISC CHARGES FROM OTHER DEPT/DIV	358,695.00	358,695.00	0.00	0.00	0.00	0.00	358,695.00	0%	
4446 800mhz charges from other dept	129,366.00	129,366.00	0.00	0.00	0.00	0.00	129,366.00	0%	
4447 CAD charges from other dept	9,954.00	9,954.00	0.00	0.00	0.00	0.00	9,954.00	0%	
4460 GSA Utilities - Electric	18,912.00	18,912.00	2,184.67	0.00	2,184.67	2,184.67	16,727.33	12%	
4758 MV Tax Collection Costs	50,000.00	50,000.00	3,422.64	0.00	3,422.64	3,422.64	46,577.36	7%	
8104 CONTINGENCY	16,162.00	16,162.00	0.00	0.00	0.00	0.00	16,162.00	0%	
9103 TRANSFER TO C/P CO CONSTRUCTION FUND	1,284,000.00	1,284,000.00	1,284,000.00	0.00	1,284,000.00	1,284,000.00	0.00	100%	
9109 TRANSFER TO D/S FROM TAX DISTRICT FUND	1,407,000.00	1,407,000.00	0.00	0.00	0.00	0.00	1,407,000.00	0%	
Total Expenditures	**3,647,398**	**3,682,393**	**1,344,272**	**341,233**	**1,344,272**	**1,685,505**	**1,996,888**	**46%**	
Subtotal Unit: F250									
Total Revenues	**21,303,000**	**21,337,995**	**2,582,347**		**2,582,347**	**2,582,347**	**18,755,648**	**12.10**	
Total Expenditures	**3,647,398**	**3,682,393**	**1,344,272**	**341,233**	**1,344,272**	**1,685,505**	**1,996,888**	**36.51**	

FY 2015 WAKE COUNTY FIRE TAX DISTRICT OPERATING FINANCIAL REPORT (As of September 11, 2014)

Department: 51 Fire and Emergency Management

Unit	Unit Name	Revenue Source/ Expenditure Object	Adopted Budget	Amended Budget	PTD Actual	Commitments (excluding pending)	YTD Actual	Total Commitments + YTD	Amended Budget Less YTD Actual	YTD % of Amended Budget
F251	Apex FD	2406 CONTRACTED	717,851.00	717,851.00	179,462.76	538,388.24	179,462.76	717,851.00	0.00	25.00
F252	Bay Leaf FD	2406 CONTRACTED	1,568,390.00	1,568,390.00	414,178.25	1,154,211.75	414,178.25	1,568,390.00	0.00	26.41
F253	Cary FD	2406 CONTRACTED	74,765.00	74,765.00	18,691.18	56,073.56	18,691.18	74,764.74	0.26	25.00
F254	Duham Highway FD	2406 CONTRACTED	755,394.00	755,394.00	188,848.50	566,545.50	188,848.50	755,394.00	0.00	25.00
F255	Eastern Wake FD	2406 CONTRACTED	1,555,048.00	1,555,048.00	383,101.74	1,149,305.22	383,101.74	1,532,406.96	22,641.04	24.64
F256	Fairview FD	2406 CONTRACTED	1,174,766.00	1,174,766.00	293,691.51	881,074.49	293,691.51	1,174,766.00	0.00	25.00
F258	Fuquay Varina FD	2406 CONTRACTED	1,421,823.00	1,421,823.00	355,455.75	1,066,367.25	355,455.75	1,421,823.00	0.00	25.00
F259	Garner FD	2406 CONTRACTED	1,689,738.00	1,689,738.00	422,434.50	1,267,303.50	422,434.50	1,689,738.00	0.00	25.00
F260	Holly Springs FD	2406 CONTRACTED	585,277.00	585,277.00	146,319.24	438,957.76	146,319.24	585,277.00	0.00	25.00
F261	Hopkins FD	2406 CONTRACTED	752,967.00	752,967.00	188,241.75	564,725.25	188,241.75	752,967.00	0.00	25.00
F262	Morrisville FD	2406 CONTRACTED	831,306.00	831,306.00	207,826.50	623,479.50	207,826.50	831,306.00	0.00	25.00
F264	Rolesville FD	2406 CONTRACTED	726,592.00	726,592.00	181,647.99	544,943.97	181,647.99	726,591.96	0.04	25.00
F265	Stony Hill FD	2406 CONTRACTED	1,004,926.00	1,004,926.00	272,276.50	732,649.50	272,276.50	1,004,926.00	0.00	27.09
F266	Swift Creek FD	2406 CONTRACTED	489,060.00	489,060.00	111,015.00	378,045.00	111,015.00	489,060.00	0.00	22.70
F267	Wake-New Hope FD	2406 CONTRACTED	1,116,231.00	1,116,231.00	279,057.75	837,173.25	279,057.75	1,116,231.00	0.00	25.00
F268	Wake Forest FD	2406 CONTRACTED	697,597.00	697,597.00	174,399.24	523,197.72	174,399.24	697,596.96	0.04	25.00
F269	Wendell FD	2406 CONTRACTED	1,425,792.00	1,425,792.00	356,448.00	1,069,344.00	356,448.00	1,425,792.00	0.00	25.00
F270	Western Wake FD	2406 CONTRACTED	524,834.00	524,834.00	131,208.47	393,625.53	131,208.47	524,834.00	0.00	25.00
F271	Zebulon FD	2406 CONTRACTED	543,245.00	543,245.00	135,811.26	407,433.74	135,811.26	543,245.00	0.00	25.00

WAKE COUNTY
CIP Projects Budget vs. Actual (Including Pending Exp)
For Fiscal Year(s) 2007 to 2015
From FP: 200712 To FP: 201503

Fund: 4400 Fire CIP

Department 84 Fire And Rescue CIP

Division 8420 Fire Facilities

Unit	Unit Name	Appropriation Unit	Budgeted Revenues	Actual Revenues to Date	Revenues (Over) / Under Budget	Current Expenditure Budget	Actual Expenses to Date	Commitments	Pending Expenses	Actual Expenses to Date with Commitments and Pending	Remaining Expenditure Budget	Remaining Expenditure Authority (actual balance)	Notes
020F	Fire-Bayleaf #1	8400P0100	$3,948,513.09	$3,948,513.09	$0.00	$3,948,513.09	$3,784,625.69	$4,982.50		$3,789,608.19	$158,904.90	$158,904.90	
026F	Stony Hill Remediation	8420V0100	$784,348.00	$784,348.00	$0.00	$784,348.00	$551,235.41	$48,130.59	$0.00	$599,366.00	$184,982.00	$184,982.00	
050F	Wendell Falls Station, Fire Tax Portion	8420V0100	$350,000.00	$350,000.00	$0.00	$350,000.00	$2,200.00	$0.00		$2,200.00	$347,800.00	$347,800.00	
057F	Fire Planned Facility Repairs	8420V0100	$691,230.95	$691,230.95	$0.00	$691,230.95	$444,007.24	$35,250.00		$479,347.24	$211,883.71	$211,883.71	
Total Division 8420 Fire Facilities			$5,774,092.04	$5,774,092.04	$0.00	$5,774,092.04	$4,782,158.34	$88,363.09	$0.00	$4,870,521.43	$903,570.61	$903,570.61	

Division 8430 Fire Fighting Equipment

Unit	Unit Name	Appropriation Unit	Budgeted Revenues	Actual Revenues to Date	Revenues (Over) / Under Budget	Current Expenditure Budget	Actual Expenses to Date	Commitments	Pending Expenses	Actual Expenses to Date with Commitments and Pending	Remaining Expenditure Budget	Remaining Expenditure Authority (actual balance)	Notes
041F	CONTINGENCIES & GRANT MATCHES	8400P0100	$131,603.00	$131,603.00	$0.00	$131,603.00	$108,608.54	$0.00		$108,608.54	$22,994.46	$22,994.46	
044F	TURNOUT GEAR	8430V0300	$1,538,000.00	$1,538,000.00	$0.00	$1,538,000.00	$1,290,935.53	$0.00		$1,290,935.53	$247,064.47	$247,064.47	
060F	Fire 800MHZ - Omnilink Upgrade	8430V0300	$259,000.00	$259,000.00	$0.00	$259,000.00	$259,000.00	$0.00		$259,000.00	$0.00	$0.00	Current funding expended. Project will be closed.
061F	Fire Air Bottle Replacement	8430V0300	$291,000.00	$291,000.00	$0.00	$291,000.00	$19,301.80	$0.00		$19,301.80	$271,698.20	$271,698.20	
062F	Fire Defibrillators	8430V0300	$227,000.00	$227,000.00	$0.00	$227,000.00	$63,884.27	$125.36		$64,009.63	$162,990.37	$162,990.37	
063F	Fire Thermal Imaging Cameras	8430V0300	$262,000.00	$262,000.00	$0.00	$262,000.00	$190,160.72	$0.00		$190,160.72	$71,839.28	$71,839.28	
066F	Fire SCBA's	8430V0300	$461,000.00	$461,000.00	$0.00	$461,000.00	$204,411.53	$0.00		$204,411.53	$256,588.47	$256,588.47	
070F	Fire Small Capital - FY14	8430V0300	$150,000.00	$150,000.00	$0.00	$150,000.00	$129,302.74	$0.00		$129,302.74	$20,697.26	$20,697.26	
071F	Fire Small Capital - FY15	8430V0300	$150,000.00	$150,000.00	$0.00	$150,000.00	$8,333.33	$0.00		$8,333.33	$141,666.67	$141,666.67	
Total Division 8430 Fire Fighting Equipment			$3,469,603.00	$3,469,603.00	$0.00	$3,469,603.00	$2,273,938.46	$125.36		$2,274,063.82	$1,195,539.18	$1,195,539.18	

Division 8440 Fire Apparatus

Unit	Unit Name	Appropriation Unit	Budgeted Revenues	Actual Revenues to Date	Revenues (Over) / Under Budget	Current Expenditure Budget	Actual Expenses to Date	Commitments	Pending Expenses	Actual Expenses to Date with Commitments and Pending	Remaining Expenditure Budget	Remaining Expenditure Authority (actual balance)	Notes
054F	General Fire Apparatus	8440V0100	$103,192.82	$103,192.82	$0.00	$103,192.82	$1,356.00	$0.00		$1,356.00	$101,836.82	$101,836.82	
056F	Fire Small Vehicles	8440V0100	$431,371.04	$437,243.08	($5,872.04)	$431,371.04	$192,496.66	$0.00	$35,000.00	$227,496.66	$203,874.38	$209,746.42	
067F	FY13 Large Apparatus - Rural	8440V0100	$991,770.28	$991,770.28	$0.00	$991,770.28	$919,770.28	$0.00		$919,770.28	$72,000.00	$72,000.00	Project will be closed, debt proceeds to be transferred to debt service fund to offset fire debt service, and savings will be moved to uncommitted fund balance.
068F	FY13 Large Apparatus - Municipal	8440V0100	$229,897.78	$229,897.78	$0.00	$229,897.78	$149,420.46	$80,477.32		$229,897.78	$0.00	$0.00	Payments competed. Project will be closed.
080F	FY14 Large Apparatus - Municipal	8440V0100	$345,000.00	$345,000.00	$0.00	$345,000.00	$0.00	$0.00		$0.00	$345,000.00	$345,000.00	
081F	FY14 Large Apparatus - Rural	8440V0100	$1,587,526.00	$100,526.00	$1,487,000.00	$1,587,526.00	$25,000.00	$1,562,526.00		$1,587,526.00	$0.00	($1,487,000.00)	Debt financing revenue held in 999F for accounting purposes.
082F	FY15 Large Apparatus - Municipal	8440V0100	$465,000.00	$425,000.00	$40,000.00	$465,000.00	$0.00	$0.00		$0.00	$465,000.00	$425,000.00	Debt funding for FY 2014 Rural Apparatus to be transferred to 081F upon acceptance of apparatus.
999F	Fire CIP - Installment Proceeds	8440V0100	$0.00	$1,487,000.00	($1,487,000.00)	$0.00	$0.00	$0.00		$0.00	$0.00	$1,487,000.00	
Total Division 8440 Fire Apparatus			$4,153,757.92	$4,119,629.96	$34,127.96	$4,153,757.92	$1,288,043.40	$1,643,003.32	$35,000.00	$2,966,046.72	$1,187,711.20	$1,153,583.24	

Division 8499 Fire Capital Uncommitted

Unit	Unit Name	Appropriation Unit	Budgeted Revenues	Actual Revenues to Date	Revenues (Over) / Under Budget	Current Expenditure Budget	Actual Expenses to Date	Commitments	Pending Expenses	Actual Expenses to Date with Commitments and Pending	Remaining Expenditure Budget	Remaining Expenditure Authority (actual balance)	Notes

096F	Fire Preexisting Department - Debt Service	8490V0100	$272,000.00	$272,000.00	$0.00	$272,000.90	$97,703.78	$171,938.76		$269,642.54	$2,357.46	$2,357.46
097F	Transfer to Debt Service Fund	8490V0100	$20,904.36	$20,904.36	$0.00	$20,904.36	$20,904.36	$0.00		$20,904.36	$0.00	$0.00
098F	Garner Station #4 Interlocal Agreement	8490V0100	$120,000.00	$61,000.00	$59,000.00	$120,000.00	$0.00	$0.00		$0.00	$120,000.00	$61,000.00
099F	Fire Capital Uncommitted	8490V0100	$266,000.00	$2,562,313.15	($2,296,313.15)	$266,000.00	$0.00	$0.00		$0.00	$266,000.00	$2,562,313.15
Total Division 8499 Fire Capital Uncommitted			$678,904.36	$2,916,217.51	($2,237,313.15)	$678,904.36	$118,608.14	$171,938.76		$290,546.90	$388,357.46	$2,625,670.61
Total Department 84 Fire And Rescue CIP			$14,076,357.32	$16,279,542.51	($2,203,185.19)	$14,076,357.32	$8,462,748.34	$1,903,430.53	$35,000.00	$10,401,178.87	$3,675,178.45	$5,878,363.64
Total Fund: 4400 Fire CIP			$14,076,357.32	$16,279,542.51	($2,203,185.19)	$14,076,357.32	$8,462,748.34	$1,903,430.53	$35,000.00	$10,401,178.87	$3,675,178.45	$5,878,363.64

Item Title:
Cost Share Study Update

Specific Action Requested:
That the Fire Commission receives the information related to the status of the Cost Sharing, Funding, and Service Delivery Analysis report.

Item Summary:
The Fire Commission has scheduled a special called meeting on **September 25, 2014** at **10 AM** in room C-170 of the **Wake County Public Safety Center**, 330 S Salisbury St, Raleigh, NC to receive Public and Stakeholder Input on the preliminary draft of the Cost Sharing, Funding, and Service Delivery Analysis report. The report and location information may be reviewed on the Wake County Fire Services website at www.wakegov.com/fire. While anyone able is strongly encouraged to participate in the public hearing in person, input and feedback will also be accepted electronically via the email address posted with the Study on the Fire Services website (wakeco@ESCI.us).

The Preliminary Cost Share Study has already undergone technical review by the Cost Share Committee and all eight cost share departments and is ready to receive public or stakeholder input. While the Committee has endorsed the release of the study to receive input, the committee has not endorsed any specific methodology for determining cost shares.

Kent Greene of Emergency Services Consulting International (ESCI), the author of the study, will make a brief presentation on the scope, process, findings, and possible funding criteria for the cost share formula at the Fire Commission Public Hearing for the benefit of those in attendance. Please note that while the report contains a significant amount of data, including incorporated/unincorporated percentage splits on a number of potential criteria and several weighted formulas shown for illustrative purposes, **no specific recommended cost share formula is proposed at this time**. Both the consultant and Cost Share Committee feel it is important for stakeholders to weigh in on which criteria should be incorporated into the final recommended methodology prior to making a recommendation.

Following receipt of public input, ESCI will incorporate public and stakeholder input and the consultant's final recommendations into the final Cost Share Study. The final Cost Share Study will be presented, along with Cost Share Committee feedback and committee recommendations to the Board of Commissioners Worksession on November 10. To allow for Fire Commission feedback in advance of the Board of Commissioners Worksession, the Cost Share Committee has also requested a special called Fire Commission meeting be held on or by November 6, which has not yet been scheduled.

Attachments:
1. Preliminary Draft of the Cost Sharing, Funding, and Service Delivery Analysis Report

Wake County

North Carolina

Cost Sharing, Funding and Service Delivery Analysis

Emergency Services Consulting International

Acknowledgements

During this project, Emergency Services Consulting International (ESCI) required an enormous amount of technical data in order to be successful. We would like to thank the following individuals and groups for providing coordination, data assistance and guidance throughout this process.

Wake County

Mark Matthews, Fiscal and Policy Analyst

Mike Wright, Director Wake County Fire Services

Demetric Potts, Wake County Fire Services

Cost Share Departments

Town of Apex Fire Department

Town of Fuquay-Varina Fire Department

Garner Fire-Rescue

Town of Holly Springs Fire Department

Town of Morrisville Fire Department

Rolesville Rural Fire Department

Wake Forest Fire Department

Town of Zebulon Fire Department

Cost Share Committee Members

Robert Stagg, Wake County Fire Commission

Mark Haraway, Fire Chief – Town of Apex

Matthew Poole, Fire Chief – Garner Fire-Rescue

Tim Pope, Fire Chief – Bayleaf Fire Department

Emily Lucas, Finance Director – Town of Garner

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Key to Abbreviations

AFD – Apex Fire Department

CAD – Computer Aided Dispatch

ESCI – Emergency Services Consulting International

FVFD – Fuquay-Varina Fire Department

GFR – Garner Fire/Rescue

HSFD – Holly Springs Fire Department

MFD – Morrisville Fire Department

NFIRS – National Fire Incident Reporting System

NFPA – National Fire Protection Association

RDU – Raleigh-Durham International Airport

RRFD – Rolesville Rural Fire Department

RTP – Research Triangle Park

USFA – United States Fire Administration

WFFD – Wake Forest Fire Department

ZFD – Zebulon Fire Department

Executive Summary

Emergency Services Consulting International (ESCI) was engaged by Wake County, North Carolina to review the existing cost share agreements with the eight cost share fire departments serving parts of unincorporated Wake County and to establish a methodology that can be used moving forward to make distribution of available fire tax funds more equitable, reasonable and defensible. This report is the culmination of that process and begins with a general description of the fire services system serving unincorporated Wake County.

Unincorporated Wake County is served by a number of municipal and not-for-profit fire departments. Eight of those departments; Apex, Garner, Holly Springs, Fuquay-Varina, Morrisville, Rolesville, Wake Forest and Zebulon, are considered cost-share departments that receive a portion of their funding through the Wake County fire district tax levy. The remainder of their funding is provided by their respective municipalities. The population served by these eight departments in the unincorporated areas totals approximately 188,854 based on 2012 U.S. Census estimates.

In order for ESCI to produce an alternative method for calculating the cost-share between the county and the study departments, ESCI first reviewed each agency, their operations and their funding mechanisms. ESCI conducted stakeholder interviews within each community that included representatives of the fire department as well as municipal leadership. These meetings were intended to obtain relevant information to the project and included elements such as department history, deployment of stations and resources, staffing methodologies, economic development concerns, occupancy (residential versus commercial), target hazards, growth rates, etc. Within the body of this report is a summary of each of those stakeholder interviews as well as comparisons between the study departments and national available benchmark data where appropriate. Comparisons include percent of total budget from cost-share, total valuation, unincorporated valuation, cost per capita, cost per incident and cost per square mile, to name a few.

As a part of the overall review of each study agency, departmental budgets were evaluated to determine historical changes and how the county's contribution has changed over time. As of fiscal year 2014, the cost share departments were allocated 32.63 percent of the total fire district levy. At historic rates from the past four years, that percentage will increase to 38.88 percent by 2020 compared to a rate of 28.05 percent in 2010. Total allocations in fiscal year 2014 ranged from a low of $422,737 to Holly Springs to a high of $1,650,766 to Garner.

In addition to internal and national benchmark comparisons, ESCI also reviewed information from various jurisdictions around the southeast including Mecklenburg County, NC; Guilford County, NC; Greenville County, SC; Fairfax County, VA; Montgomery County, MD; Fulton County, GA; Gwinnett County, GA; Pinellas County, FL; Tualatin Valley Fire and Rescue, OR, Clackamas County, OR and Duval County, FL. These comparable jurisdictions use a variety of methods to fund fire protection in their unincorporated areas with most having individual tax rates for multiple fire districts. The benchmark data included within the body of the report is footnoted as necessary but several caveats need to be stated. The fire service has historically been limited in the dissemination of benchmark data, therefore,

the only viable information available for comparison purposes is produced by the U.S. Fire Administration. This data is generated annually from peer surveys sent to every fire department in the U.S. and, when returned, the results are tabulated and distributed. The data is not validated in any way and, in most cases, does not consider the variety of services provided by the respondent departments nor does it consider geographical area. In most cases, the benchmark information is simply tied to population, which can be condensed into a small area or spread across a vast response area. It is important for the reader to understand these caveats that are mentioned where appropriate and not take any one statistical comparison as an independent indicator of service level or evaluation of efficiency.

ESCI used the information from the comparable data between the cost-share departments and constructed a number of ways in which those departments could be funded through the fire district tax levy including funding based on area served, valuation, heated square footage, service demand and population. Those elements were also weighted to construct a multiple-variable model that can be used to include each element in a combined model. The following figures represent the individual elements (un-weighted) for each cost-share department.

Jurisdiction	Area	Assessed Value	Heated Sq. Ft.	Service Demand	Population	Parcels	Composite
Apex	23.1%	78.7%	87.2%	35.4%	68.6%	81.3%	62.4%
Hipex	76.9%	21.3%	12.8%	64.6%	31.4%	18.7%	37.6%
Fuquay-Varina	18.0%	48.0%	58.3%	44.5%	45.6%	47.4%	43.6%
Furina	82.0%	52.0%	41.7%	55.5%	54.4%	52.6%	56.4%
Garner	18.6%	53.2%	58.0%	36.1%	48.5%	42.9%	42.9%
Garner Rural	81.4%	46.8%	42.0%	63.9%	51.5%	57.1%	57.1%
Holly Springs	42.5%	85.1%	90.4%	52.2%	90.9%	88.1%	74.9%
Holly Springs Rural	57.5%	14.9%	9.6%	47.8%	9.1%	11.9%	25.1%
Morrisville	38.4%	74.2%	83.5%	45.4%	94.6%	88.3%	70.7%
Morrisville Rural	61.6%	25.8%	16.5%	54.6%	5.4%	11.7%	29.3%
Rolesville	10.7%	33.6%	46.5%	8.0%	32.3%	36.9%	28.0%
Rolesville Rural	89.3%	66.4%	53.5%	92.0%	67.7%	63.1%	72.0%
Wake Forest	43.2%	74.0%	80.4%	53.8%	81.5%	79.9%	68.8%

Wakette	56.8%	26.0%	19.6%	46.2%	18.5%	20.1%	31.2%
Zebulon	14.2%	59.9%	67.7%	13.1%	48.5%	46.8%	41.7%
Wakelon	85.8%	40.1%	32.3%	86.9%	51.5%	53.2%	58.3%

The multiple-variable weights were **assigned randomly** as illustrated below and should be finalized through consensus before applying the multiple-variable calculations that follow. They are provided here as an example of how this methodology could be used, and does not constitute a final weighted recommendation, which will be made after receiving public and stakeholder input.

Multiple Variable Weights	
Multiple Variable #1	
Area	10%
Valuation	25%
Heated Square Footage	10%
Service Demand	25%
Population	15%
Parcels	15%
	100%
Multiple Variable #2	
Area	5%
Valuation	20%
Heated Square Footage	10%
Service Demand	40%
Population	15%
Parcels	10%
	100%
Multiple Variable #3	
Area	10%
Valuation	5%
Heated Square Footage	15%
Service Demand	30%
Population	35%
Parcels	5%
	100%

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Apex	62.0%	58.2%	58.0%
Hipex	38.0%	41.8%	42.0%

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Fuquay-Varina	44.7%	45.7%	44.6%
Furina	55.3%	54.3%	55.4%

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Garner	43.7%	43.4%	43.2%
Garner Rural	56.3%	56.6%	56.8%

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Holly Springs	74.5%	71.5%	73.9%
Holly Springs Rural	25.5%	28.5%	26.1%

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Morrisville	69.5%	66.3%	71.2%
Morrisville Rural	30.5%	33.7%	28.8%

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Rolesville	26.5%	23.6%	25.3%
Rolesville Rural	73.5%	76.4%	74.7%

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Wake Forest	68.5%	66.7%	68.7%
Wakette	31.5%	33.3%	31.3%

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Zebulon	40.7%	36.7%	37.8%
Wakelon	59.3%	63.3%	62.2%

The overall intent of this project was to evaluate the current methodology of providing the cost-share departments with funding for providing emergency services to the unincorporated areas that they serve and to develop a useable, long-term, defensible system of providing that funding in the future. The information provided within this report should be reviewed by each individual organization and municipality and consensus formed on what model to use moving forward. Once the weights provided in the multiple-variable model are determined, ESCI would recommend that model for future funding.

Organization Overview

Emergency Services Consulting International (ESCI) was engaged by Wake County, North Carolina to review the existing cost share agreements with the eight cost share fire departments serving parts of unincorporated Wake County and to establish a methodology that can be used moving forward to make distribution of available fire tax funds more equitable, reasonable and defensible. This report is the culmination of that process and begins with a general description of the fire services system serving unincorporated Wake County. Throughout this report, certain elements of data analysis are presented alongside benchmark data obtained from a variety of sources. Certain limitations apply to any such available benchmark data and no single element or benchmark should be considered individually as a means of determining service delivery capabilities, resource utilization or cost effectiveness. Information provided here should be viewed as a whole before determining the future direction of the fire departments serving Wake County.

SERVICE AREA POPULATION AND DEMOGRAPHICS

Wake County, North Carolina is the second most populous county in the state and serves as home to the State Capital. As of the 2010 census, the total county population was 900,993 (952,151 – 2012). The county contains the following municipalities and their respective 2010 and (2012) populations[1].

- Apex – 37,476 (40,420)
- Cary – 135,234 (145.693)
- Garner – 25,745 (26,732)
- Holly Springs – 24,661 (26,865)
- Fuquay-Varina – 17,937 (19,929)
- Knightdale – 11,401 (12,724)
- Morrisville – 18,576 (20,591)
- Raleigh – 403,892 (423,179)
- Rolesville – 3,789 (4,263)
- Wake Forest – 30,117 (32,936)
- Wendell – 5,845 (6,155)
- Zebulon – 4,433 (4,610)

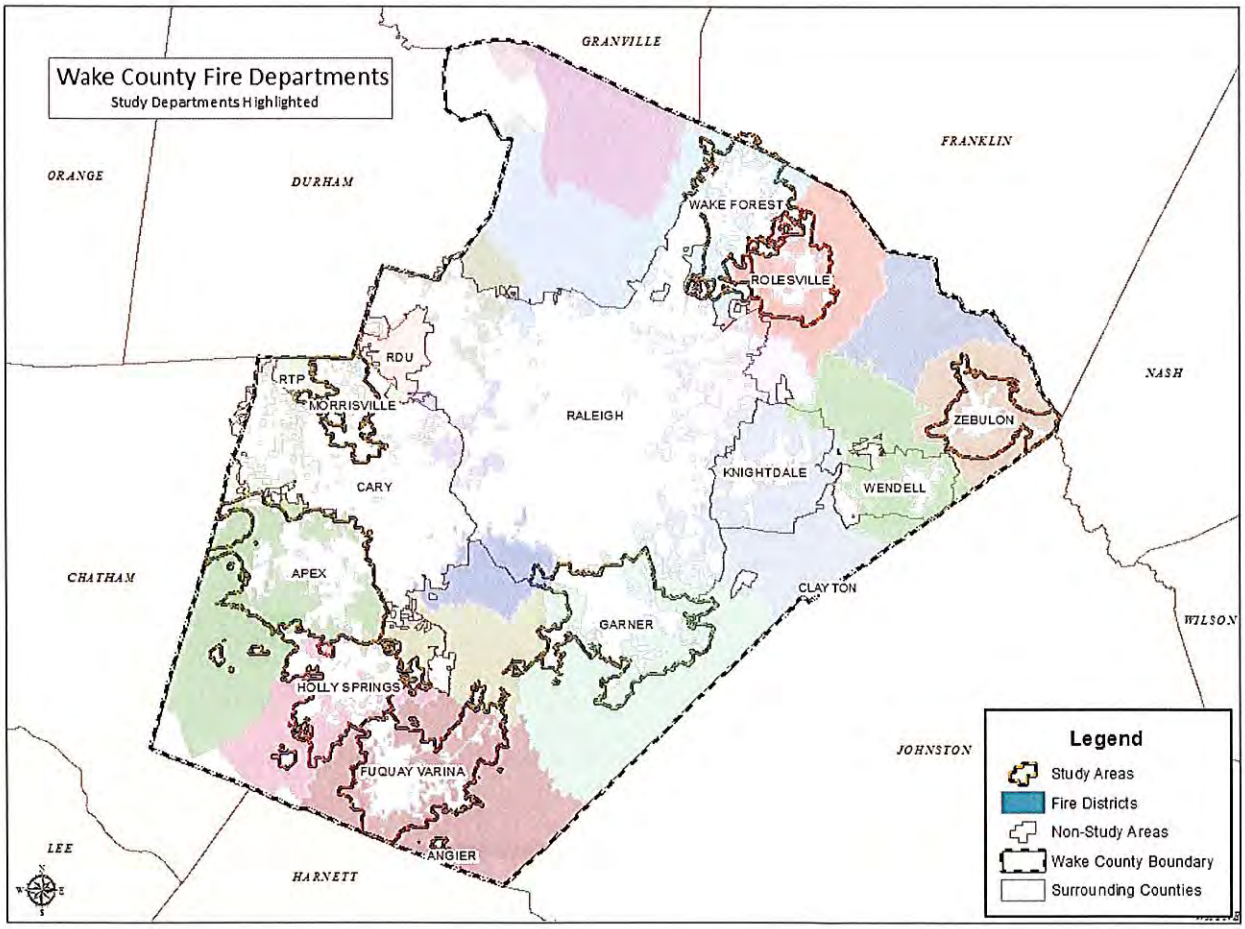
Subtracting the municipal population results in an unincorporated population of 181,887 based on the 2010 census, and a 2012 estimate of 188,854. As of the writing of this report, there were a total of 21 fire departments providing fire protection and first response emergency medical services throughout Wake County. Of these, eight departments participate in the cost share and protect both municipal and unincorporated areas. Those departments include:

[1] U.S. Census Bureau. American FactFinder.

- Town of Apex Fire Department
- Town of Fuquay-Varina Fire Department
- Garner Fire and Rescue
- Town of Holly Springs Fire Department
- Town of Morrisville Fire Department
- Rolesville Rural Fire Department
- Wake Forest Fire Department
- Town of Zebulon Fire Department

The remainder of the county is provided protection through municipal or non-profit fire departments. The figure below illustrates the various departments and coverage areas related to the cost share.

Figure 1: Overview of General Service Area



The total land area of Wake County is estimated at 857 square miles including all municipalities, Research Triangle Park (RTP) and Raleigh Durham International Airport (RDU). 300.75 square miles are

contained within the municipalities leaving approximately 548.55 square miles, with RDU excluded, as unincorporated area. This produces a total county population density of 1,111.96 per square mile and an unincorporated population density of 344.28 per square mile. These numbers, however, can be deceiving since a number of higher density pockets exist in unincorporated areas around the fringes of the municipalities. To confuse matters even further, census data indicates that the municipalities see a daytime decline in population of 11,841 due to commuting from/to other areas for work and/or shopping. No data is available for the county as a whole regarding commuter changes to population.

The cost share departments provide services to a total of 282.95 square miles of unincorporated Wake County with a total estimated resident population of 95,867. The following subsections review each of the cost share departments and the specific areas and populations they serve both inside their respective municipalities and the unincorporated areas they serve.

Town of Apex Fire Department

The Town of Apex Fire Department (AFD) serves a municipal population of 40,420 based on the 2012 census in an area of 15.37 square miles. Census data indicates that the town experiences a net decrease in population due to daytime commuting of approximately 5,991[2]. AFD also serves approximately 51.17 square miles of unincorporated Wake County known as the Hipex part of the county-wide rural fire district. Approximately 18,516 persons reside within the Hipex district based on January 2014 Wake County estimates

Town of Fuquay-Varina Fire Department

The Town of Fuquay-Varina Fire Department (FVFD) serves a municipal population of 19,929 based on the 2012 census in an area of 12.16 square miles. Census data indicates that the town experiences a net decrease in population due to daytime commuting of approximately 600[2]. FVFD also serves approximately 55.26 square miles of unincorporated Wake County known as the Furina part of the county-wide rural fire district. Approximately 23,816 persons reside within the Furina district based on January 2014 Wake County estimates.

Garner Fire-Rescue

Garner Fire-Rescue (GFR) serves a municipal population of a 26,732 based on the 2012 census in an area of 14.79 square miles. Census data indicates that the Town of Garner experiences a net increase in population of 174 due to daytime commuting[2]. GFR also serves approximately 64.76 square miles of unincorporated Wake County known as the Garner Suburban district. Approximately 28,368 persons reside in the Garner Suburban district based on January 2014 Wake County estimates.

Town of Holly Springs Fire Department

The Town of Holly Springs Fire Department (HSFD) serves a municipal population of 26,865 based on the 2012 census in an area of 15.14 square miles. Census data indicates that the town sees a net decrease in population due to daytime commuting of 6,157[2]. HSFD also serves approximately 20.49 square miles of unincorporated Wake County known as the Holly Spring Rural part of the county-wide rural fire district.

[2] U.S. Census Bureau. Commuting Files. Table 3. Commuter-Adjusted Daytime Population: Places.

Approximately 2,687 persons reside in the Holly Springs Rural district based on January 2014 Wake County estimates.

Town of Morrisville Fire Department

The Town of Morrisville Fire Department (MFD) serves a municipal population of 20,591 based on 2012 census data in an area of 8.30 square miles. Census data indicates that the town experiences a net increase in daytime population due to commuting of approximately 6,294[2]. MFD also serves approximately 13.31 square miles of unincorporated Wake County known as the Morrisville Rural part of the county-wide rural fire district. Approximately 1,166 persons reside in the Morrisville Rural district based on January 2014 Wake County estimates.

Rolesville Rural Fire Department

The Rolesville Rural Fire Department (RRFD) serves a municipal population of 4,263 based on 2012 census data in an area of 3.94 square miles. Commuter data was not available for the Town of Rolesville. RVFD also serves approximately 32.88 square miles of unincorporated Wake County known as the Rolesville Rural part of the county-wide rural fire district. Approximately 8,920 persons reside in the Rolesville Rural district based on 2014 Wake County estimates.

Wake Forest Fire Department

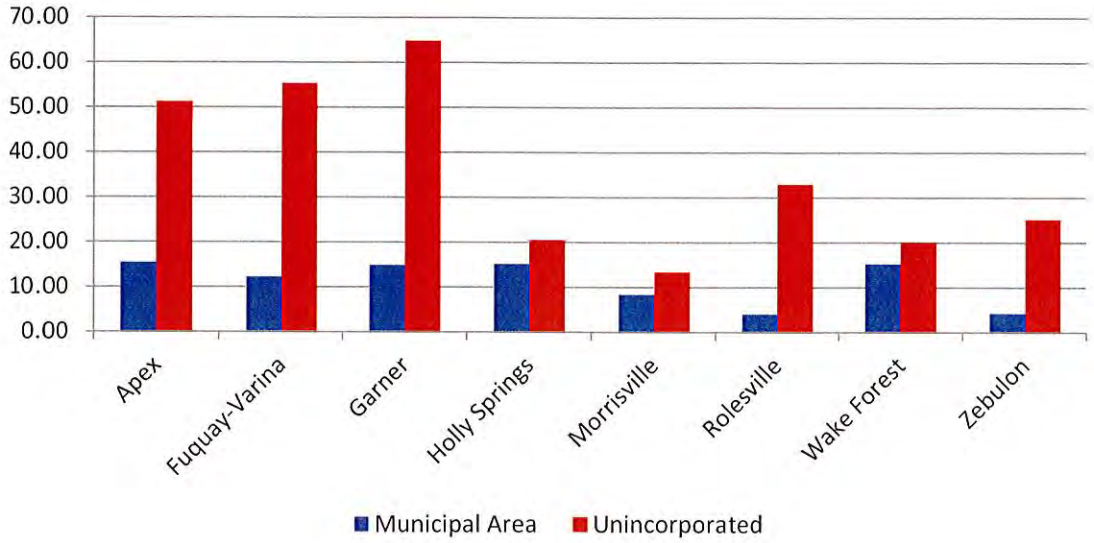
Wake Forest Fire Department (WFFD) serves a municipal population of 32,936 based on 2012 census data in an area of 15.21 square miles. Census data indicates that the town experiences a net decrease in population due to commuting of approximately 3,816[2]. WFFD also serves approximately 19.97 square miles of unincorporated Wake County known as the Wakette portion of the county-wide rural fire district. Approximately 7,494 persons reside in the Wakette district based on 2014 Wake County estimates.

Town of Zebulon Fire Department

Zebulon Fire Department (ZFD) serves a municipal population of 4,610 based on 2012 census data in an area of 4.17 square miles. Census data indicates that the Town of Zebulon experiences a net increase in daytime population due to commuting of approximately 1,807[2]. ZFD also serves approximately 25.11 square miles of unincorporated Wake County known as the Wakelon portion of the county-wide rural fire district. Approximately 4,900 persons reside in the Wakelon district based on 2014 Wake County estimates.

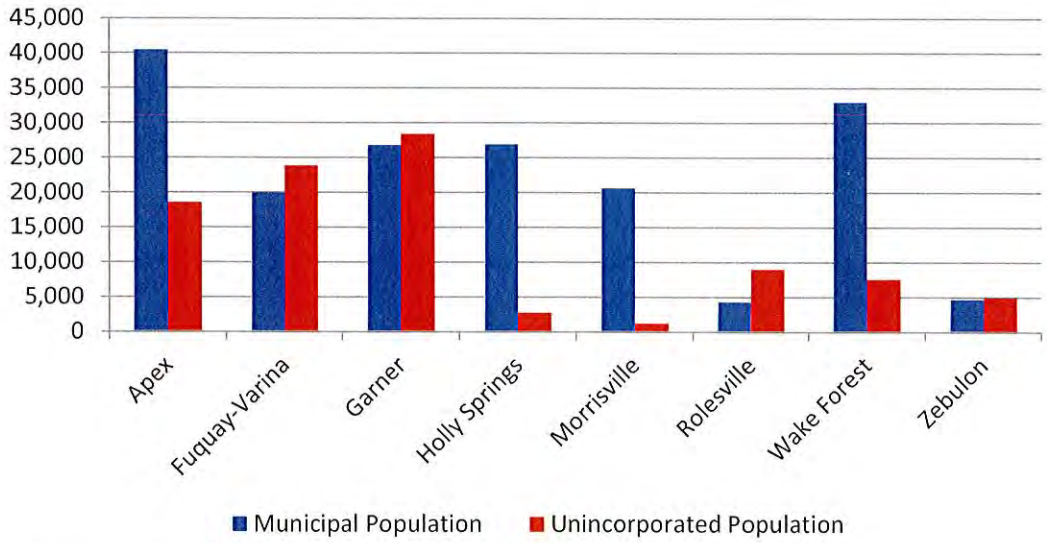
The following figure summarizes the areas served by the cost share departments based on municipal and unincorporated area.

Figure 2: Comparison of Service Area (Square Miles)[3]



Based on raw service area values, the cost share departments are serving a total municipal land area of 89.08 square miles and an unincorporated land area of 282.95 square miles. The figure below evaluates population on same level.

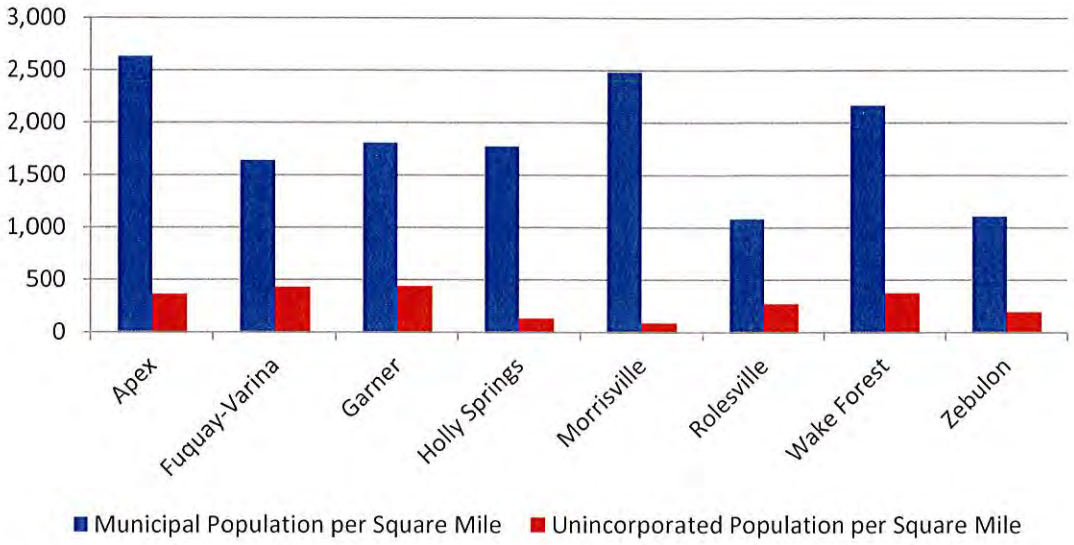
Figure 3: Comparison of Population Served[4]



The cost share departments are providing services to a total of 176,346 persons within the municipalities plus another 95,867 in the unincorporated areas. The figure below represents the two previous figures in a population per square mile perspective.

[3] U.S. Census Bureau and Wake County Fire Services.
[4] Ibid.

Figure 4: Population by Square Mile[5]

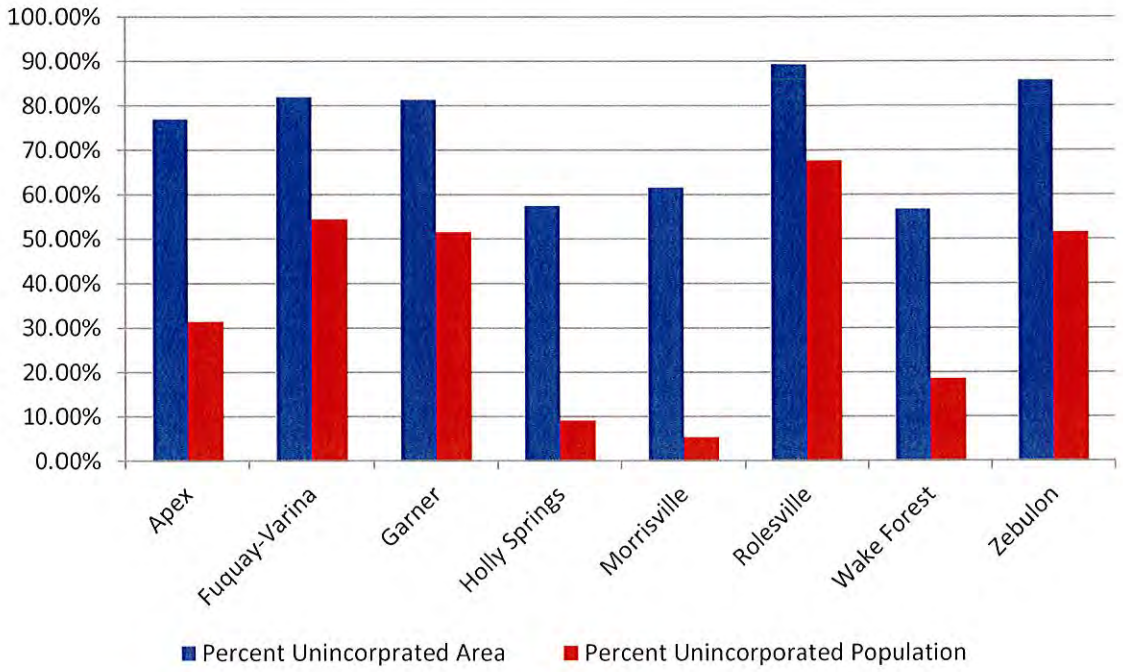


The overall municipal population per square mile calculates to 1,111.96 while the unincorporated population per square mile calculates to 338.81. Again, this value can be misleading due to the high variability of population densities in the unincorporated areas. This will be discussed later in more detail.

The figure below compares the percentage of unincorporated area and population served to the total area and population of the municipal and unincorporated areas combined.

[5] ESCI generated data.

Figure 5: Percentage Unincorporated Area/Population[6]



In summary, all of the cost share departments are providing service to a higher percentage of land area in the unincorporated areas than within their respective municipalities. Only four of the cost share departments are providing services to a larger population in the unincorporated areas then within their respective municipalities. This is provided to illustrate the differences in the departments and the communities they serve across Wake County.

[6] Wake County Fire Services.

HISTORY AND GENERAL DESCRIPTIONS

In order to grasp a true understanding of the various organizations providing fire protection and other emergency services to unincorporated Wake County, the following section is intended to provide a general description of each cost share department regarding infrastructure, equipment and services provided.

Town of Apex Fire Department

The Town of Apex Fire Department (AFD) was created as a municipal fire department in 2002 when Apex Volunteer Fire Department consolidated with the town. AFD has transitioned from a predominantly volunteer organization to its current form as a predominantly career emergency services provider.

AFD operates from four strategically placed stations serving both the Town of Apex and unincorporated Wake County as discussed previously with four engines, two aerial apparatus, two tankers, three rescue apparatus and one brush/wildland unit. Stations 1, 2 and 3 are single engine company stations while Station 4 operates an engine and an aerial device. All other apparatus are cross-staffed based on need or in reserve status.

The department maintains an administrative staff of six including the fire chief, assistant fire chief, fire marshal, deputy fire marshal, fire staffing specialist and an administrative assistant. Operational staff consists of three battalion chiefs, three captains, three lieutenants, 15 engineers, 27 career firefighters. In addition, there are 13 part-time firefighters and approximately 15 volunteer personnel that supplement the career staff. The department has received a fire insurance rating of three in the town and a split rating of 6/9E in the unincorporated areas. Approximately 65 percent of the unincorporated area is served by municipal water and another 18 static water points are available throughout the area when needed.

The primary response area includes a number of high-risk occupancies both inside and outside the municipal limits including: Harris Nuclear Station, Dixie Pipeline, CSX railway, Apex Tools, EMC^2, numerous lab facilities and other petroleum pipelines and stations. Given the number of high-risk occupancies, the department provides a number of services over and above normal fire suppression. AFD is also the primary provider of first response basic life support (BLS) services in support of Apex EMS and Wake County EMS and also provides regional urban search and rescue (USAR), swift water rescue, dive, confined space rescue, high angle rope rescue, structural collapse rescue, trench rescue and vehicle extrication.

Town of Fuquay-Varina Fire Department

The Town of Fuquay-Varina Fire Department (FVFD) was created as a municipal fire department in 1999 when Fuquay-Varina Volunteer Fire Department was consolidated into the town as a general fund department. The original department, established in 1925 was dissolved but still provides some support to the organization as a new non-profit through annual banquets and a benevolence fund.

FVFD operates from three strategically placed stations throughout their service area that serve both the town and the unincorporated areas. The department provides services from three stations with a fleet of five engines, one aerial apparatus, four tankers, two rescue apparatus and one brush/wildland unit. Stations 1 and 2 are owned by the town and house three engines and the aerial apparatus as well as a battalion chief at Station 1 and an engine company at Station 2. Station 3 is owned by Wake County and houses an engine company and rescue apparatus.

The department maintains an administrative staff of the fire chief, assistant fire chief, fire marshal, deputy fire marshal and a fire support specialist. Operational staff consists of three battalion chiefs, nine captains, 11 engineers and 13 firefighters. In addition, the department employs two part-time positions that are on duty Monday through Friday from 8:00 a.m. to 5:00 p.m. and are filled from a rotating staff of 10 personnel. Approximately 20 volunteers supplement the career staff. The department has received a fire insurance rating of four in the town and a split rating of 4/9S in the unincorporated areas. It is estimated that only 20 percent of the unincorporated area is served by municipal water and there are no static water points except for one in the country club that is also used for course irrigation.

Based on information obtained from department and municipal officials, the town's has seen an estimated growth rate much higher than in previous years boasting the 4th largest number of new residential building permits. The town is a mix of residential, light commercial and mixed use properties and the primary response area includes a number of higher-risk occupancies both inside and outside the municipal limits including several mixed-use subdivisions, Bob Barker Company, John Deere, TE Connectivity and South Bend. Given the types and risks of the occupancies within the community, the department provides a number of services over and above normal fire suppression. FVFD is also the primary provider of first response basic life support (BLS) services in support of Wake County EMS (housed at two FVFD stations) and also provides water rescue/recovery and vehicle extrication.

Garner Fire-Rescue

Garner Fire-Rescue (GFR) is an independent not-for-profit fire department that was created in 1952 as a single station agency providing service to the Town of Garner and the surrounding unincorporated areas. Around 1987 the department hired its first full-time fire chief and has continued to increase the number of career personnel since that time. Today, the department is predominantly career supplemented by volunteer personnel.

GFR operates from four stations using a fleet of five engines two pumper-tankers, one aerial apparatus, two rescue apparatus, two tankers and two brush/wildland vehicles. Stations 1 and 2 are owned by the department, Station 3 is jointly owned by the department and the town and station four is jointly owned by Wake County and the Town of Garner at an 85/15 percent county to town split. Each station houses one staffed engine company and Station 1 also houses the aerial/rescue apparatus that is cross-staffed based on call type.

The department maintains an administrative staff of the fire chief, deputy chief and an executive assistant. Operational staff consists of three battalion chiefs, 15 captains, 15 lieutenants and 15 firefighters. In addition, the fire department has a volunteer battalion chief, 5 volunteer engineers and

28 volunteer firefighters. The department has received a fire insurance rating of 4 inside the Town of Garner and a split rating 6/9 throughout the unincorporated areas. It is estimated that nearly 100 percent of the service area is served by municipal water and there are no static water points.

Based on information provided by department and town officials, the growth rate for the area has ranged from two to four percent annually over the last 10 years. The service area is a mix of residential, commercial/industrial and group care/congregational facilities including rest homes, mental facilities and a number of public schools. In addition, some of the more high-risk occupancies include White Oak Shopping Center and the US-70, I-40 and I-440 corridors that generate a significant amount of commuter traffic. Considering the types of risks contained within the community, the department's primary service requests are medical in nature but the department must be prepared for other risks within the community. To this end, GFR also provides technical rescue including high angle rope rescue, surface water rescue and vehicle extrication. Also, GFR is the primary first responder in support of Wake County EMS (housed at three of the four GFR stations).

Town of Holly Springs Fire Department

The Town of Holly Springs Fire Department (HSFD) was created as a municipal department in 1995 when the Holly Springs Volunteer Fire Department determined that it could no longer sustain operations as a volunteer organization with the increasing demands for service being placed on the organization. Today the department is predominantly career with several part-time personnel and no volunteers.

HSFD operates from four strategically placed stations that provide service to both the town and the unincorporated areas with a fleet of four engines, one aerial apparatus, two rescue apparatus and two tankers. The department's administrative staff consists of the fire chief, assistant fire chief and an administrative assistant. Operations staff consists of three battalion chiefs, three captains, 11 engineers and 19 firefighters as well as four part-time firefighters to supplement the career staff. Three of the stations house an engine company while the fourth houses the aerial apparatus. Wake County EMS also houses a unit in one of the HSFD stations. The department has received a fire insurance rating of 4/9 throughout the entire service area. It is estimated that 100 percent of the town is served by municipal water and there are no static water points.

Based on information provided by department and town officials, the growth rate for the area has been extremely rapid over the last few years with an estimated 1,000 new units being added in 2014. The service area is a mix of residential, commercial and research occupancies. Some of the more high-risk occupancies include Novartis Pharma, Rex Hospital, Corrugated Container and a gravel quarry as well as portions of the Harris Nuclear Station. In addition, several pipelines run through the service area as well as a methane power station and five public schools. Considering the types of risks contained within the community, the department's primary service requests are medical in nature but the department must be prepared for other risks within the community.

Town of Morrisville Fire Department

The Town of Morrisville Fire Department (MFD) was created in 1994 when the Morrisville Volunteer Fire Department relinquished all assets to the town. The department continued to operate as part-time

employees to the new municipal department until 2003 when most of the remaining volunteers retired. Today, the department operates as a predominantly career organization supplemented by stipend volunteer (part-time) personnel. The administrative staff of the department is comprised of the fire chief, fire marshal, deputy fire marshal and an administrative support specialist. Operational staff consists of three battalion chiefs, nine captains, nine engineers, nine master firefighters and 12 firefighters.

The department operates out of three stations, two of which are staffed with MFD personnel and a third, which is collocated with the City of Cary (Cary Station 7). Station 1 houses an engine and a rescue apparatus that is cross-staffed while Station 2 houses an aerial apparatus and a battalion chief. The department maintains a fleet of four engines, one aerial apparatus, two rescues and one brush/wildland vehicle. The department has received a fire insurance rating of three in the town and a 3/9 throughout the unincorporated areas. Although the unincorporated area received a split rating, department officials indicate that only about two dozen properties lie within the class nine areas. It is estimated that nearly 100 percent of the service area is served by municipal water and there are no static water points that are actively used. RTP has an independent fire insurance rating that is not impacted by MFD.

Based on information provided by department officials includes large apartment complexes and mixed-use facilities that support the Research Triangle Park (1/3 of which is in Wake County). Primary risks within the community include long stretches of I-40, I-40, Chapel Hill Road, both passenger and freight rail service and the gateway to Raleigh-Durham International Airport. In addition, the facilities within the RTP contain a mix of high-tech, hazardous materials (including biohazards) and large numbers of personnel. To combat these specific risks, MFD provides, in addition to fire suppression services, technical rescue disciplines of structural collapse, confined space, high angle rope rescue, swift water rescue, dive and search and rescue in coordination with Apex Fire through NC Task Force 4. The department is also the primary first responder within the area in support of Wake County EMS and is the only accredited fire department within Wake County.

Rolesville Rural Fire Department

Rolesville Rural Fire Department (RRFD) is an independent not-for-profit fire department that was created in 1958 as a volunteer emergency services provider for the Town of Rolesville and the surrounding unincorporated areas. The department continues to remain independent from the town and contracts with the town to provide fire protection and other services within the municipal limits.

The department operates from a single station located within the town with a fleet of three engines, one aerial apparatus, two tankers and one brush/wildland vehicle. There are no career administrative positions within the organization. The administrative staff, consisting of the fire chief, two assistant chiefs, secretary/treasurer and an administrative secretary, are all either volunteer or part-time working hours ranging from five to 30 hours weekly. Operational staff consists of three lieutenants, three driver/operators, three firefighters and two additional firefighters that work Monday through Friday from 7:00 a.m. to 6:00 p.m. In addition, the department uses a cadre of 32 volunteer personnel to supplement the career staff. The department has received a fire insurance rating of six in the entirety of

the service area. It is estimated that 100 percent of the town is served by municipal water and there are approximately 12 static water points in the unincorporated areas that are actively used.

The town has seen an enormous rate of growth recently of nearly 400 percent over the last ten years. While much of the area within the town is light commercial and residential, large tracts of open space remain in the unincorporated areas. There are currently five public schools within the department's response area with a new four-story high school and a senior apartment complex under construction. Given the variety of risks within the response area, the fire department provides fire suppression and basic life support first response services (in support of Eastern Wake EMS) only, as well as limited vehicle extrication services. Technical-level rescue and hazardous materials responses are received from external agencies.

Wake Forest Fire Department

Wake Forest Fire Department (WFFD) is an independent not-for-profit fire department that was created in 1983 as a volunteer emergency services provider for the Town of Wake Forest and the surrounding unincorporated areas. The department remains independent and contracts with the town to provide fire protection and other services within the municipal limits.

The department operates from four stations strategically located throughout the service area with a fleet of four engines, one pumper/tanker that is used as a tanker, one aerial apparatus, one rescue apparatus, and four brush/wildland vehicles. Station 1 houses an engine company and aerial company while Stations 2 and 3 house a single engine company each. Station 5 (fourth station) is staffed with part-time personnel from 7:00 a.m. to 6:00 p.m. and volunteers on nights and weekends. The department's administrative staff consists of the fire chief and assistant fire chief as well as a part-time assistant chief and deputy chief. Operational staff consists of three assistant chiefs, 12 captains, 12 lieutenants and 24 career firefighters as well as 3 part-time captains, three part-time lieutenants and 4 part-time firefighters. In addition, the department maintains a roster of six volunteer battalion chiefs, six volunteer captains, six volunteer lieutenants and 35 volunteer firefighters.

The department has received a fire insurance rating of four in the town and a split rating of 5/9 in the unincorporated areas. It is estimated that nearly 100 percent of the town is served by municipal water and there are approximately three static water points in the unincorporated areas that are actively used.

Based on information provided by department and town officials, the growth rate in the area is substantial. Regarding higher risk occupancies, the department serves a chemical plant as well as up to six nursing homes, nine public schools, a number of private and charter schools and a large number of multi-family housing structures. Based on the level of risk, the fire department provides fire suppression services, basic life support first responder services, hazardous materials response and vehicle extrication services. Technical-level hazardous materials and technical rescue response are received from external agencies.

Town of Zebulon Fire Department

The Zebulon Rural Fire Department (ZFD) is a municipal fire department that was created in 2000 when the Zebulon Fire Department and the Zebulon Volunteer Fire Department merged into a single operating entity. Although separate organizations, the two departments operated functionally as a single department prior to 2000; sharing personnel and physical resources to provide services to both the town and the unincorporated areas. The department operates from a single station located within the town with a fleet of three engines, one aerial apparatus, one rescue, one tanker and one brush/wildland vehicle.

Station 1 staffs an engine company that can also cross-staff the aerial or other apparatus as necessary based on dispatch type. The administrative staff of the department consists of the fire chief and one captain that also have operational responsibilities. The operational staff consists of three lieutenants, three firefighter II and six firefighter I personnel as well as five part-time firefighter I and two additional call-back firefighters. In addition, the department maintains a roster of one volunteer assistant chief, three volunteer captains and 16 volunteer firefighters.

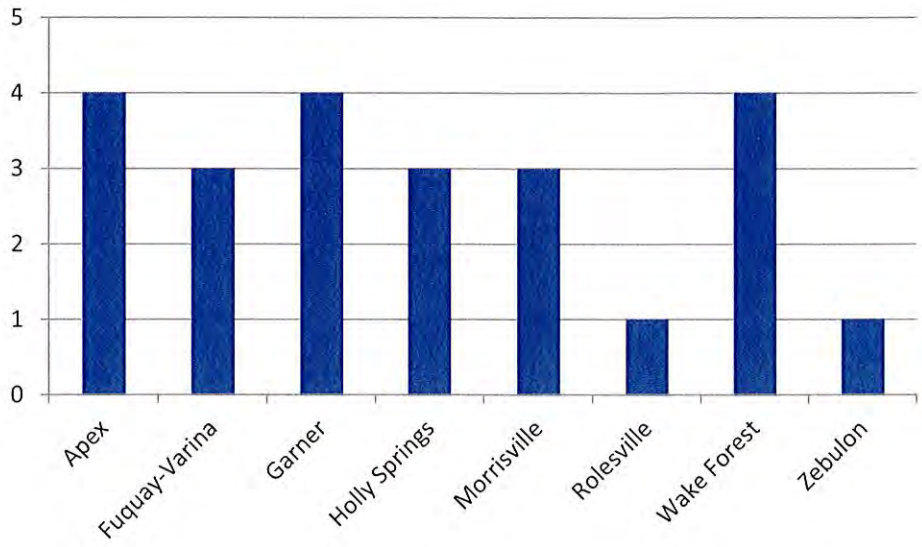
The department has received a fire insurance rating of three in the town and a split rating of 3/9 in the unincorporated areas. It is estimated that nearly 100 percent of the town is served by municipal water and there is only one static water point in the unincorporated areas that are actively used, while other potential sites have been identified.

Based on information provided by department and town officials, growth within the area is relatively flat and the population actually decreased between the 2000 and 2010 census. Only 50 permits for new residential homes were approved last year. 5pecific high-risk occupancies within the area include the minor league baseball stadium, Glaxo-Smith-Kline Pharmaceuticals and Nomacorc, Inc. In addition, the area reports that they have the most group homes per capita in Wake County as well as a high level of subsidized housing and a high poverty level. These special risks have prompted the department to provide fire suppression, basic life support first response (in support of Eastern Wake EMS housed next door to the fire station) and vehicle extrication services.

Study Department Comparison

The following figures summarize the elements discussed in the preceding paragraphs beginning with physical assets.

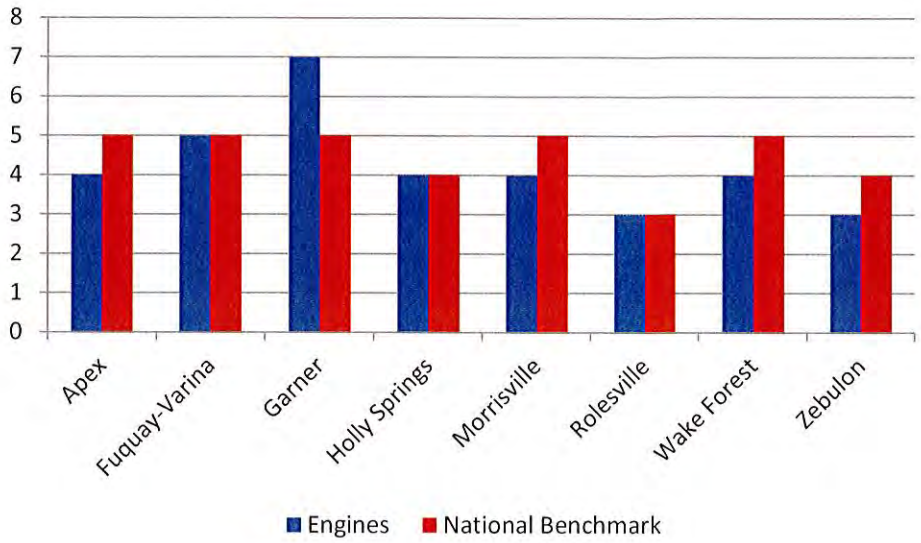
Figure 6: Comparison of Total Stations[7]



Since the study departments provide coverage to a variety of geographies and occupancies, viewing simply the number of stations is of little value. The National Fire Protection Association (NFPA) provides benchmark data based on population statistics annually that provide department and municipal policymakers with information from which they compare their departments against others across the country. The figure below illustrates the number of stations currently in place within each of the study department compared to the national benchmarks based on population variances for each department. Each department and municipality must decide how to deploy stations to effectively meet the adopted response performance standards for their particular community within their own fiscal limitations.

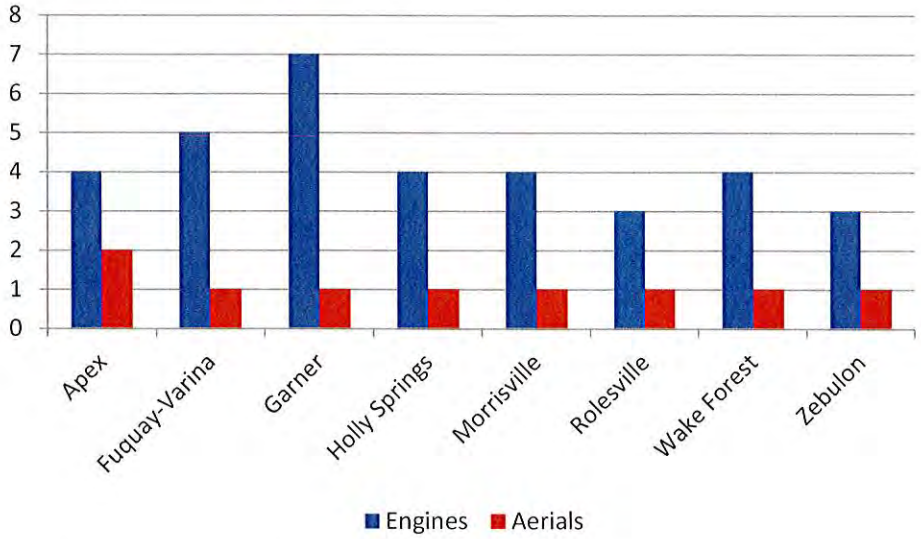
[7] Agency provided information.

Figure 7: Existing Stations Compared to National Benchmarks[8]



The following figure uses the same data to benchmark the number of engines and aerial apparatus within the study departments, including reserve apparatus.

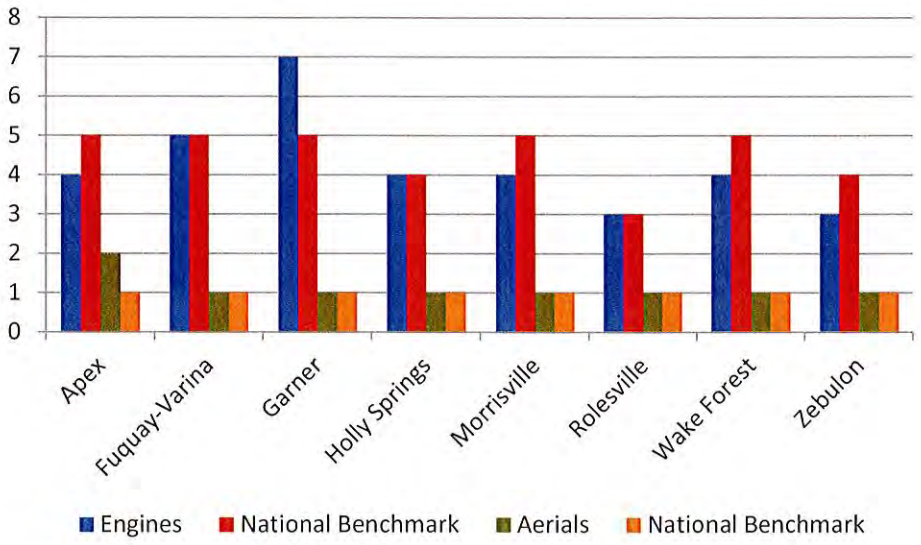
Figure 8: Comparison of Engines and Aerials[9]



As can be seen in the figure above, there is high variability in the number of engines distributed across the cost share departments and only AFD has two aerial apparatus, one of which is in reserve status. As with previous raw counts, this data is of little value. The following figure illustrates the same benchmark data discussed previously but in regards to engines and aerial apparatus.

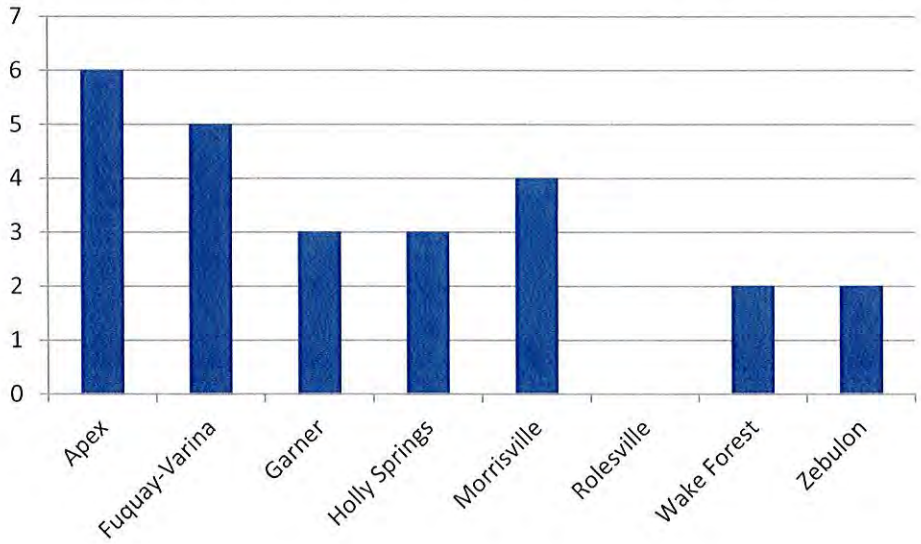
[8] U.S. Fire Administration.
[9] Ibid.

Figure 9: Existing Engines and Aerials Compared to National Benchmarks[10]



Based on the national benchmarks, the numbers of engines the study departments should have in service ranges from three (RRFD) to five (AFD, FVFD, GFR, MFD and WFFD). Each department, based on the benchmark should have a single aerial apparatus but, again, having one additional aerial within the overall system could provide useful if another organization's aerial device was unserviceable. The figure below reviews the number of administrative personnel within each organization.

Figure 10: Comparison of Career Administrative Personnel[11]

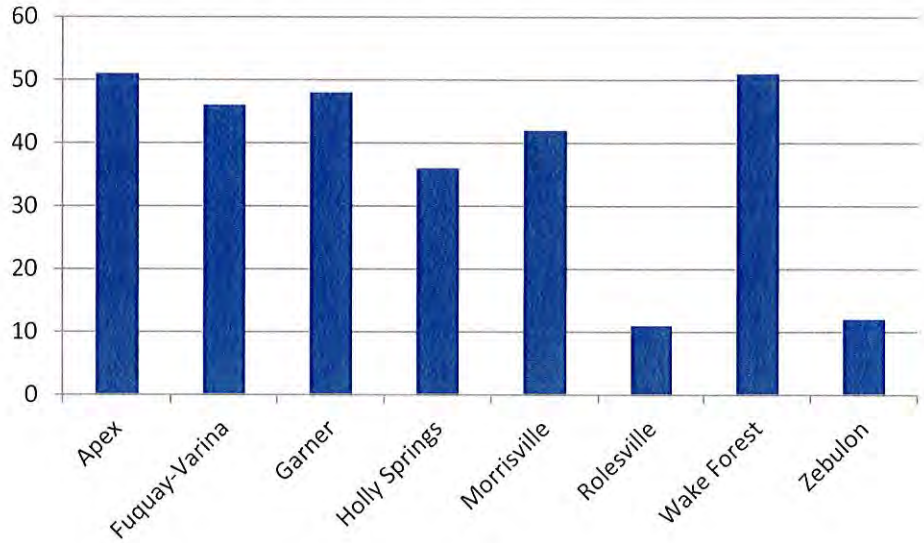


Each department has functioned independently based on the hiring of administrative and support personnel to underpin the operations of each department. While RFFD does not have any career

[10] Ibid.
[11] Agency provided information.

administrative personnel, part-time personnel do fill those roles as necessary as well as continue to provide operational services. Unfortunately, there are no national benchmarks regarding the ideal number of administrative and support personnel within an organization. It has been ESCI's experience, however, the more services provided by an organization over and above normal fire protection and basic life support first response, the more administrative personnel are necessary to oversee those additional services. The figure below compares the total number of career personnel within each agency.

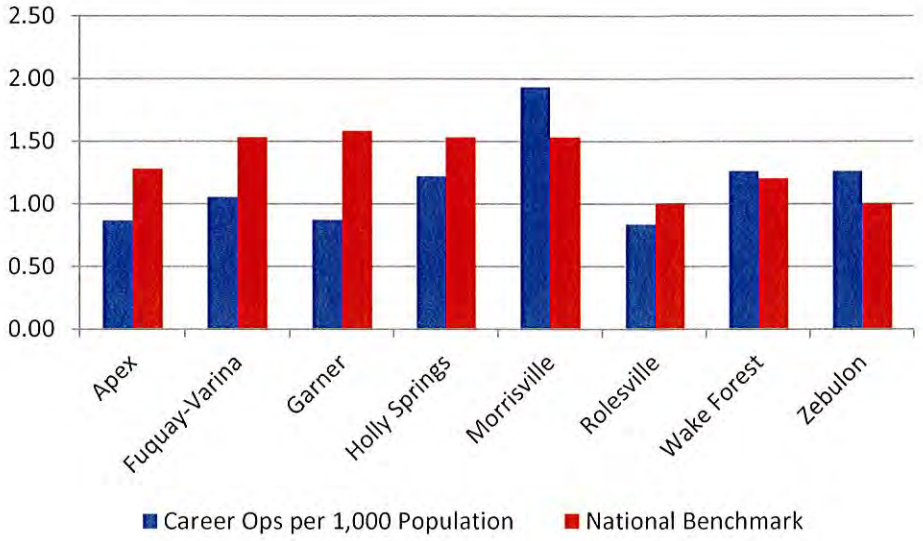
Figure 11: Comparison of Career Operations Personnel[12]



As expected, the smaller departments that provide fewer services have fewer career staff and those departments, such as AFD, that provide a high number of services are required to maintain a larger ready force of response personnel. This figure does not include part-time personnel since they are primarily used to supplement the career staff within each organization. The figure below applies the same benchmark information and previously discussed regarding career personnel.

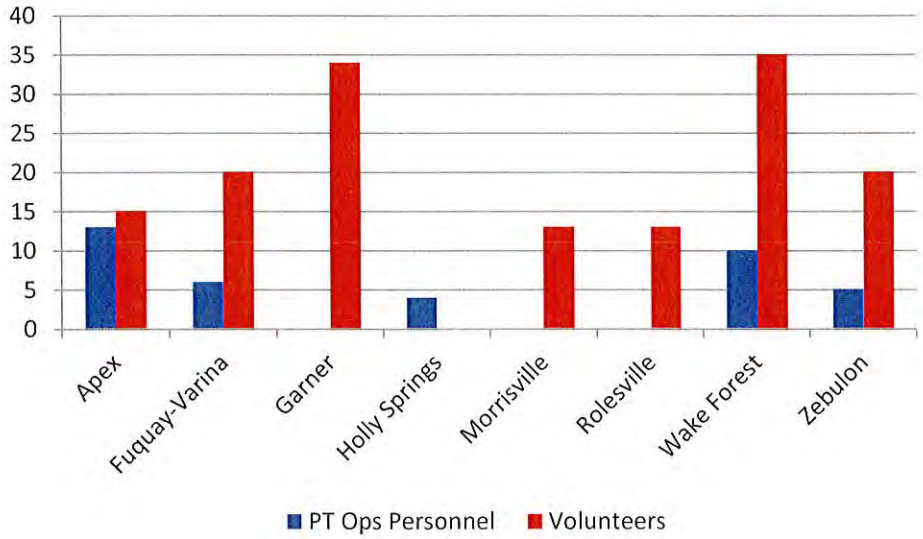
[12] Ibid.

Figure 12: Comparison of Career Operations Personnel to National Benchmarks (per 1,000 Population)[13]



Although not the case in Wake County, those departments used as part of the benchmark data that serve as the primary ambulance transport provider in a fire-based EMS system (a predominant model in many parts of the country) would have a higher rate of career personnel. The figure below illustrates the comparison of part-time and volunteer personnel of the study departments.

Figure 13: Comparison of Part-Time and Volunteer Personnel[14]

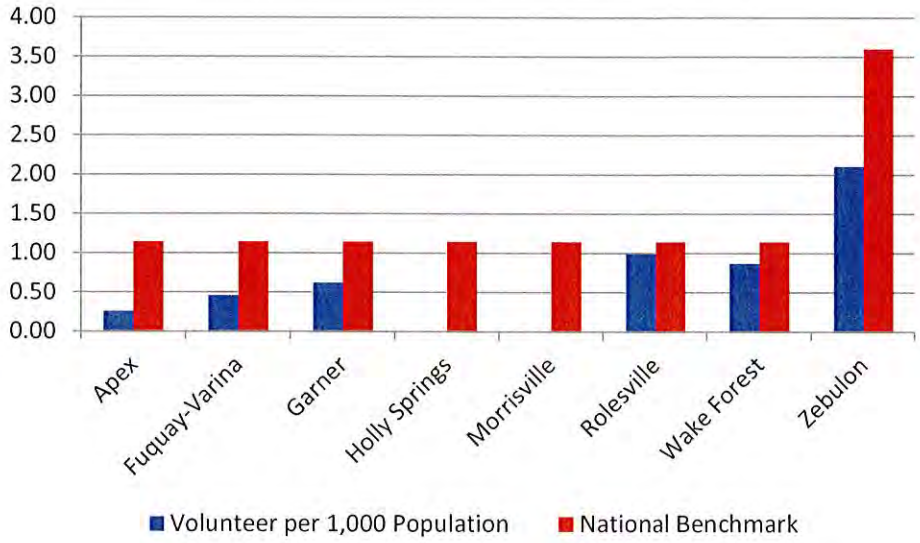


Only GFR and RRFD do not use part-time personnel. GFR uses a mix of career and volunteer personnel and RRFD relies on volunteers to supplement the career staff. HSFD is the only department (other than

[13] U.S. Fire Administration.
[14] Agency provided information.

MFD) that does not rely on volunteer personnel. The figure below presents the national benchmark data in this regard as previously discussed.

Figure 14: Comparison of Volunteer Personnel to National Benchmarks (per 1,000 Population)[15]



Based on national benchmarks that are tied to population only and not geography, demographics or services delivered, each department falls below the expected level of volunteer personnel. Each department and community, however, should be more in touch with the availability of volunteer personnel within their respective jurisdiction. It is, after all, the community's responsibility to generate volunteers; not the fire department. The figure below summarizes the services provided by the study departments.

Figure 15: Summary of Services Provided[16]

Department	Fire Supp.	EMS	Hazmat	CS	HA	SC	Trench	Dive	Veh. Ext.
Apex	•	EMT	Ops	•	•	•	•	•	•
Fuquay-Varina	•	EMT	Ops						•
Garner	•	EMT	Ops		•				•
Holly Springs	•	EMT	Ops						•
Morrisville	•	EMT	Ops	•	•	•	•	•	•
Rolesville	•	EMT	Ops						•
Wake Forest	•	EMT	Ops						•
Zebulon	•	EMT	Ops						•

[15] Ibid.

[16] Fire Supp. – Fire Suppression; EMS – Emergency Medical Services (EMT-Emergency Medical Technician, FR-First Responder); Hazmat – Hazardous Materials (Ops-Operations level, Tech-Technician level, Spec.-Specialist level); CS – Confined Space rescue; HA – High Angle Rope rescue; SC – Structural Collapse rescue; Trench – Trench rescue; Dive – Underwater rescue; Veh. Ext. – Heavy Vehicle Extrication. Agency provided information.

As can be seen in the figure above, both AFD and MFR provide technical rescue services above vehicle extrication. These services are provided county-wide and are available to any department within the region as well as across the state. All departments provide EMT-level first response services to their respective communities as well as hazardous materials response at the operations level. Technician-level hazardous materials response is provided through contract with the City of Raleigh Fire Department.

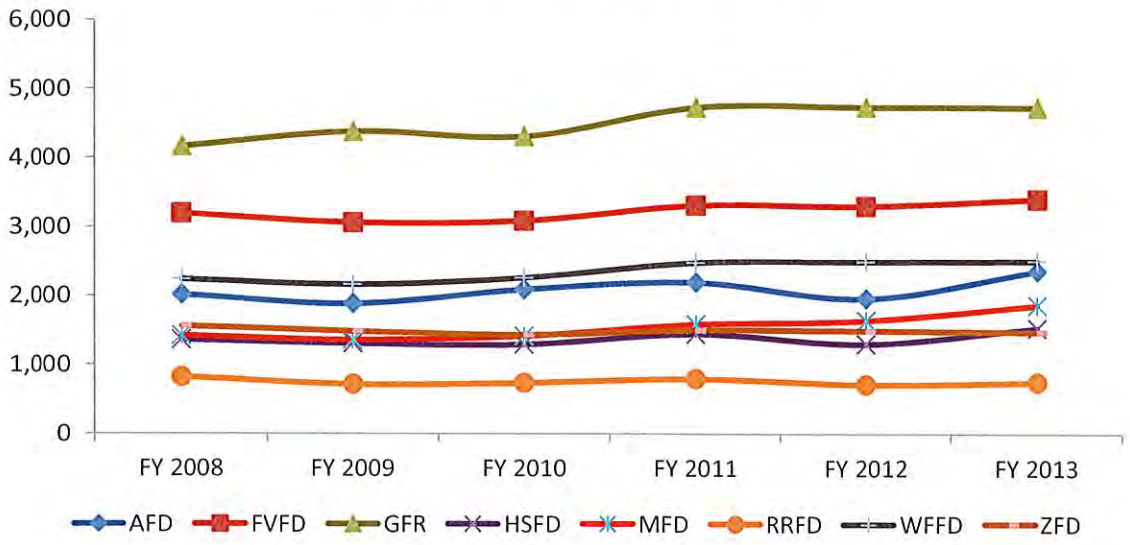
Service Delivery and Performance

It is obvious from the preceding section of this document that the study departments have both similarities and differences regarding deployment, staffing and services provided. While most of the general public does not understand the intricacies involved in the delivery of emergency services, the one component that is most visible is that of service delivery and performance. Although only a small percentage of citizens will actually use those services provided by their local fire departments, they all see the stations within their communities as well as the apparatus as they respond to incidents. In addition, most departments publish their response performance to maintain transparency and let the public know what they are paying for. This section reviews each department's overall service demand, distribution of resources from a geographical perspective and overall response performance.

SYSTEM DEMAND

System demand, or workload, can be defined in a number of different ways depending on the intent of the specific organization. For the purposes of this report, service demand can be defined by individual incidents regardless of type or location. While multiple unit responses occupy a larger number of resources, these incidents are typically much less frequent than routine, day-to-day responses. A review of service demand will begin with a look at how each department's call volumes have changed over the last six years.

Figure 16: Overall Departmental Service Demand[17]



On average, service demand across the study departments has increased 9.74 percent over the six-year period. The figure below provides individual department information regarding general service demand increases/decreases.

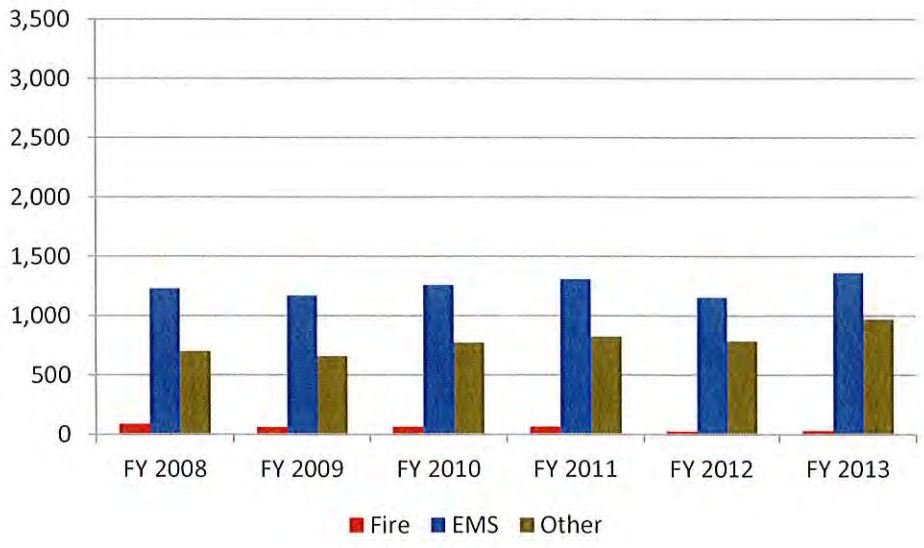
[17] Wake County Fire Services

Figure 17: Six-Year Overall Service Demand Change[18]

Department	Service Demand Change
AFD	17.12%
FVFD	6.62%
GFR	13.65%
HSFD	12.55%
MFD	31.14%
RRFD	-9.44%
WFFD	11.84%
ZFD	-5.53%
Non-Cost Share Departments	-7.41%

Overall service demand provides departments and the public with a snapshot of how busy any given organization may be but looking at service demand by incident type gives a more detailed description of the actual workload being accomplished, which in turn can lead to deployment and staffing decisions. Fire incidents, particularly structure fires, require a significant number of personnel to complete the critical tasks associated with pump operations, safety, attack line, back-up line, ventilation, command, etc. Medical incidents tend to occupy only a few personnel, perhaps two to three (plus the transport ambulance personnel) for most incidents. The figures below summarize each department's workload by incident type over the last six years.

Figure 18: Service Demand by Incident Type – AFD[19]



[18] ESCI generated data.
[19] Wake County Fire Services

Figure 19: Service Demand by Incident Type – FVFD[20]

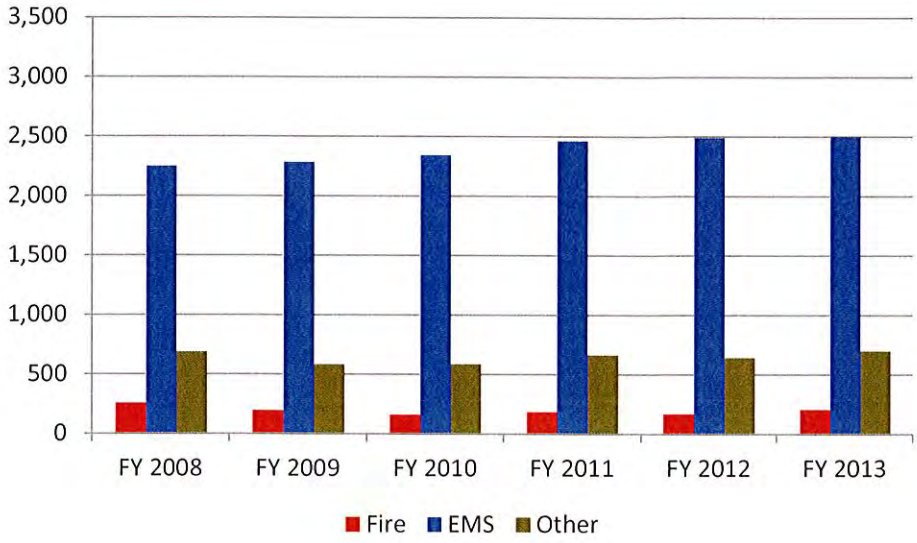
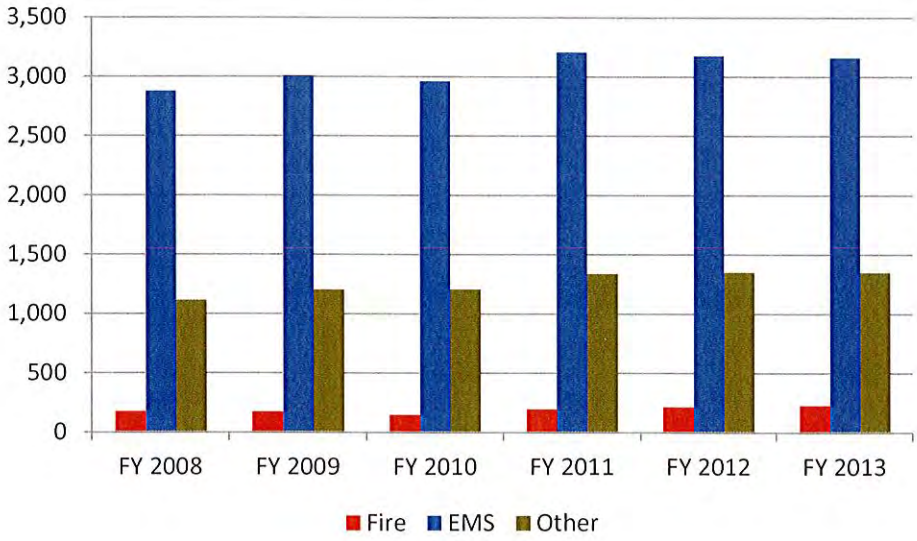


Figure 20: Service Demand by Incident Type – GFR[21]



[20] Ibid.
[21] Ibid.

Figure 21: Service Demand by Incident Type – HSFD[22]

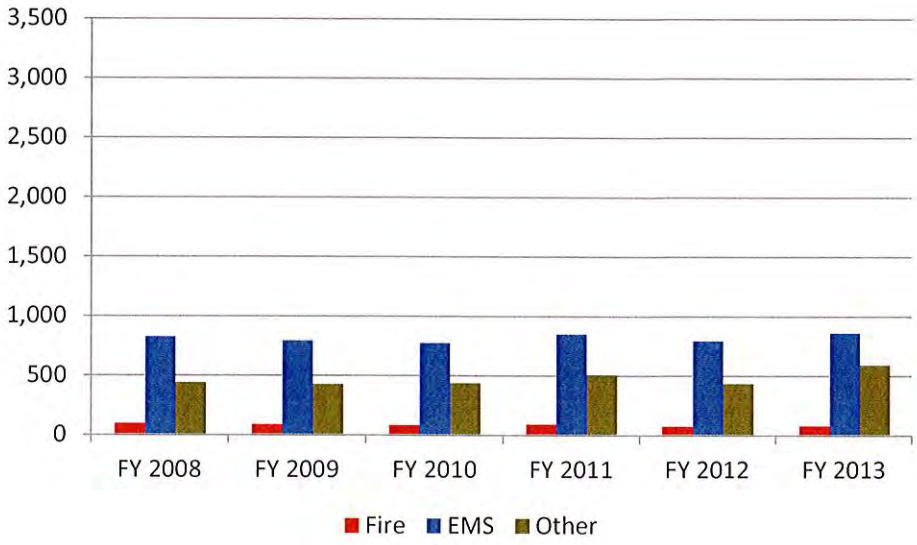
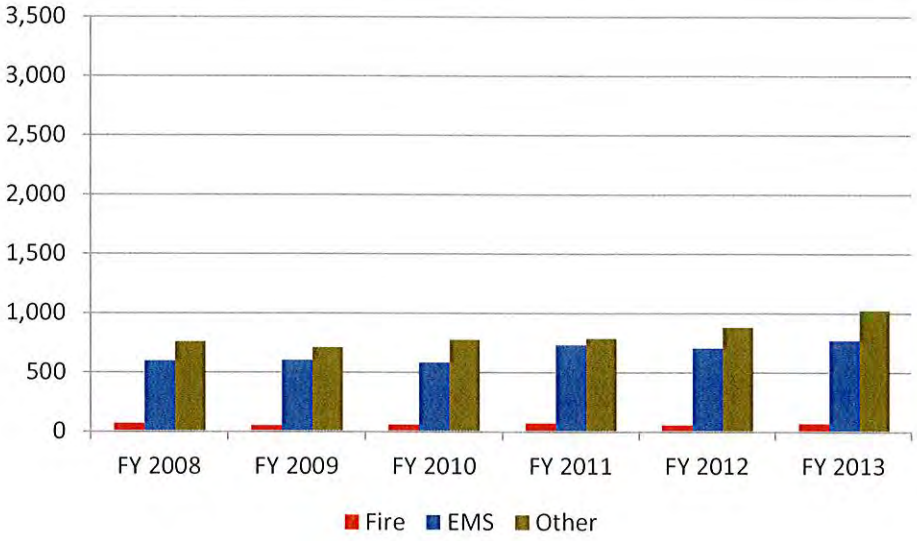


Figure 22: Service Demand by Incident Type – MFD[23]



[22] Ibid.
[23] Ibid.

Figure 23: Service Demand by Incident Type – RRFD[24]

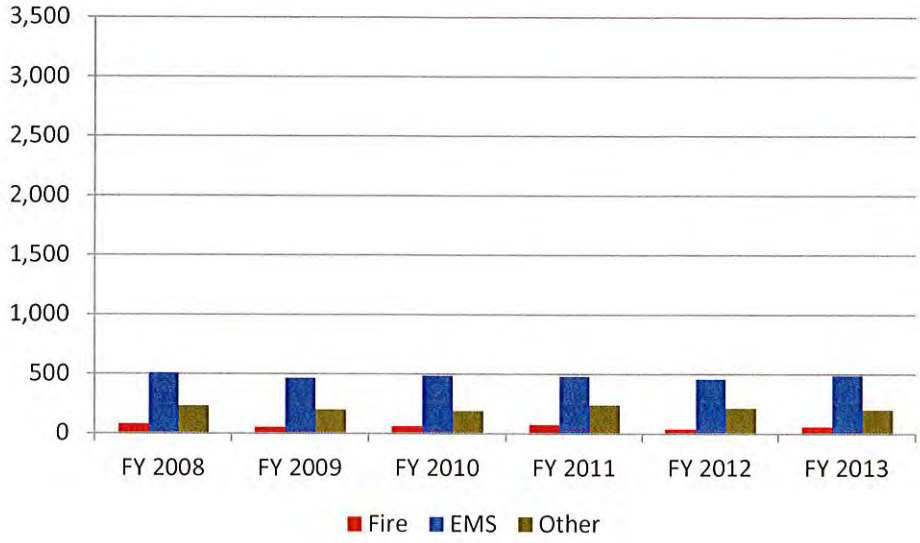
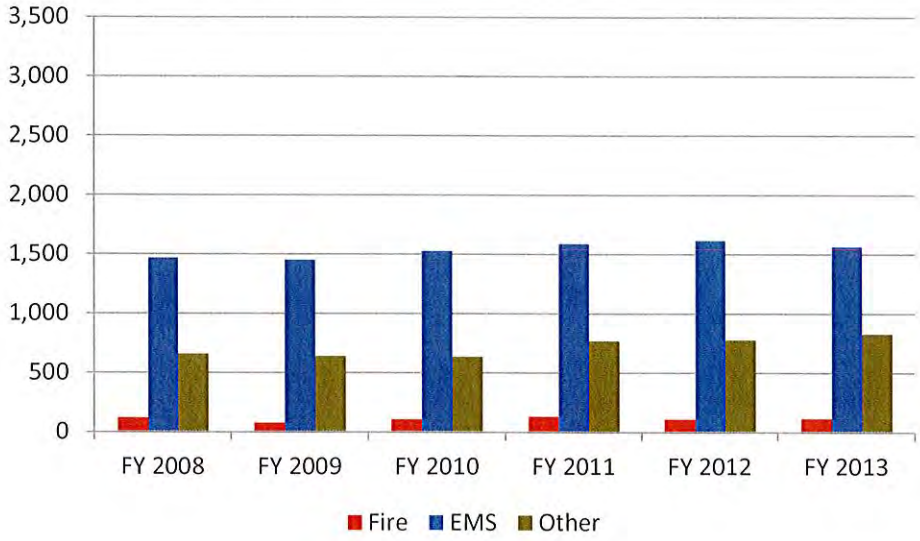
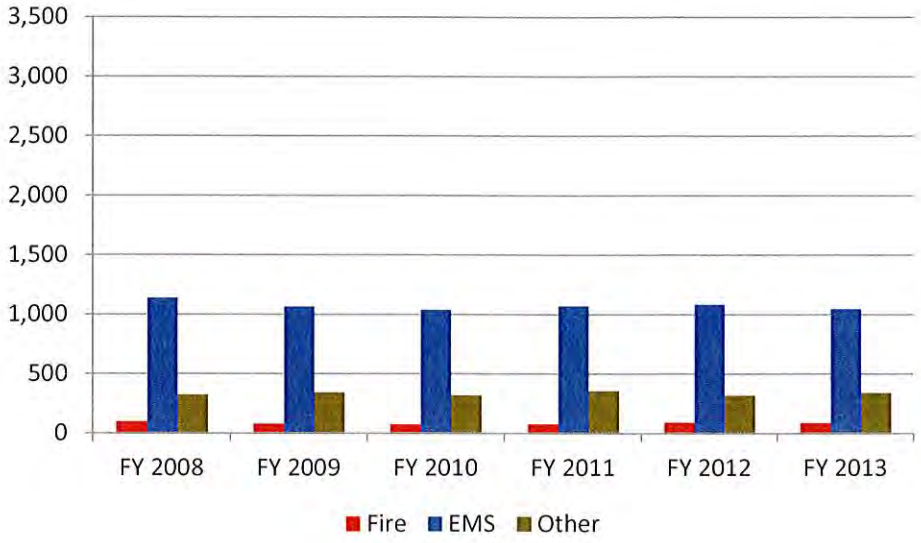


Figure 24: Service Demand by Incident Type – WFFD[25]



[24] Ibid.
[25] Ibid.

Figure 25: Service Demand by Incident Type – ZFD[26]

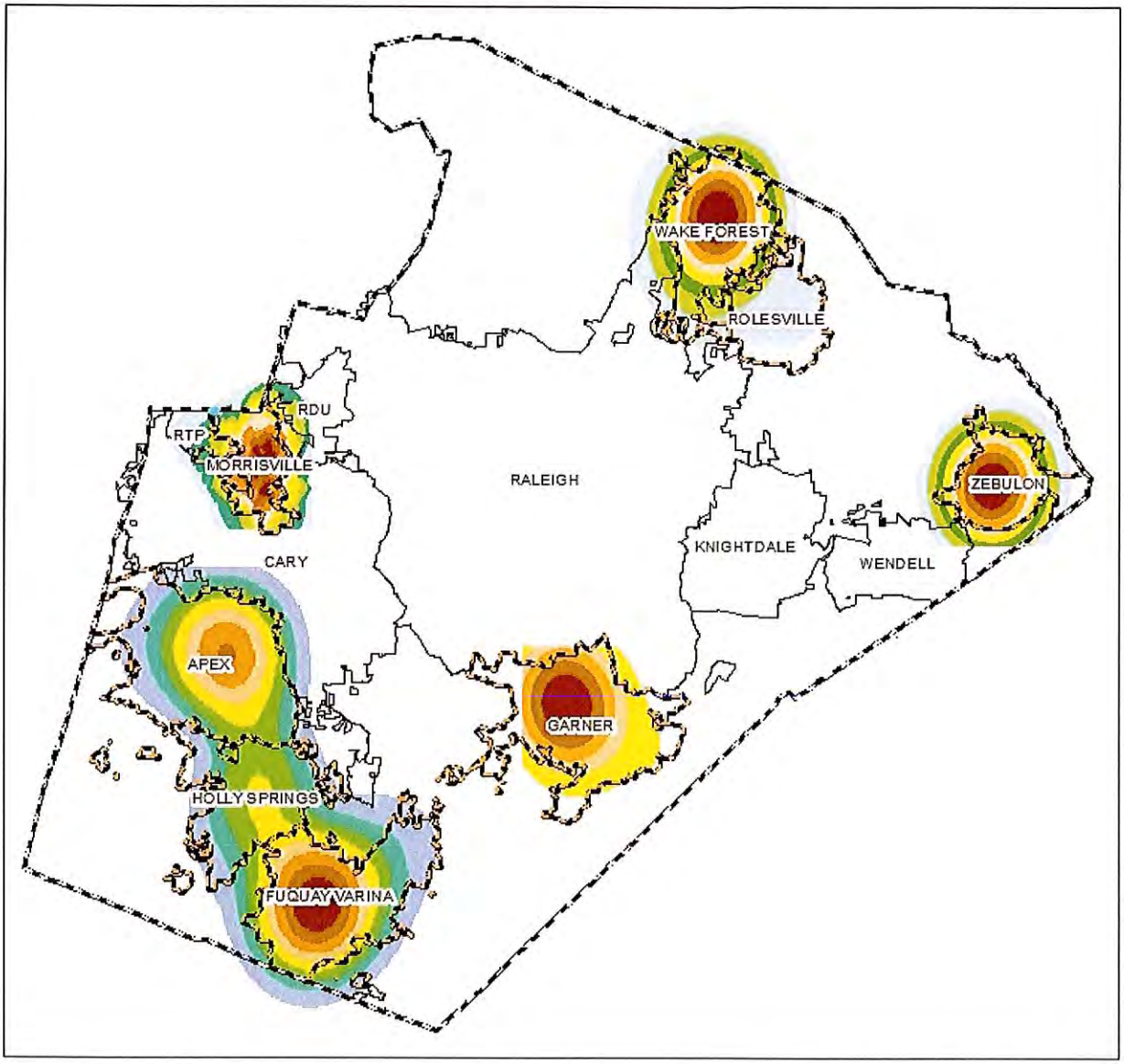


Based on service demand by incident type, each of the study agencies, with the exception of MFD, note medical (EMS) responses as their primary workload element. This is not uncommon for departments that participate actively in the EMS system within their communities. Due to the method by which MFD records incidents, Good Intent calls for service comprise a majority of the organization's workload. If these call types are removed, EMS incidents would dominate their service demand.

Aside from incident volume, it is also useful to identify where incidents are occurring so that physical resources can be deployed more appropriate to respond to the greatest number of incidents within a timely fashion. The figure below represents 2013 incident volume for the study area as a whole and can be read much like a weather radar with higher intensity colors indicating higher incident volumes.

[26] Ibid.

Figure 26: Geographic Service Demand



As expected, the heavier populated areas are experiencing a high service demand than the lower population areas. Service demand tends to be focused around the towns with limited sprawl into the surrounding areas.

Of the total service demand during calendar year 2013 of 18,574 incidents between the eight cost-share departments, GFR had the highest percentage of overall demand at 25.46 percent while RRFD had the lowest at 3.98 percent. Each department's percentage is illustrated in the figure below.

Figure 27: Overall Service Demand Distribution[27]

	2013 Demand	Percentage
Apex	2,353	12.67%
Fuquay-Varina	3,399	18.30%
Garner	4,729	25.46%
Holly Springs	1,525	8.21%
Morrisville	1,857	10.00%
Rolesville	739	3.98%
Wake Forest	2,504	13.48%
Zebulon	1,468	7.90%
Total	**18,574**	
Non Cost-Share Departments	10,107	35.23%

While total service demand can be used to determine how busy each department may be from an overall perspective, determining where that service demand is occurring is important to the cost share formula since demand is occurring not only in the municipalities but also in the unincorporated areas. Based on 2013 service demand data, the following figure illustrates how each study department's demand is distributed between the municipal and unincorporated response areas.

Figure 28: Municipal/Unincorporated Service Demand Distribution[28]

	Municipal Percentage	Unincorporated Percentage
Apex	35.40%	64.60%
Fuquay-Varina	44.50%	55.50%
Garner	36.10%	63.90%
Holly Springs	52.20%	47.80%
Morrisville	45.40%	54.60%
Rolesville	8.00%	92.0%
Wake Forest	53.80%	46.20%
Zebulon	13.10%	86.90%

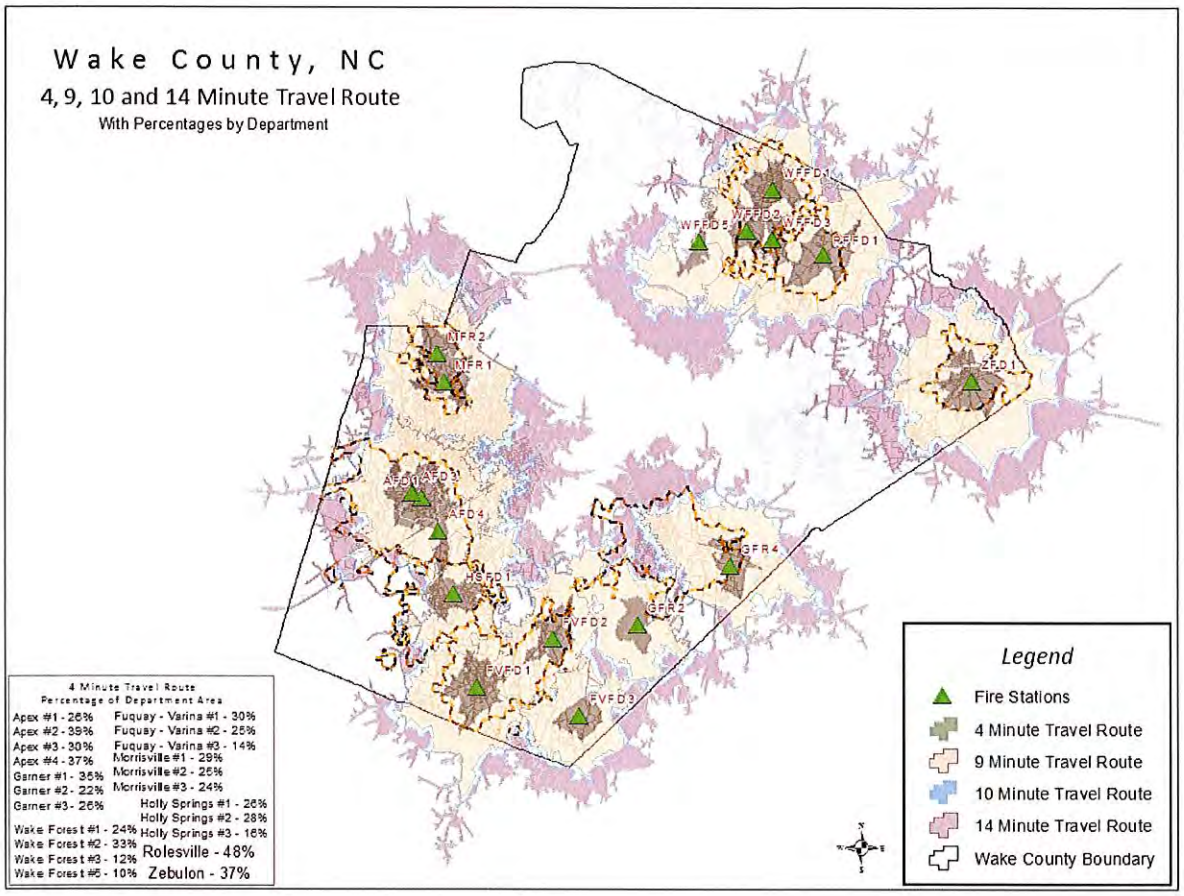
DISTRIBUTION

While service demand is an indicator of how busy a given department may be, how resources are deployed or distributed across the service area serves to determine how well they may perform in response to calls for service. Communities vary in degree of population density, structure density, service demand density and availability of resources and physical resources should be deployed in such a manner to reach the highest percentage of incidents. This is the basis of distribution analysis. ESCI uses geographical information system data to build travel models from each existing station location within

[27] Ibid.
[28] Ibid.

the study area. From this, it can be determined approximately how much area and historic service demand can be reached within certain time parameters. The figure below illustrates four, nine, 10 and 14 minute travel models from each existing study location.

Figure 29: Resource Deployment



Based on the travel models, each department can reach a certain amount of service demand within each scenario as presented below.

Figure 30: Percentage of Service Demand Covered – Current Deployment[29]

	4-Min	9-Min	10-Min	14-Min
Apex	30%	88%	89%	93%
Fuquay-Varina	36%	68%	72%	94%
Garner	29%	57%	58%	61%
Holly Springs	46%	86%	89%	96%
Morrisville	9%	55%	56%	57%
Rolesville	96%	100%	100%	100%
Wake Forest	5%	75%	95%	99%
Zebulon	67%	89%	89%	89%

As illustrated in the figure above, only RRFD can reach a significant amount of historic service demand within four minutes of travel. Within nine minutes of travel, FVFD, GFR and MFD have difficulty in reaching some of their response area. At 10 minutes of travel time, FVFD improves slightly but GFR and MFD still have difficulty. At 14 minutes of travel, only GFR and MFD still have difficulty in reaching a significant portion of their historic service demand. It should be noted here that, based on the way that some incidents are entered in the records management system, some incidents could not be mapped (approximately 15 percent or 2,448 incidents were not able to be geocoded). This number could impact the validity of this analysis.

RESPONSE PERFORMANCE

When discussing emergency services organizations, the primary issue of question is response performance. Response performance analysis evaluates how quickly an organization responds to an incident and is more commonly known as response time. The response time continuum, the time between when the caller dials 9-1-1 and when assistance arrives, is comprised of several different components:

- Processing Time – The amount of time between when a dispatcher answers the 9-1-1 call and resources are dispatched.
- Turnout Time – The amount of time between when units are notified of the incident and when they are en route.
- Travel Time – The amount of time the responding unit actually spends on the road to the incident.
- Response Time – A combination of turnout time and travel time and generally accepted as the most measurable element.

Other performance measurements are also valuable but not utilized in this analysis of staffing and deployment, such as:

- Patient Contact Time – The actual time personnel arrived at the patient and began treatment.

[29] ESCI generated data.

- Scene Time – The total amount of time resources have spent on the emergency scene prior to transport or clearing the incident.
- Transport Time – The total amount of travel time spent transporting the patient to a definitive care facility.
- Hospital Time – The total amount of time the transporting unit spent at the receiving facility before returning to service.
- Total Commit Time – The total amount of time between dispatch and clearing the incident.

Since each of the study agencies is dispatched by Raleigh-Wake Communications and has no direct impact on call-processing time and none of the agencies provide transport emergency medical services, the components evaluated in this section will be limited to turnout and total response. Before entering this discussion, however, ESCI felt it necessary to provide a brief discussion about how the statistical information is presented, particularly in regard to average versus percentile measures.

The 'average' measure is a commonly used descriptive statistic also called the mean of a data set. It is a measure which is a way to describe the central tendency, or the center of a data set. The average is the sum of all the points of data in a set divided by the total number of data points. In this measurement, each data point is counted and the value of each data point has an impact on the overall performance. Averages should be viewed with a certain amount of caution because the average measure can be skewed if an unusual data point, known as an outlier, is present within the data set. Depending on the sample size of the data set, this skewing can be either very large or very small.

As an example, assume that a particular station with a response time objective of six minutes or less had five calls on a particular day. If four of the calls had a response time of eight minutes while the other call was across the street and only a few seconds away, the average would indicate the station was achieving its performance goal. However, four of the five calls, or 80 percent, were beyond the stated response time performance objective.

The reason for computing the average is because of its common use and ease of understanding. The most important reason for not using averages for performance standards is that it does not accurately reflect the performance for the entire data set.

With the average measure, it is recognized that some data points are below the average and some are above the average. The same is true for a median measure which simply arranges the data set in order and finds the value in which 50 percent of the data points are below the median and the other half are above the median value. This is also called the 50^{th} percentile.

When dealing with percentiles, the actual value of the individual data does not have the same impact as it did in the average. The reason for this is that the percentile is nothing more than the ranking of the data set. The 90^{th} percentile means that 10 percent of the data is greater than the value stated and all other data is at or below this level.

Higher percentile measurements are normally used for performance objectives and performance measurement because they show that the large majority of the data set has achieved a particular level of performance. This can then be compared to the desired performance objective to determine the degree of success in achieving the goal.

For this analysis, ESCI was most interested in the ability to respond the appropriate resources to the highest percentage of incidents. For this reason, ESCI analyzed several datasets provided by Wake County including computer aided dispatch (CAD) and National Fire Incident Reporting System (NFIRS) data and generated average, 80th and 90th percentile response performance for emergency incidents only.

The second element of the response time continuum is that of turnout; the time between when personnel are notified of an incident and when they are en route. For career fire departments, *NFPA 1710* recommends that units are en route to emergency incidents within 60 seconds for medical responses and 1:20 (1 minute 20 seconds) for fire responses, both when measured at the 90th percentile. While *NFPA 1720* does not provide for a turnout time performance measure for volunteer and/or combination fire departments, each study department maintains personnel in a ready status at their stations, thus the career standard has been applied. Turnout time performance, as extracted from the provided CAD data is provided in the following figure.

Figure 31: Turnout Time, Average & 90th Percentile[30]

	Average	80th	90th
AFD	0:01:16	0:01:46	0:02:11
FVFD	0:01:05	0:01:33	0:01:57
GFR	0:01:17	0:01:44	0:02:11
HSFD	0:01:27	0:02:01	0:02:29
MFD	0:00:53	0:01:10	0:01:23
RRFD	0:01:14	0:01:44	0:02:19
WFFD	0:01:12	0:01:38	0:02:03
ZFD	0:01:20	0:01:49	0:02:34

Wake County Communications enters the dispatch time when the call is placed in queue for dispatch. This doesn't necessarily translate into an actual dispatch of the appropriate units. Due to the queueing within the dispatch center, turnout times may appear to be extended when, in reality, units are responding much quicker than appears from CAD timestamps.

NFPA 1710 also suggests that EMS responses receive a shorter turnout time performance than do fires. The standard recommends that turnout time performance for EMS be established at 60 seconds while turnout time performance for fires be established at 80 seconds, when measure at the 90th percentile. This difference allows additional time for personnel to don protective gear that is not necessarily

[30] ESCI generated data based on dispatch data provided by Wake County Emergency Communications Center.

needed for medical responses. The figure below provides a summary of the department's turnout time performance in relation to these two recommendations.

Figure 32: Turnout Time Performance by Type of Incident[31]

	Fire			Medical		
	Average	80th	90th	Average	80th	90th
AFD	0:01:30	0:02:03	0:02:42	0:01:13	0:01:38	0:02:06
FVFD	0:01:15	0:01:43	0:02:15	0:01:07	0:01:33	0:02:01
GFD	0:01:48	0:02:25	0:03:35	0:01:13	0:01:41	0:02:06
HSFD	0:01:33	0:02:13	0:03:00	0:01:27	0:02:02	0:02:31
MFD	0:00:59	0:01:18	0:01:38	0:00:49	0:01:03	0:01:18
RVFD	0:03:01	0:05:33	0:07:12	0:01:09	0:01:40	0:02:11
WFFD	0:01:21	0:01:51	0:02:18	0:01:09	0:01:32	0:01:59
ZFD	0:02:04	0:02:32	0:03:41	0:01:12	0:01:29	0:02:23

The departments should be vigilant in reviewing and distributing turnout time performance information and allow individual companies to implement policies to improve their performance.

The final component of response performance is that of overall response. In many cases, a single unit can handle an emergency incident such as a trash fire, small grass fire, medical incident, etc. In evaluating response performance, ESCI analyzed each department's dispatch data to ensure that the most accurate data was being used rather than relying on summary reports generated by either the communications center or individual departments.

NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments[32] includes a performance objective of 240 seconds or less travel time for the arrival of the first arriving engine company in urban areas serviced by career fire departments.[33]*NFPA 1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer or Combination Fire Departments* recommends a response performance objective of 9 minutes or less when measured at the 90th percentile in urban areas, 10 minutes or less in suburban areas, and 14 minutes or less in rural areas served by volunteer or combination fire departments. *NFPA 1710* does not differentiate between the various population densities and assumes that all areas served by career or mostly career fire departments will adhere to a single performance objective.

[31] Ibid.

[32] *NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.* (National Fire Protection Association 2010.)

[33] *NFPA 1720, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operatians ta the Public by Volunteer and Combination Fire Departments.*(National Fire Protection Association 2010.)

Response data was obtained from each organization as well as dispatch data from Wake County Emergency Communications. The data was 'cleaned' of outliers and other data entry errors as well as non-emergency and mutual aid responses to generate emergency response performance analysis based on the most accurate data available. The following figures illustrate each department's overall response performance measured at the average, 80th, and 90th percentile.

Figure 33: Overall Response Performance[34]

	Average	80th	90th
AFD	0:05:07	0:06:41	0:07:58
FVFD	0:05:04	0:06:45	0:07:55
GFR	0:05:25	0:07:08	0:08:25
HSFD	0:05:03	0:06:37	0:07:51
MFD	0:05:03	0:06:33	0:07:50
RRFD	0:04:36	0:06:09	0:07:18
WFFD	0:05:17	0:06:44	0:08:16
ZFD	0:04:57	0:06:21	0:07:32

It is ESCI's opinion that the study departments should be using a mix of *NFPA 1710* and NFPA 1720 as their guide to response performance or at least use this standard as a basis for developing local response performance objectives that are better suited to the risks within the community. While most of the departments rely on career personnel for the primary response, each department does cover a variety of population densities, with more sparsely populated areas in the outer fringe areas of their respective response areas. The county should consider implementing tiered response performance objectives for the various population densities throughout the unincorporated areas.

[34] ESCI generated data based on dispatch data provided by Wake County Emergency Communications Center.

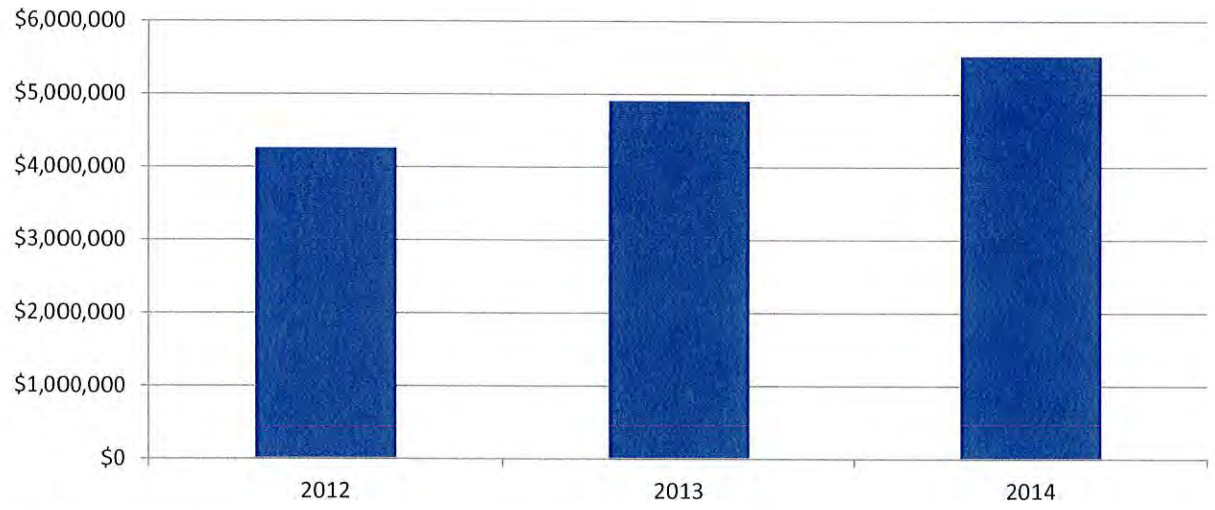
Current Departmental Budgets and Revenues

Although service demand is important to the public, the business of an emergency services organization is equally important to those that are tasked with managing the organization. Without appropriate funding, services cannot be provided at the desired level. This section reviews each study departments overall budget and revenues based on documentation provided by Wake County and the individual departments and/or municipalities.

Town of Apex Fire Department

Over the past three years, AFD has seen an increase of approximately 29.7 percent in their overall operating budget as illustrated in the following figure.

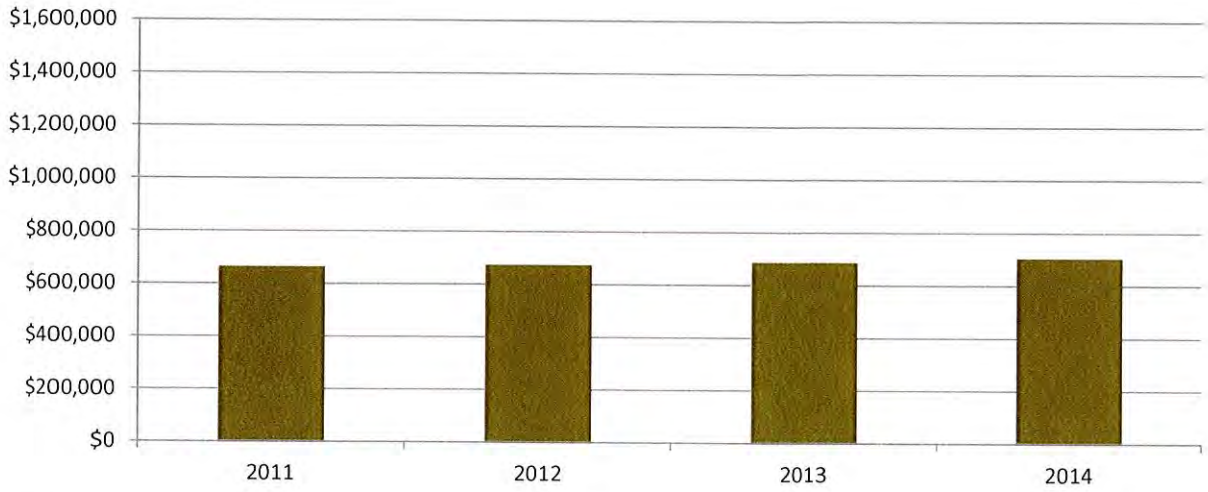
Figure 34: Historical Budget - AFD[35]



As compared to the overall town general fund budget, the fire department comprises approximately 15.3 percent. From a revenue perspective, the most prominent source of revenue is ad valorem taxes generated from property and vehicle taxes within the town. During fiscal year 2014, the town received $703,754 from the fire tax levy reducing the overall town tax burden for fire protection to $4,818,303. Over the past four years, the revenue generated from the fire district has increased only six percent as illustrated below.

[35] Agency provided information.

Figure 35: Historical Fire Tax Allocation - AFD[36]



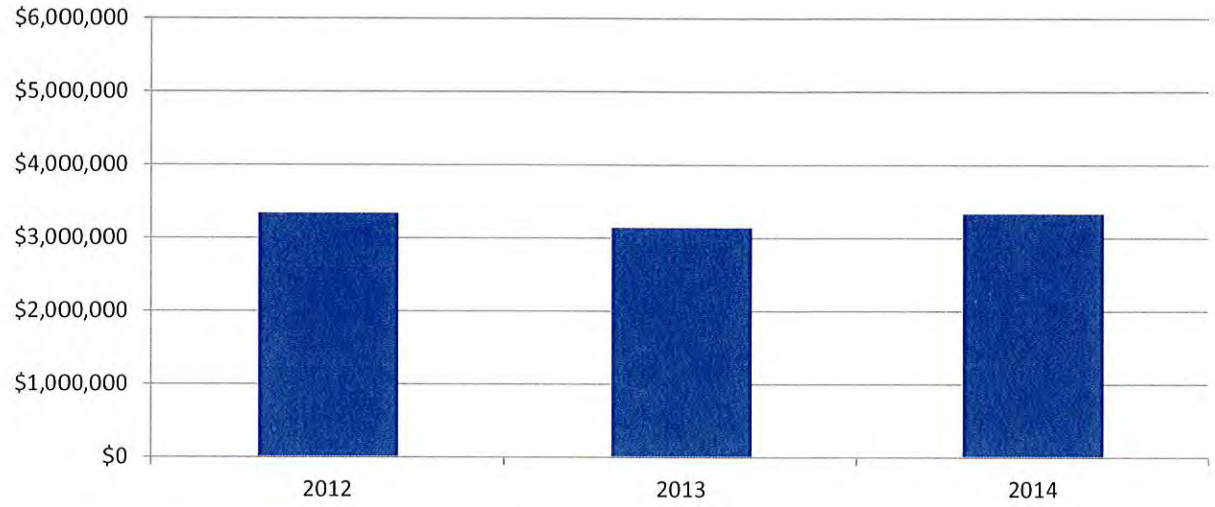
As of the 2014 budget, the property tax levy was $0.39 per $100 of valuation while the vehicle tax levy was $0.34 per $100. Given the total valuation of the town of $4,571,956,387, an equivalent tax rate for fire protection would be estimated at approximately $0.105 per $100 of valuation. The unincorporated area served by AFD has an estimated total valuation of $1,234,690,771 or 21.3 percent of the total valuation protected. AFD is currently a 20 percent cost-share department.

Town of Fuquay-Varina Fire Department

Over the past three years, FVFD has seen a decline of approximately 0.2 percent in their overall operating budget as illustrated in the following figure.

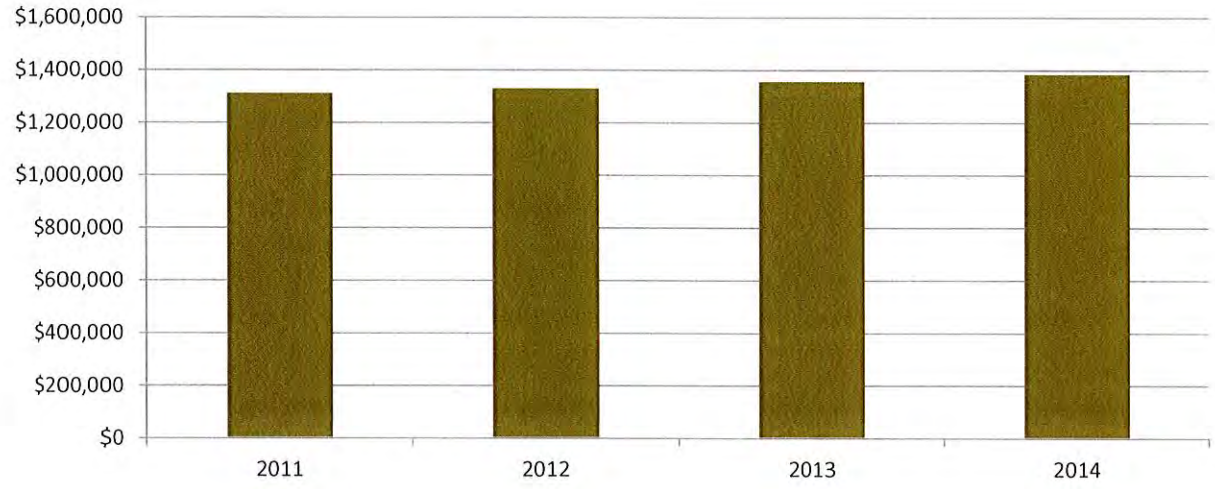
[36] Ibid.

Figure 36: Historical Budget - FVFD[37]



As compared to the overall town general fund budget, the fire department comprises approximately 18.2 percent. From a revenue perspective, the most prominent source of revenue is ad valorem taxes generated from real and personal property taxes within the town. The department does not charge for response services but does gain some revenue from permitting and code enforcement activities. This revenue, however, goes back to the city's general fund. During fiscal year 2014, the town received $1,382,314 from the fire tax levy reducing the overall town tax burden for fire protection to $1,948,813. Over the past four years, the revenue generated from the fire district has increased only 5.5 percent as illustrated below.

Figure 37: Historical Fire Tax Allocation - FVFD[38]



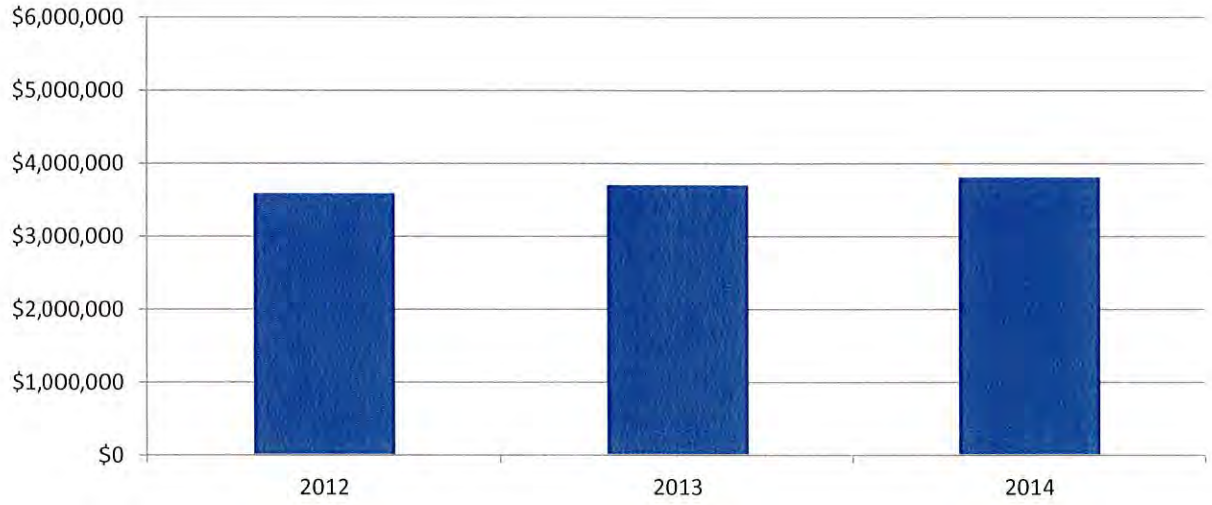
[37] Ibid.
[38] Ibid.

As of the 2014 budget, the property tax levy was $0.385 per $100 of valuation for both real and personal property. Given the total valuation of the town of $2,282,181,871, an equivalent tax rate for fire protection would be estimated at approximately $0.085 per $100 of valuation. The unincorporated area served by FVFD has an estimated total valuation of $2,475,454,348 or 52.0 percent of the total valuation protected. FVFD is currently a 47 percent cost-share department.

Garner Fire-Rescue

Over the past three years, GFR has seen an increase of approximately 6.1 percent in their overall operating budget as illustrated in the following figure.

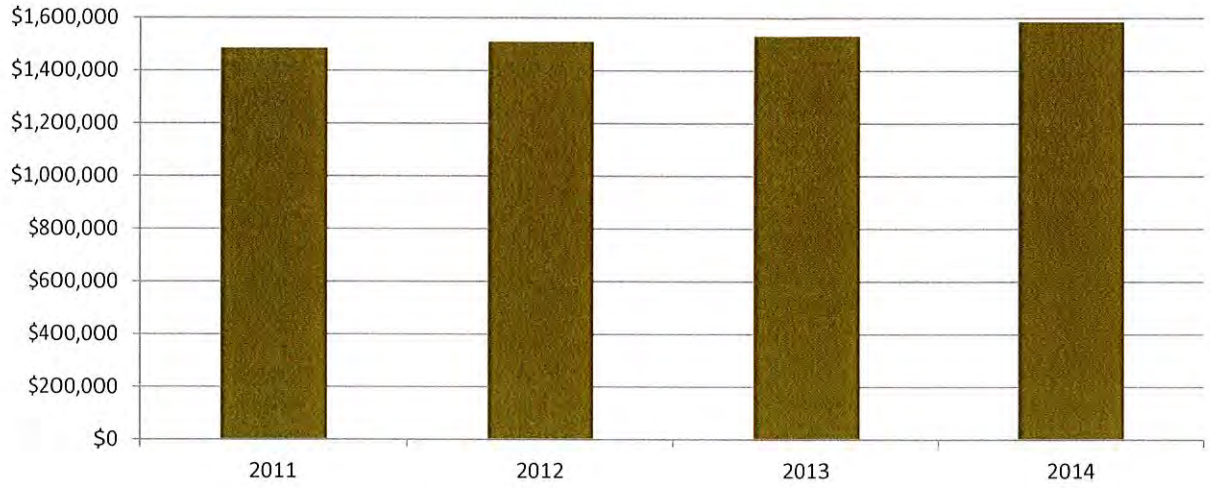
Figure 38: Historical Budget - GFR[39]



Considering that GFR is not a town general fund department, comparing this department to the other municipal departments would not generate the same conclusions. However, since the town does contribute to the total budget of the fire department, some conclusions can be drawn as have been presented previously. Based on the fiscal year 2014 budget, the town contributed $2,181,020 to the fire department budget with $1,585,686 coming from the county fire district. The town also pays $77,027 to other agencies for dispatch and radio services within the town limits. As compared to the overall town general fund budget, the fire department comprises 7.9 percent. All revenues, with the exception of those stated above, are from ad valorem dollars whether from the town or from the county fire district and the department does not charge for services. During fiscal year 2014, the department received $1,585,686 from the county fire tax levy. Since the department is not a municipal organization, this contribution did not reduce the tax burden on the town. Over the past four years, the revenue generated from the fire district has increased only 6.8 percent as illustrated below.

[39] Ibid.

Figure 39: Historical Fire Tax Allocation - GFR[40]



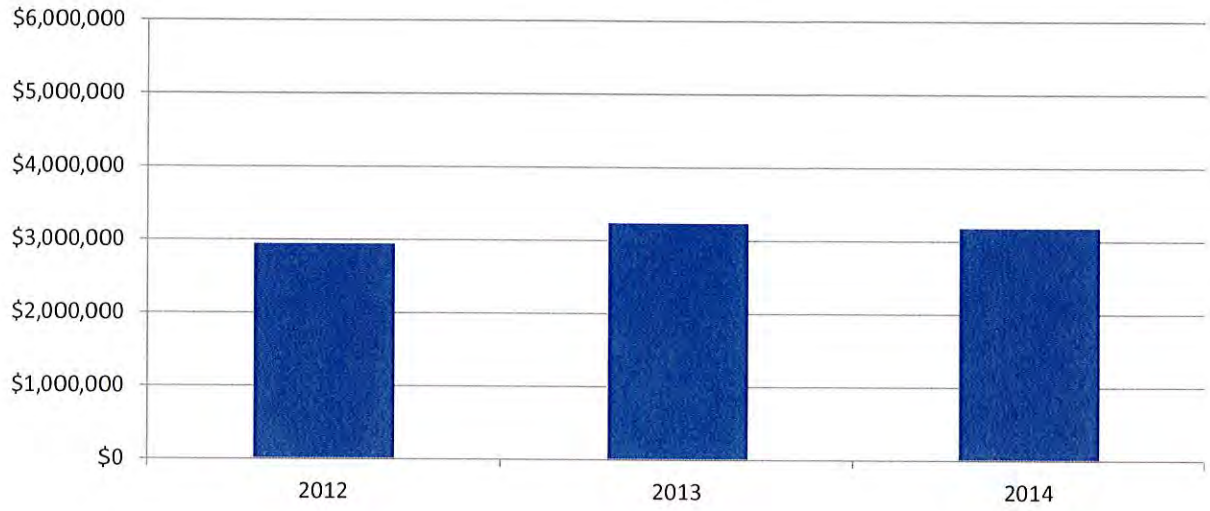
As of the 2014 budget, the property tax levy in the town was $0.49 per $100 of valuation for both real and personal property. Given the total valuation of the town of $3,147,300,000, an equivalent tax rate for fire protection would be estimated at approximately $0.075 per $100 of valuation. The unincorporated area served by GFR has an estimated total valuation of $2,765,230,826 or 46.8 percent of the total valuation protected. GFR is currently a 45.3 percent cost-share department. However, Station 3 is cost-shared at 85 percent with the town contributing 15 percent and the town is responsible for 100 percent of the salary for seven firefighters and an executive assistant and the county pays 100 percent of the salary for one firefighter.

Town of Holly Springs Fire Department

Over the past three years, HSFD has seen an increase of approximately 8.2 percent in their overall operating budget as illustrated in the following figure.

[40] Ibid.

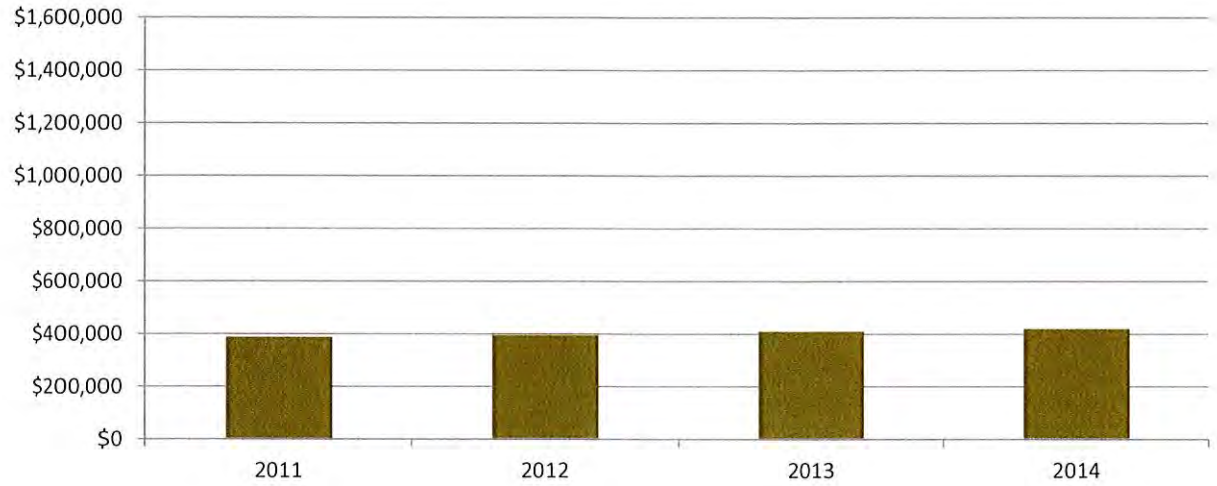
Figure 40: Historical Budget - HSFD[41]



As compared to the overall town general fund budget, the fire department comprises approximately 11.7 percent. From a revenue perspective, the most prominent source of revenue is ad valorem taxes generated from real and personal property taxes within the town. The department does not charge for response services but does gain some revenue from permitting and code enforcement activities. During fiscal year 2014, the town received $419,238 from the fire tax levy reducing the overall town tax burden for fire protection to $2,758,087. Over the past four years, the revenue generated from the fire district has increased 8.0 percent as illustrated below.

[41] Ibid.

Figure 41: Historical Fire Tax Allocation - HFD[42]



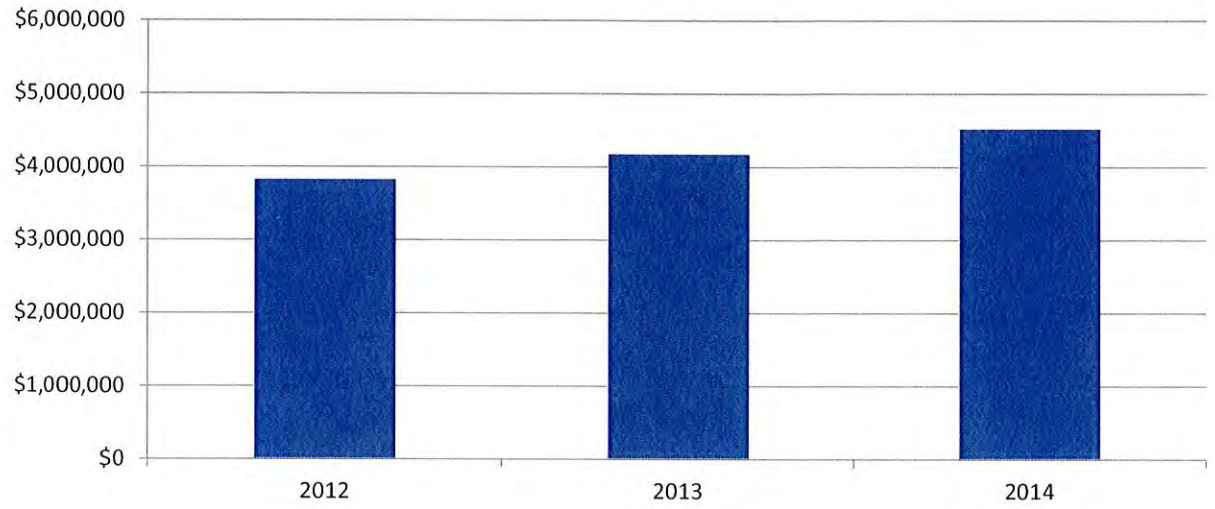
As of the 2014 budget, the property tax levy in the town was $0.435 per $100 of valuation for both real and personal property. Given the total valuation of the town of $3,329,497,568, an equivalent tax rate for fire protection would be estimated at approximately $0.083 per $100 of valuation. The unincorporated area served by HSFD has an estimated total valuation of $582,844,729 or 14.9 percent of the total valuation protected. HSFD is currently a 22 percent cost-share department.

Town of Morrisville Fire Department

Over the past three years, MFD has seen an increase of approximately 18.3 percent in their overall operating budget as illustrated in the following figure.

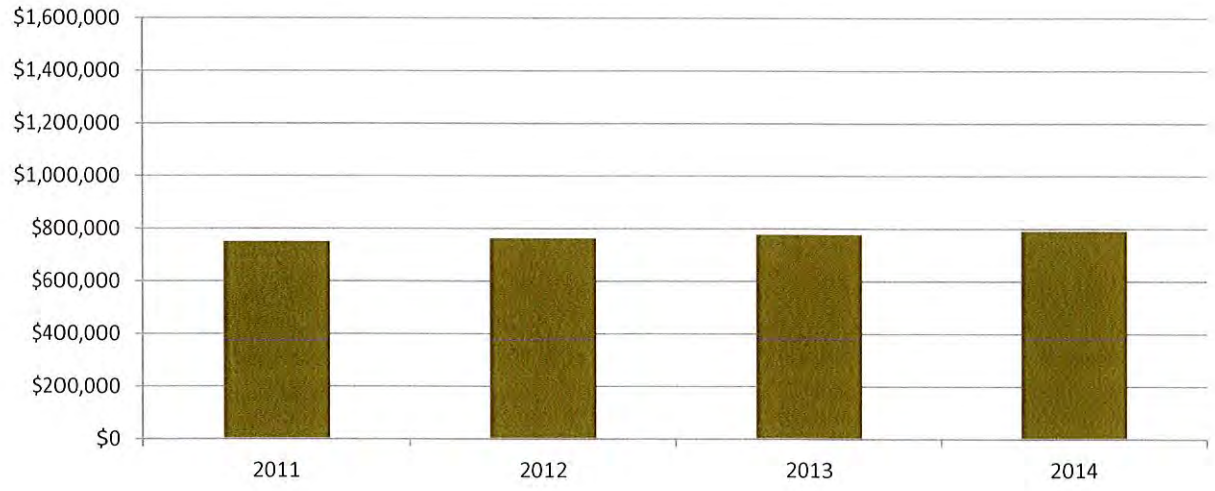
[42] Ibid.

Figure 42: Historical Budget - MFD[43]



As compared to the overall town general fund budget, the fire department comprises approximately 17.0 percent. From a revenue perspective, the most prominent source of revenue is ad valorem taxes generated from real and personal property taxes within the town. The department does not charge for response services but does gain some revenue from permitting and code enforcement activities within the town. During fiscal year 2014, the town received $789,245 from the fire tax levy reducing the overall town tax burden for fire protection to $3,730,024. Over the past four years, the revenue generated from the fire district has increased 8.0 percent as illustrated below.

Figure 43: Historical Fire Tax Allocation - MFD[44]



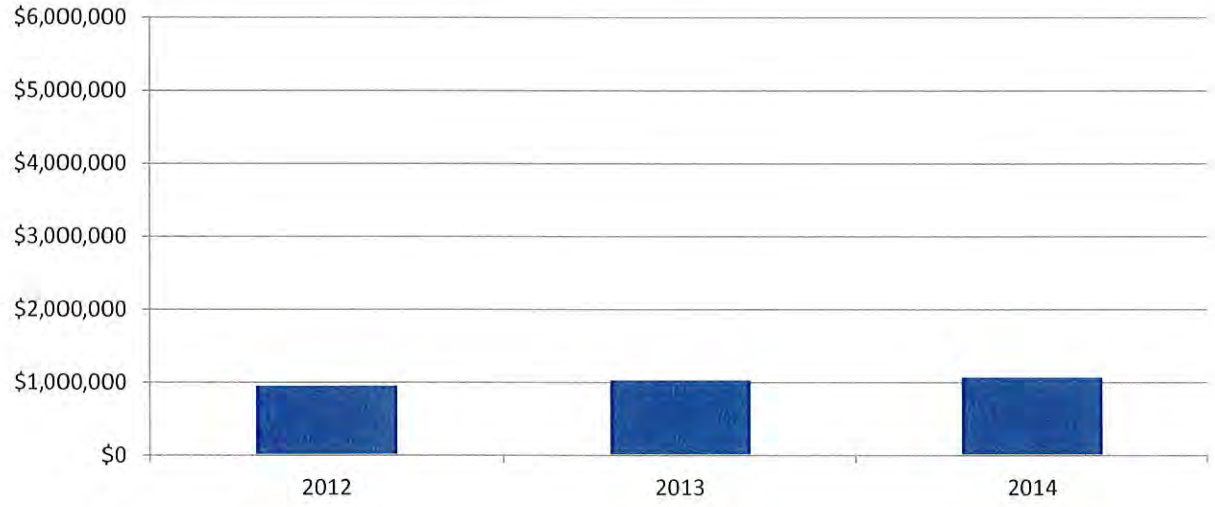
[43] Ibid.
[44] Ibid.

As of the 2014 budget, the property tax levy in the town was $0.39 per $100 of valuation for both real and personal property. Given the total valuation of the town of approximately $3,598,200,821, an equivalent tax rate for fire protection would be estimated at approximately $0.104 per $100 of valuation. The unincorporated area served by MFD has an estimated total valuation of $1,251,339,757 or 25.9 percent of the total valuation protected. MFD is currently a 21 percent cost-share department.

Rolesville Rural Fire Department

Over the past three years, RRFD has seen an increase of approximately 12.2 percent in their overall operating budget as illustrated in the following figure.

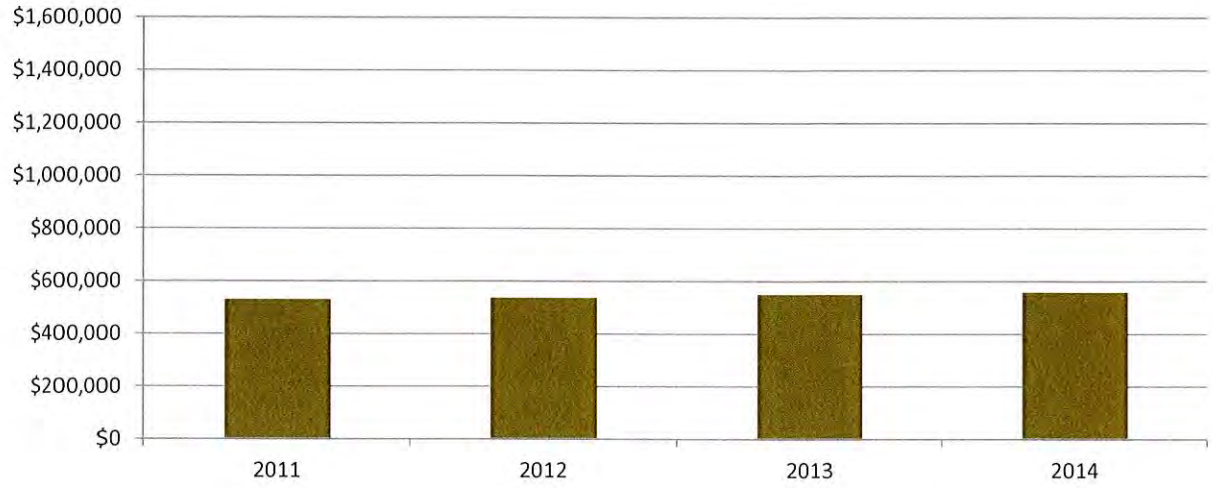
Figure 44: Historical Budget - RRFD[45]



As compared to the overall town general fund budget, the fire department comprises approximately 26.2 percent but only a portion of the fire department's budget comes from the town. Considering the town allocation to RRFD, the percentage of the overall town budget is reduced to approximately 12.5 percent. Although not a town general fund department, the town dedicates a certain portion of the overall ad valorem levy to support the fire department. The department does not charge for response services and all inspections are completed by Wake County personnel. During fiscal year 2014, the department received $556,822 from the fire tax levy. This reduced the overall town tax burden for fire protection to $508,540. Over the past four years, the revenue generated from the fire district has increased 5.1 percent as illustrated below.

[45] Ibid.

Figure 45: Historical Fire Tax Allocation - RRFD[46]



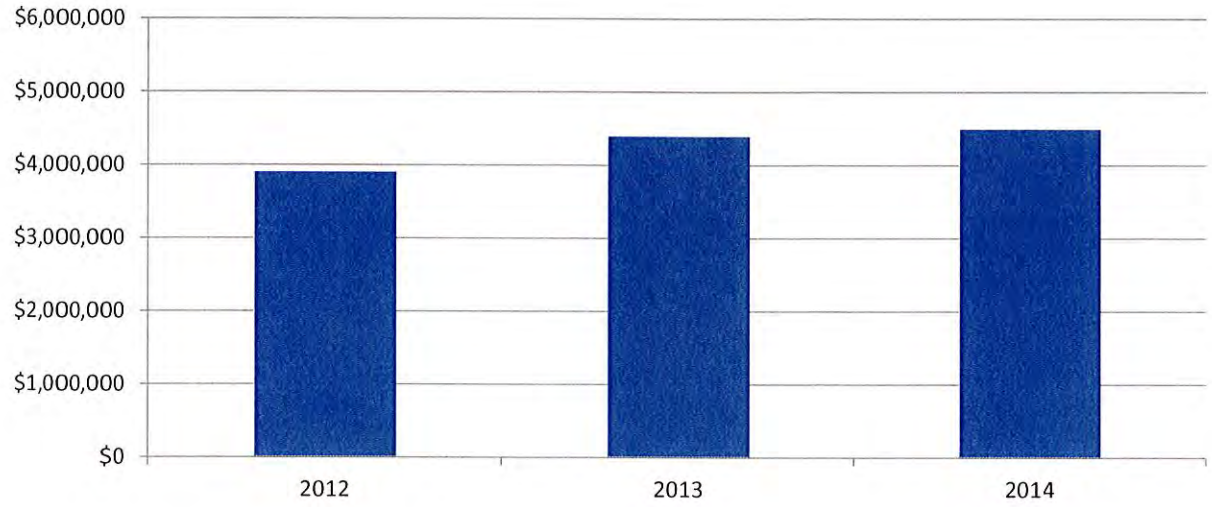
As of the 2014 budget, the property tax levy in the town was $0.44 per $100 of valuation for both real and personal property. Given the total valuation of the town of approximately $552,899,858, an equivalent tax rate for fire protection would be estimated at approximately $0.092 per $100 of valuation. The unincorporated area served by RRFD has an estimated total valuation of $1,092,924,713 or 66.4 percent of the total valuation protected. RRFD is currently an 82 percent cost-share department.

Wake Forest Fire Department

Over the past three years, WFFD has seen an increase of approximately 15.1 percent in their overall operating budget as illustrated in the following figure.

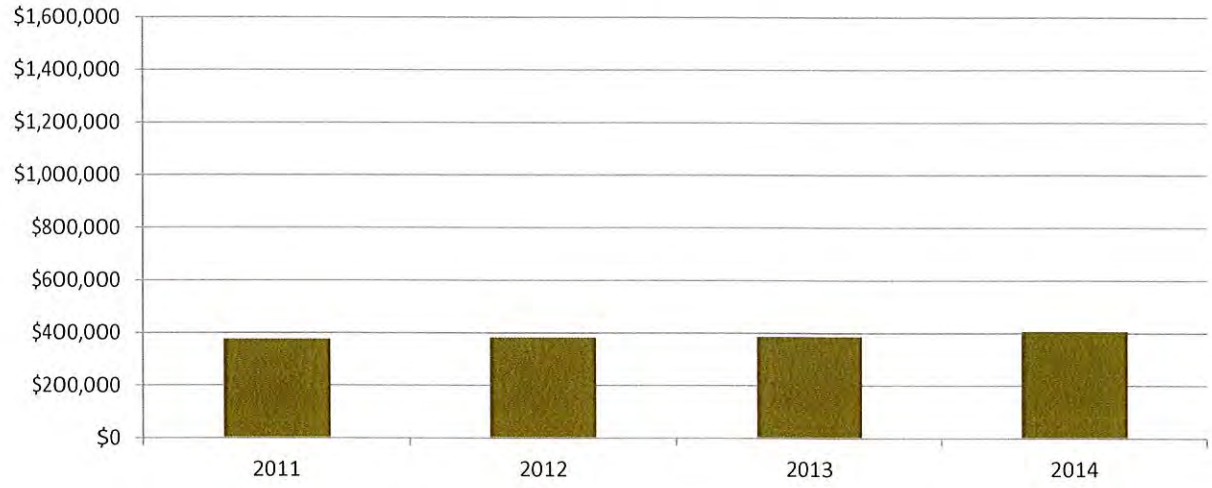
[46] Ibid.

Figure 46: Historical Budget - WFFD[47]



As compared to the overall town general fund budget, the fire department comprises approximately 13.4 percent. Although not a town general fund department, the town dedicates a certain portion of the overall ad valorem levy to support the fire department. The department does not charge for response services and all inspections are completed by Wake County personnel. During fiscal year 2014, the department received $405,583 from the fire tax levy. Over the past four years, the revenue generated from the fire district has increased 8.0 percent as illustrated below.

Figure 47: Historical Fire Tax Allocation - WFFD[48]



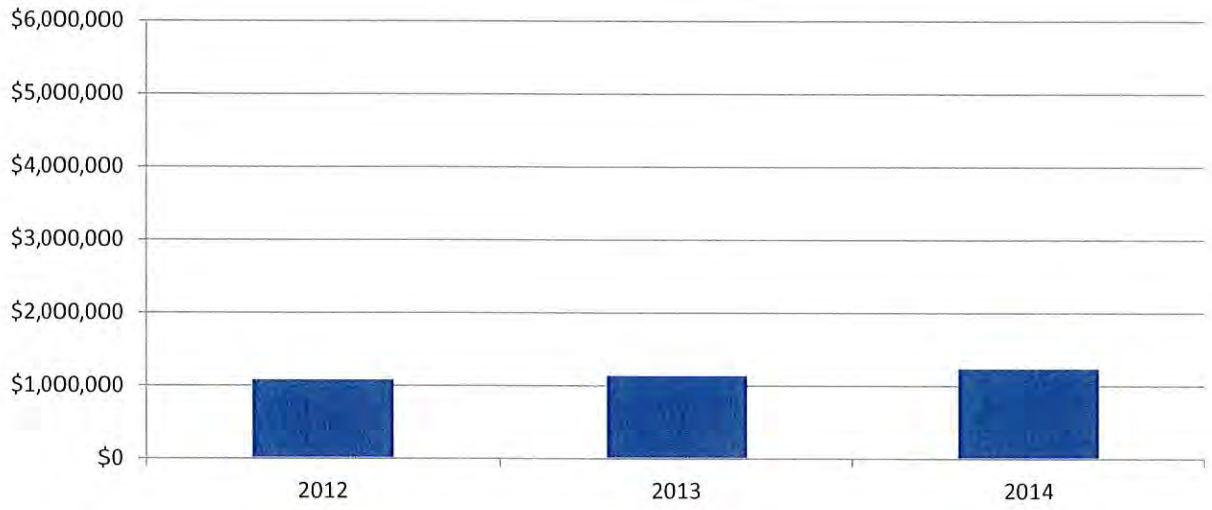
[47] Ibid.
[48] Ibid.

As of the 2014 budget, the property tax levy in the town was $0.51 per $100 of valuation for both real and personal property. Given the total valuation of the town of approximately $3,973,139,065, an equivalent tax rate for fire protection would be estimated at approximately $0.103 per $100 of valuation. The unincorporated area served by WFFD has an estimated total valuation of $1,398,318,341 or 26.0 percent of the total valuation protected. WFFD is currently a 22.9 percent cost-share department, however, this percentage is only applied to Stations 1 and 2. Station 3 is funded completely by the town while Station 5 is funded completely by the county. In addition, the aerial is funded completely by the town.

Town of Zebulon Fire Department

Over the past three years, ZFD has seen an increase of approximately 15.1 percent in their overall operating budget as illustrated in the following figure.

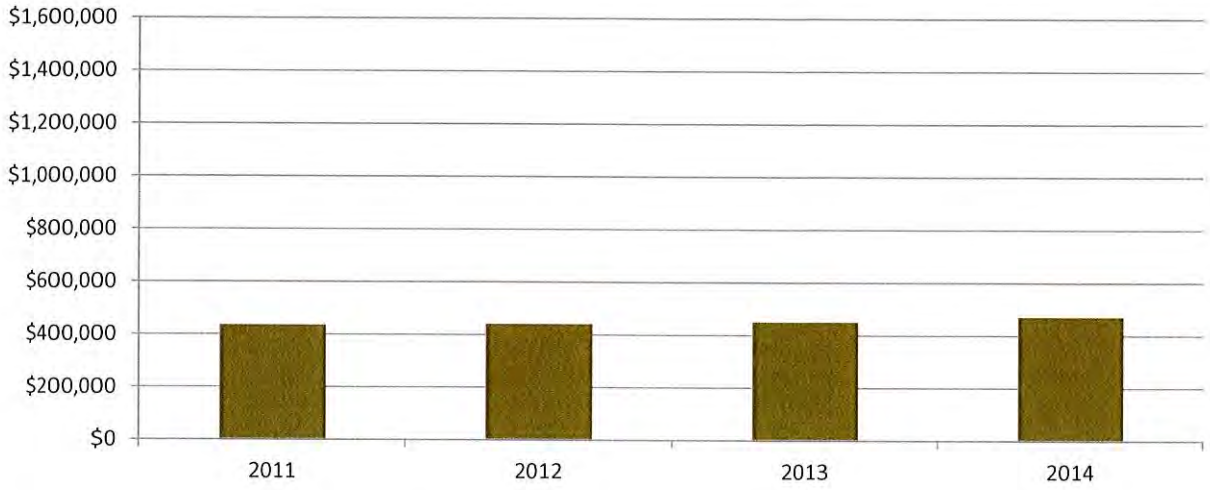
Figure 48: Historical Budget - ZFD[49]



As compared to the overall town general fund budget, the fire department comprises approximately 16.2 percent. The department does not charge for response services but some revenue is generated from code enforcement and inspections activities. During fiscal year 2014, the department received $469,528 from the fire tax levy. Over the past four years, the revenue generated from the fire district has increased 8.1 percent as illustrated below.

[49] Ibid.

Figure 49: Historical Fire Tax Allocation - ZFD[50]



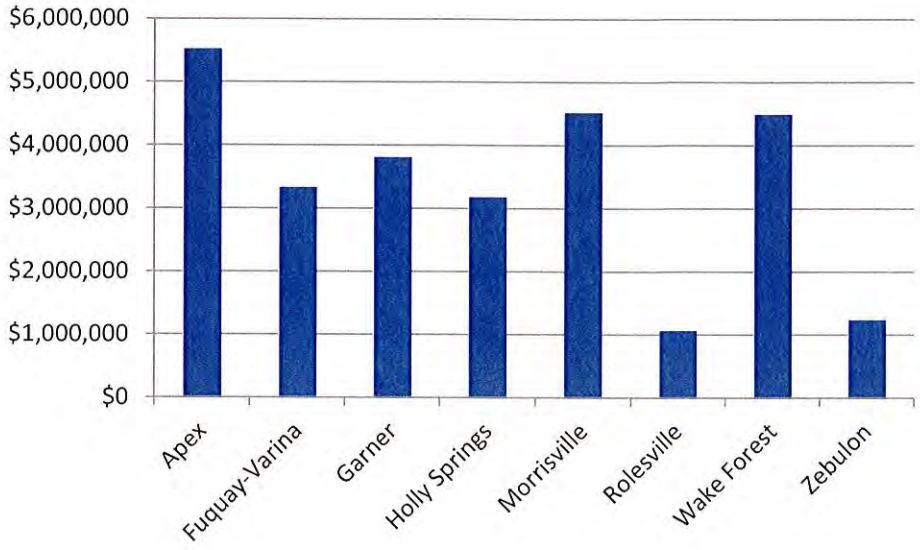
As of the 2014 budget, the property tax levy in the town was $0.525 per $100 of valuation for both real and personal property. Given the total valuation of the town of approximately $775,007,126, an equivalent tax rate for fire protection would be estimated at approximately $0.099 per $100 of valuation. The unincorporated area served by ZFD has an estimated total valuation of $519,326,804 or 40.1 percent of the total valuation protected. ZFD is currently a 50 percent cost-share department.

Summaries

The following figure considers the separate department budgets presented above and places them in a side-by-side comparison.

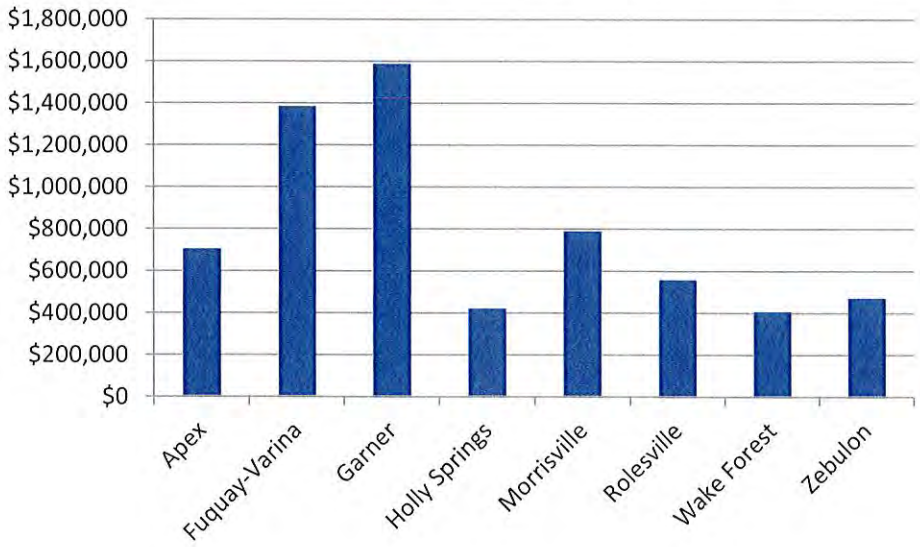
[50] Ibid.

Figure 50: Comparison of Total FD Budgets[51]



As can be seen in the figure above, AFD has the highest overall budget while RRFD has the lowest. The next figure considers the amount of the total budget of each department that comes from the county through the cost share agreements.

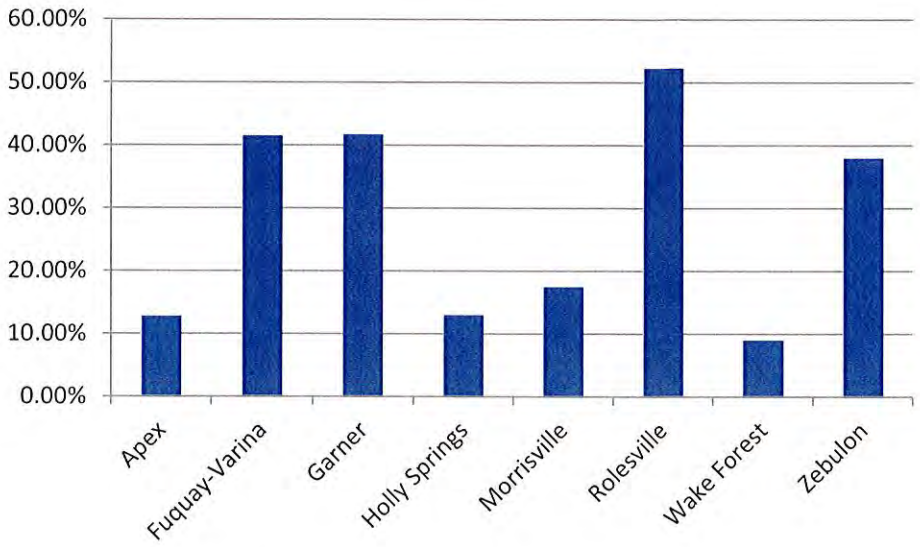
Figure 51: Comparison of County Funding Through Cost Share[52]



GFR has the highest gross level of county funding while HSFD has the lowest. However, as a percentage of total department budget, RRFD has the highest and WFFD has the lowest as illustrated below.

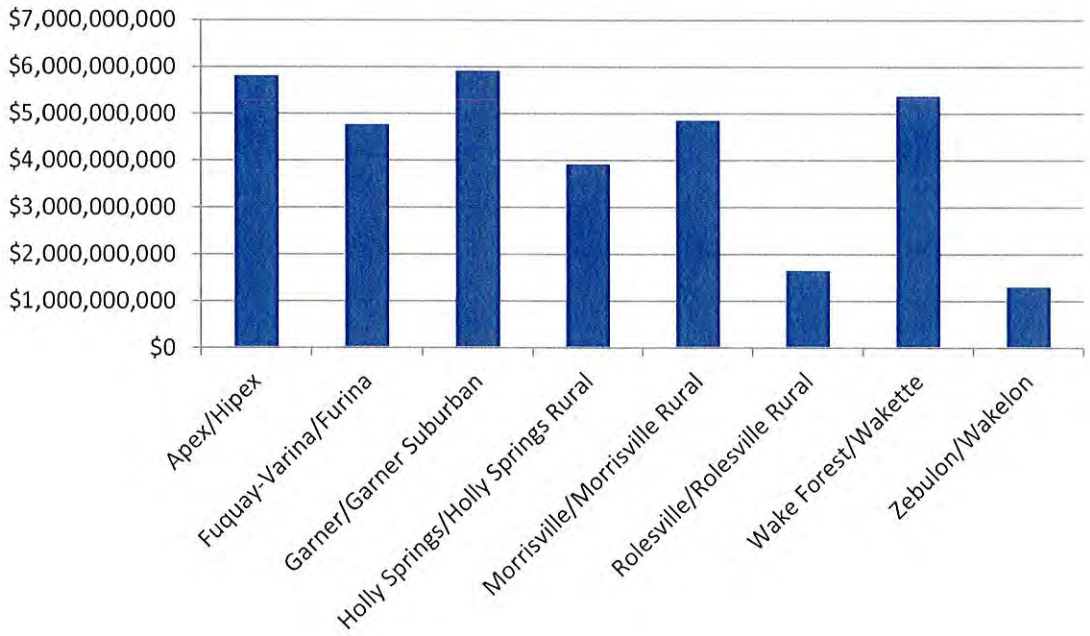
[51] Ibid.
[52] Wake County Fire Services.

Figure 52: Comparison of Percent of Total Budget from Cost Share[53]



Another factor that could be considered in developing a new cost share formula for the future is total valuation of the areas served by the cost share departments. The figure below illustrates how GFR protects the highest level of valuation while ZFD protects the lowest.

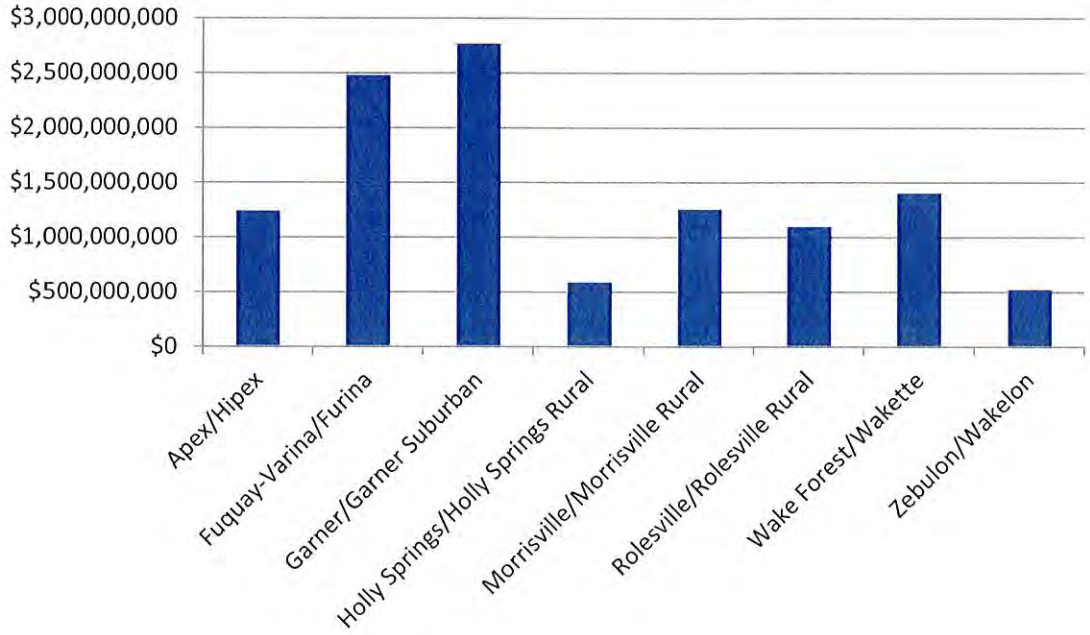
Figure 53: Comparison of Total Valuation[54]



[53] ESCI generated data.
[54] Ibid.

While the figure above provides a snapshot of total valuation throughout the entire service area of each cost share department, the intent of the cost share is to provide funding to departments that protect unincorporated areas of Wake County. The figure below illustrates the total valuation in the unincorporated areas served by each study agency.

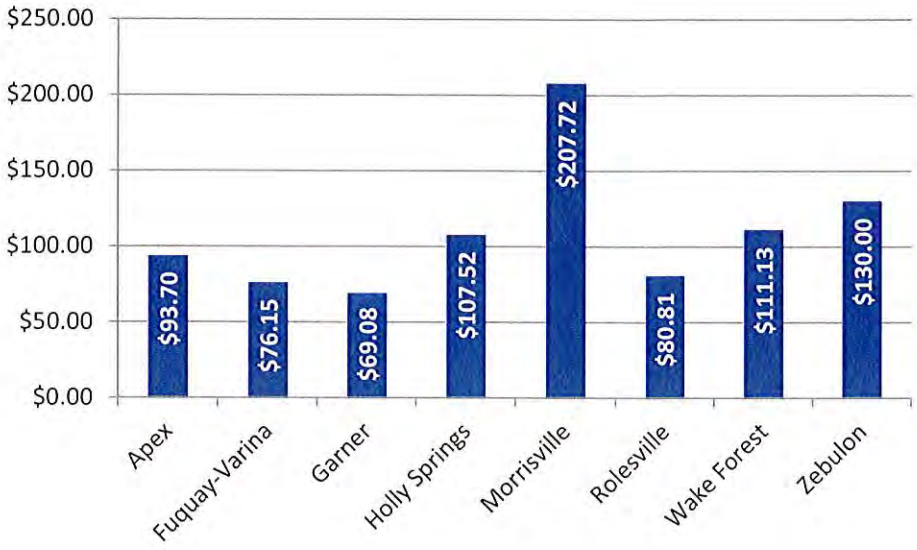
Figure 54: Comparison of Unincorporated Valuation[55]



As with total valuation, GFR has the highest amount of valuation in the unincorporated area that they protect while ZFD has the lowest. Additional methods to view the cost of providing services include evaluating cost per capita, cost per incident, cost per square mile and cost per $100 valuation. The figures below illustrate these factors.

[55] Wake County Fire Services.

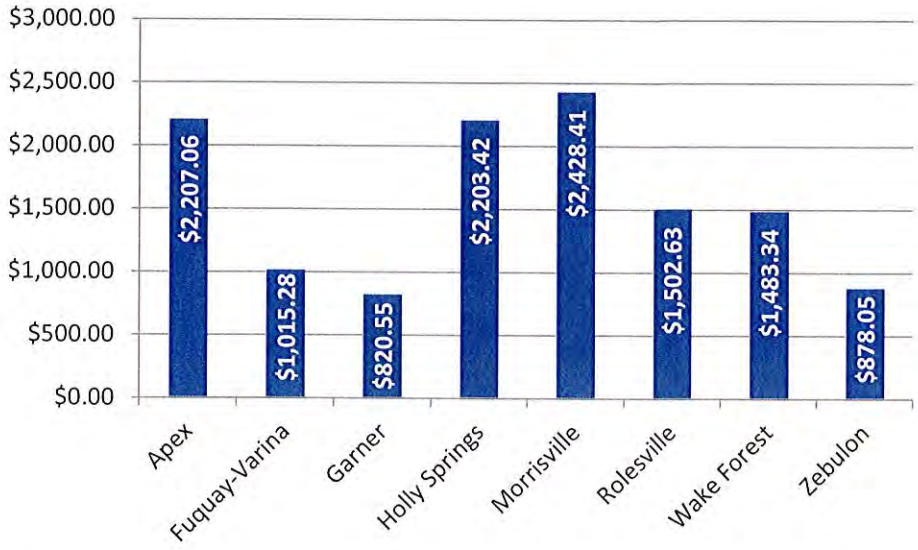
Figure 55: Cost per Capita[56]



As can be seen in the figure above, MFD has the highest cost per capita while GFR has the lowest. The national average cost per capita as reported by the National Fire Protection Association is $136.60. The North Carolina average calculates to $90.89. It should be noted that this benchmark comparison is based on resident population and does not consider commuters or other transient populations. Areas with a high density of commercial/industrial properties would have their costs spread across fewer residents while providing protection to a larger population base during normal working hours. The following figure illustrates the cost each department incurs based on each incident.

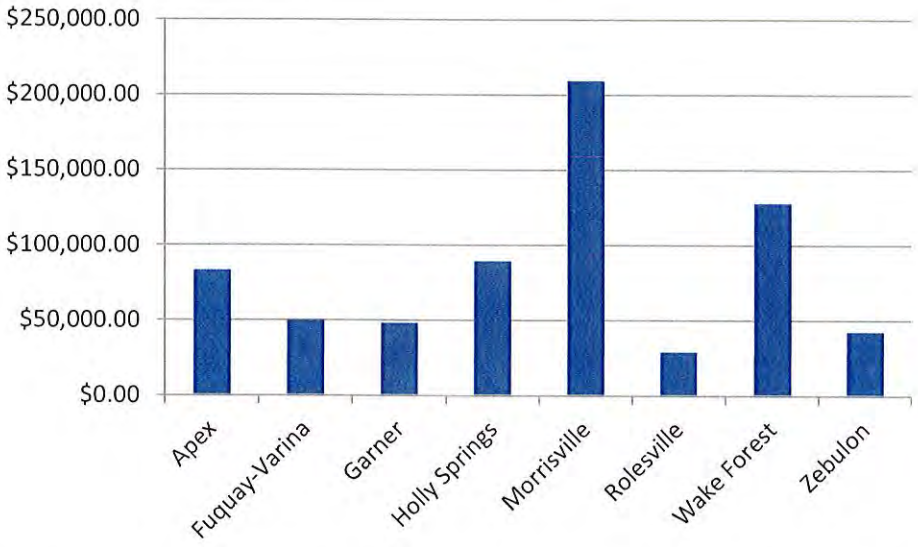
[56] ESCI generated data.

Figure 56: Cost per Incident[57]



MFD has the highest cost per incident while GFR has the lowest. The following figure is the final evaluation of cost and illustrates the cost of service per square mile.

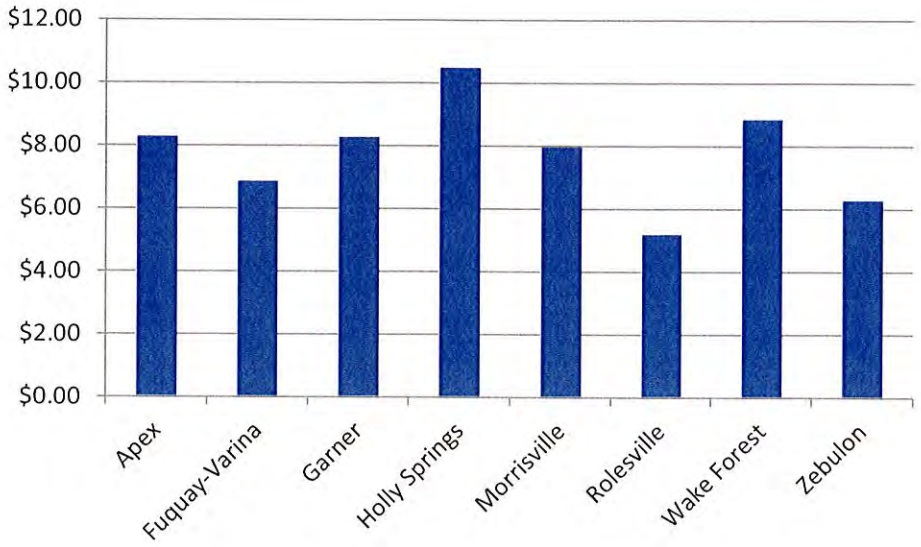
Figure 57: Cost per Square Mile[58]



MFD has the highest cost per square mile (due to the relatively small service area), while RRFD has the lowest.

[57] Ibid.
[58] Ibid.

Figure 58: Cost per $100 Total Valuation[59]



HSFD has the highest cost per $100 total valuation while RRFD has the lowest.

[59] Ibid.

Fiscal Analysis and Future Funding Models

EXISTING COST SHARE AGREEMENTS AND FORMULAS

Each of the study departments has entered into a contract agreement with Wake County to provide fire protection and other emergency services to the unincorporated areas that are designated by the County Commissioners as fire districts. This section of the report evaluates those contracts for service and will identify some of the advantages and disadvantages of those agreements.

The agreements that exist between the cost share agencies and the county are in a standard contract form that contains recitals and agreement sections. The recitals section identifies the statutory authority of each signing agency as well as the duties and responsibilities of Wake County regarding the provision of fire protection services in the unincorporated areas of the county.

The agreements section provides information relative to funding in Section 1. Use and Amount of Service Tax Levied. Primarily, each agreement states that Wake County will levy and collect taxes within each special fire tax district and place those funds into a special account for necessary expenditures for the county to provide fire protection services. Each contracting agency receives a distribution from that account based on a formula that is vague and only identified in the existing contracts as, "...determined by the Board of the County Commissioners from year to year."

As a part of the agreements, the county is required to furnish necessary vaccinations to all full-time, part-time and volunteer members of the department, fire investigation and emergency scene assistance services. Each department is required to furnish fire protection and other emergency services as determined by each department's governing body.

The agreements also contain elements pertaining to books and records, reporting, annual audits, decision making and public processes, non-compliance, authority to maintain delivery of services, financial mismanagement, composition of governing body, liquidation and/or dissolution, merger, allowable use of funds, budget preparation, insurance requirements, Insurance Services Office ratings and standards of performance.

Section 20 of the agreements addresses standards of performance. Although the opening paragraph of this section states that each agency will, "...participate jointly with the County in development and implementation of countywide fire service system performance standards through the Fire Commission including (but not limited to) staffing, turnout time, response time, fire and emergency-event outcomes, customer satisfaction and dissatisfaction, documentation consistency and compliance with standard operating procedures." No countywide performance standards exist. Rather, each agency has been delegated authority to determine the method of delivering services and the standards to which they chose to meet.

The term of agreement with each study department is based on the type of department/organization being contracted with as identified below.

Figure 59: Department Type of Term of Agreement

Department	Type	Term of Agreement	Cost Share Percentage
Town of Apex Fire Department	Municipal	10 Years	20.0%
Town of Fuquay-Varina Fire Department	Municipal	10 Years	47.0%
Garner Fire-Rescue	Not-for-Profit	Annual	45.3
Town of Holly Springs Fire Department	Municipal	10 Years	22.0%
Town of Morrisville Fire Department	Municipal	10 Years	21.0%
Rolesville Rural Fire Department	Not-for-Profit	Annual	82.0%
Wake Forest Fire Department	Not-for-Profit	Annual	22.9%
Town of Zebulon Fire Department	Municipal	10 Years	50.0%

As seen in the figure above, those departments that are municipal in nature have contracts that run for 10 years while the not-for-profit departments are renewed annually.

Advantages

There are many advantages to the current contract that provide for the duties and responsibilities of each party as well as protections from liability or the impact of dissolution. The primary advantages to the agreements are identified below:

- Roles and responsibilities are clearly defined
- Source of funding is clearly defined
- Recordkeeping, reporting and audit requirements are sound
- Assurance of transparency are sound
- Adequate protections for the county are provided if the department should not be able to fulfil is contractual responsibilities
- Adequate protections for the county are provided if the department should dissolve
- Use of funding is clearly defined
- Minimum Insurance Services Office rating is identified

Disadvantages

While there are a number of advantages to the current agreements, there are also a number of disadvantages as identified below.

- The process for determining the needs of the fire departments is clouded
- The process to determine funding amounts is not defined
- Standards of performance are identified but not defined
- Penalties for non-compliance are vague
- Annual term of agreement is cumbersome to the budgeting process

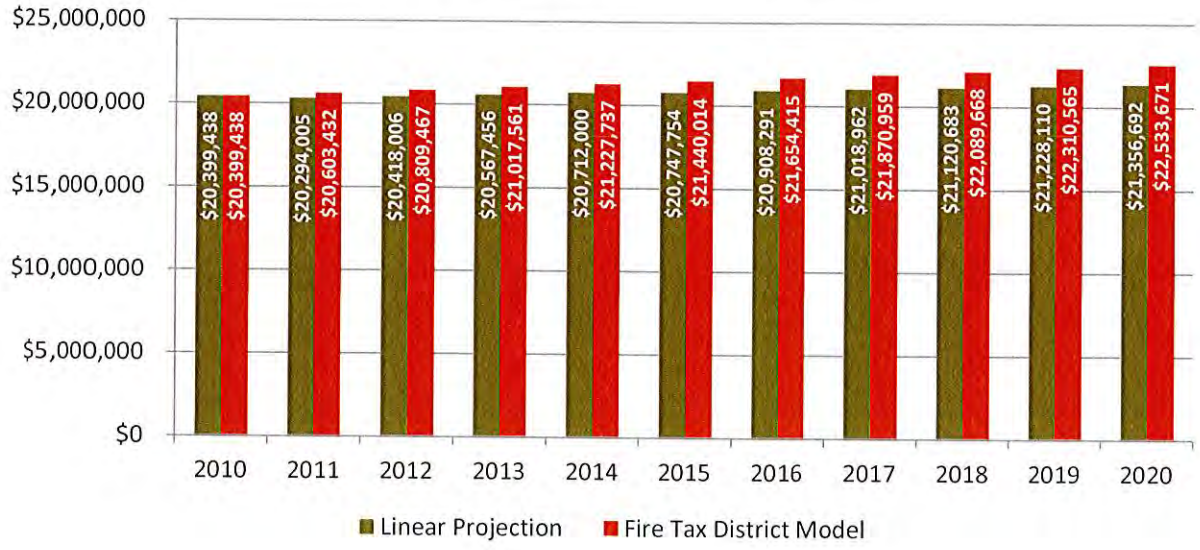
Recommendations

- As a part of this project, a new funding formula should be adopted that considers a variety of factors including service area, population, service demand, valuation, deployment and others as appropriate.
- A defined mechanism to determine departmental needs should be developed to assist both department and county officials in the distribution of fire tax monies.
- Response standards should be adopted that are determined through a consensus of department officials, county officials, community leaders and public input.
- Periodic review of adopted response performance standards should be integrated into any new contract with penalties for failure to meet the adopted standards.
- Term of agreement should be consistent across the departments and should be of a length that is agreed upon by all parties through consensus.

PROJECTED FUNDING MODELS

Based on historical funding levels, ESCI developed a projection regarding revenues and funding to the cost share departments. The figure below projects the revenue from the fire tax district through 2020 at the current rate as well as a linear projection based on historic revenues from 2010 to 2014.

Figure 60: Projected Fire Tax Revenue (Current Rate)



Based on the linear projection, revenue growth is only expected at a level of approximately three percent over the period from 2015 to 2020. The fire tax district model, however, estimates a growth rate of only one percent annually.

If the historical distributions to the cost share departments are to continue through 2020, some departments will see dramatic increases in their funding while others will remain relatively flat as illustrated in the following figure.

Figure 61: Projected Departmental Funding - Current Trend (Total County Tax Base Growth)

	2014	2015	2016	2017	2018	2019	2020
Apex	$707,525	$722,919	$736,414	$753,940	$770,630	$785,455	$801,658
Fuquay-Varina	$1,389,098	$1,402,169	$1,425,297	$1,452,160	$1,473,935	$1,494,431	$1,519,547
Garner	$1,650,766	$1,781,162	$1,783,120	$1,850,826	$1,923,313	$1,982,265	$2,026,856
Holly Springs	$422,737	$424,030	$437,888	$448,456	$456,454	$465,471	$476,894
Morrisville	$794,122	$784,936	$803,869	$811,907	$818,698	$825,544	$837,804
Rolesville	$559,803	$561,056	$573,156	$582,013	$588,870	$596,707	$606,466
Wake Forest	$699,366	$798,058	$929,678	$1,054,422	$1,121,490	$1,250,786	$1,360,068
Zebulon	$533,893	$520,373	$555,330	$590,127	$620,709	$637,102	$674,379

As of FY 2014, the cost share departments consumed 32.63 percent of the total fire tax levy. At historic rates, by 2020 that percentage will reach 38.88 percent as compared to 28.05 percent in 2010. Although

the figure above is based on total Wake County valuation growth, the growth in valuation in the fire district tends to lag behind the county in general due to annexations and long-term decreases in tax base. The FY 2013 to FY 2014 increase was only 0.7 percent. Based on this increase, projected department funding could be substantially different than the previous figure, as illustrated below.

Figure 62: Projected Departmental Funding - Current Trend (Fire District Tax Base Growth)

	2014	2015	2016	2017	2018	2019	2020
Apex	$707,525	$712,478	$717,465	$722,487	$727,545	$732,637	$737,766
Fuquay-Varina	$1,389,098	$1,398,822	$1,408,613	$1,418,474	$1,428,403	$1,438,402	$1,448,471
Garner	$1,650,766	$1,662,321	$1,673,958	$1,685,675	$1,697,475	$1,709,357	$1,721,323
Holly Springs	$422,737	$425,696	$428,676	$431,677	$434,699	$437,741	$440,806
Morrisville	$794,122	$799,681	$805,279	$810,916	$816,592	$822,308	$828,064
Rolesville	$559,803	$563,722	$567,668	$571,641	$575,643	$579,672	$583,730
Wake Forest	$699,366	$704,262	$709,191	$714,156	$719,155	$724,189	$729,258
Zebulon	$533,893	$537,630	$541,394	$545,183	$549,000	$552,843	$556,713

COMPARATIVE INFORMATION

Wake County is the second most populated county in North Carolina. In order to provide policymakers with sufficient information to move forward with a new methodology for providing funding to the departments that provide fire protection to the unincorporated areas, ESCI conducted a survey of comparable communities throughout the Southeast. This section provides a summary of those surveys and includes Mecklenburg County, NC; Guilford County, NC; Greenville County, SC; Fairfax County, VA; Montgomery County, MD; Fulton County, GA; Gwinnett County, GA; Shelby County, TN; Pinellas County, FL; and Duval County, FL.

Mecklenburg County, NC

Mecklenburg County, NC is the largest county in North Carolina with a population of 969,031[60] and a total unincorporated land area of 31.2 square miles. Starting in 2013, the county levied a fire protection service district tax to pay for fire services in the towns and unincorporated area. A total of five service districts were created to service the extraterritorial jurisdictions (ETJ) left in the county. The ETJs include all areas outside of the Towns of Cornelius, Huntersville, Mint Hill and the City of Charlotte.

Prior to FY2013, the county provided individual subsidies or contracts to 15 volunteer or municipal fire departments operating within Mecklenburg County. They are responsible for providing fire services to residents in some of the towns and the unincorporated area. This subsidy cost $2.5 million in FY2012.

These districts were created to fund the cost of providing fire protection services to all residents in the service district, with the cost burden carried by all service district property owners, through the fire protection service district tax. The county uses the funds raised by the Fire Protection Service District tax to contract with the City of Charlotte, or the towns, or in some instances, directly with the volunteer fire

[60] 2012 Census estimate.

department(s) related to a specific Fire Protection Service District, to provide fire protection services for that area.

The tax rate necessary to fund the service district is recommended by each town, but set by the Board. The tax rate for the Charlotte ETJ service district is set by the Board based on the property values and the cost of services provided. Based on this guidance, the Fire Protection Service District tax rates for each district is set at 5 to 7 cents per $100 in valuation based on the following schedule.

Figure 63: Mecklenburg County, NC Fire District Tax Rates and Revenues

	Charlotte ETJ	Cornelius ETJ	Davidson ETJ	Huntersville ETJ	Mint Hill ETJ
Tax Rate	$0.06	$0.05	$0.05	$0.05	$0.07
FY14 Projected Revenue	$2,636,617	$41,107	$98,074	$589,424	$270,278

Guilford County, NC

Guilford County, NC is the third largest county in North Carolina with a population of 500,879[61] including the Cities/Towns of Greensboro, High Point, Gibsonville, Jamestown, Oak Ridge, Pleasant Garden, Sedalia, Stokesdale, Summerfield and Whitsett.

The County has 29 special fire protection / service districts that provide fire response service in areas of the county not serviced by a municipal fire department. Fifteen of these districts also have fire protection service overlay districts -- funding mechanisms used to generate funds for fire protection services once the district tax rates reach the caps established when the districts were first established.

The primary funding for each district comes from property tax revenue generated by a special district tax. The tax, which is in addition to the County's general property tax, is levied on the property in each district and the revenues generated are dedicated for use in the district where they are raised. The Board of Commissioners, with the adoption of the annual Budget Ordinance, establishes the rate for each district annually. The districts also receive funding from their share of the local option sales taxes levied by the County.

In the FY 2014 budget, the fire districts produced $12,986,807 in fire tax revenue through $11,106,807 in property taxes and $1,880,000 in sales tax revenue. The expenditures, however, totaled $13,552,968, which required contribution from fund balance of $566,161. The figure below summarizes the various tax rates and revenues budgeted for FY 2014.

[61] Ibid.

Figure 64: Guilford County, NC Fire District Tax Rates and Revenues

District	Tax Rate	Revenue[62]
Alamance	$0.0998	$1,100,447
Climax	$0.10	$99,890
Climax Service District Overlay	$0.02	$16,106
Colfax	$0.10	$524,103
Colfax Service District Overlay	$0.014	$58,469
District 18	$0.0941	$215,943
District 28	$0.10	$154,413
District 14	$0.10	$190,790
District 14 Service District Overlay	$0.0266	$46,196
Gibsonville	$0.0972	$14,846
Guilford College	$0.10	$526,891
Guil-Rand	$0.10	$141,205
Guil-Rand Service District Overlay	$0.02	$23,305
District 1	$0.0918	$26,122
Julian	$0.1011	$67,725
Kimesville	$0.1027	$104,012
McLeansville	$0.10	$806,036
Mt. Hope	$0.08	$607,995
Northeast	$0.10	$850,634
Oak Ridge	$0.0848	$1,183,708
Pinecrost-Sedgefield	$0.0988	$1,779,386
Pleasant Garden	$0.10	$659,542
PTIA Service District	$0.02	$78,460
District 13	$0.10	$932,844
District 13 Service District Overlay	$0.03	$225,470
Southeast	$0.125	$189,477
Stokesdale	$0.10	$625,653
Summerfield	$0.0956	$1,914,097
Whitsett	$0.0730	$389,203
Total		**$13,552,968**

Greenville County, SC

Greenville County, SC is the most populous county in South Carolina with an estimated population of 474,266 including the cities of Greenville, Greer, Mauldin, Simpsonville, Fountain Inn and Travelers Rest.

There are current 20 independent fire districts serving unincorporated Greenville County with an average tax rate of $0.0395. The following is a list of those districts and their associated millage rates as provided by the SC Secretary of State in their 2012 Biennial Directory of Special Purpose Districts.

[62] Including sales tax revenue and appropriated fund balance.

Figure 65: Greenville County, 5C Fire Districts Tax Rates and Revenues

District	Services	Millage	2012 Revenue
Belmont Fire and Sanitation District	Fire and EMS	57.4 Mills	$818,926
Berea Public Service District	Fire and Sewer	52.6 Mills	$3,405,854
Boiling Springs Fire District	Fire	21.1 Mills	$3,231,710
Canebrake Fire District	Fire	17.3 Mills	$219,624
Donaldson Center Fire Service Area	Fire	51.6 Mills	$1,607,222
Duncan Chapel Fire District	Fire	38.9 Mills	$929,734
Dunklin Fire District	Fire	27.9 Mills	$174,475
Foothills Fire Service Area	Fire	10.5 Mills	$41,404
Gantt Fire, Sewer and Police District	Fire and Sewer	63.0 Mills	$4,625,738
Grassy Mountain Fire/Safety Service Area	Fire	18.0 Mills	$1,367,264
Gowensville Fire Department	Fire	24.6 Mills	$244,902
Lake Cunningham Fire Department	Fire	32.7 Mills	$2,236,751
Park Sewer and Fire Sub-District	Fire and Sewer	77.1 Mills	$10,003,011
Pelham-Batesville Fire District	Fire	25.5 Mills	$3,564,401
Piedmont Park Fire District	Fire	53.3 Mils	$2,195,756
Piedmont Public Service District	Fire, Light, Recreation	59.0 Mills	$1,374,982
Slater-Marietta Fire District	Fire	14.0 Mills	$276,427
South Greenville Area Fire District	Fire	36.2 Mills	$3,459,926
Taylors Fire and Sewer District	Fire and Sewer	69.4 Mills	$5,228,437
Wade Hampton Fire and Sewer District	Fire and Sewer	40.8 Mills	$4,681,164

Each of the districts identified above are considered independent taxing districts and have statutory authority to levy a tax to provide services under the special district laws of South Carolina. All unincorporated areas of Greenville County either receive services from one of these districts or the district contracts with a municipal department to provide first due fire coverage into portions of their area.

Fairfax County, VA

Fairfax County, VA has a total population of 1,119,000 in an area of approximately 407 square miles. Fire services within Fairfax County are provide by a career/volunteer system that staffs county personnel in fire stations across the county supplemented by volunteers affiliated with independent fire companies.

The adopted FY 2014 budget for the Fairfax County Fire and Rescue Department (a general fund department) was $170,859,601. Since all fire protection services within Fairfax County are funded through the county's general fund, no separate fire districts exist.

Montgomery County, MD

Montgomery County, MD has a total population of 1,005,000 in an area of approximately 507 square miles. Much like Fairfax County, VA, Montgomery County operates a countywide fire and rescue department that operates from 35 fire stations with career personnel supplemented with volunteers.

The adopted FY 2014 budget for Montgomery County Fire and Rescue Services (a general fund department) was $228,900,624. Since all fire protection services within Montgomery County are funded through the county's general fund, no separate fire districts exist.

Fulton County, GA

Fulton County, GA is the most populous county in Georgia with a total population of 977,773 in an area of 535 square miles. The unincorporated area consists of approximately 106 square miles. Approximately 90 percent of the City of Atlanta is in Fulton County as well as 13 other municipalities. In the unincorporated areas of Fulton County, fire services are provided by Fulton County Fire and Rescue (a general fund department) and the FY 14 budget totaled $14,489,677. Since all fire protection services within unincorporated Fulton County are funded through the general fund, no separate fire districts exist.

Gwinnett County, GA

The Gwinnett County Fire and EMS District was created in 2013 to provide services to the unincorporated areas of Gwinnett County as well as all cities within the county except for the City of Loganville. Unaudited revenues for FY 2013 totaled $112,695,692 (including a one-time transfer from general fund of $20,800,000 to establish a reserve fund) with FY 2014 revenues projected at $93,742,919.

The Fire and Emergency Medical Services (EMS) District Fund accounts for the revenues and expenditures attributable to the Fire and Emergency Medical Services District. The city of Loganville operates its own fire department, but residents and businesses continue to receive county-provided emergency medical services. A property tax is levied to support this service district. No other fire districts exist within Gwinnett County.

Shelby County, TN

Shelby County, TN is the largest county in Tennessee both in geographic size and population with a total area of 784 square miles and a population of 940,764 including the City of Memphis. The unincorporated area consists of approximately 300 square miles and a population of 152,000 residents in about 46,700 structures.

Shelby County Fire Department is an enterprise fund within the overall Shelby County organizational structure and is funded through service fees charged by the fire department. FY 2014 revenue was projected at $20,358,882 with equal expenditures. The primary revenue sources are Fire Fees on structures in unincorporated Shelby County and Lakeland, Tennessee and reimbursement of the cities' shares of the Ambulance Contract for Arlington, Collierville, Germantown, Lakeland, and Millington. Residential fees are variable, based on square footage and are $18.90 to $58.23 a month. Commercial fees are $65.80 month if the structure is less than 5,000 square feet; add $1.00 for every 1,000 square feet. Churches are $423 a year. Agricultural properties are $704.52 a year. No other fire districts exist within Shelby County or provide services to the unincorporated areas.

Pinellas County, FL

Pinellas County, FL is a peninsula community consisting of 608 square miles and surrounded by water on three sides (Tampa Bay to the east and the Gulf of Mexico on the west and south). The total county population is estimated at 921,319 and includes the cities of Clearwater and St. Petersburg.

Fire protection is provided to the unincorporated areas of Pinellas County in 12 separate dependent fire protection districts: Belleair Bluffs, Clearwater, Dunedin, Largo, Pinellas Park, Safety Harbor, South Pasadena, Tarpon Springs, Gandy, Tierra Verde, HighPoint and Seminole. Service is funded by Ad Valorem taxes collected from property owners in the districts, and is provided via contracts with cities and other independent agencies. The Safety and Emergency Services Department administers the fund and contracts.

The County budget for each Fire District is developed by applying the unincorporated pro-rata share of property values within the district to the contracted fire protection provider's annual operating and capital budget requests. The proposed FY2014 budgets for all 12 Fire Districts total $23,207,050, which is a net increase of $242,830 or 1.1 percent over the FY2013 adopted budget of $22,964,220. The figure below identifies each district's adopted millage rate and valuations.

Figure 66: Pinellas County Fire District Tax Rates and Valuation

District	Cap/per $1,000 Val.	Tax Rate per $1,000 Val.	2014 Revenue
Belleair Bluffs/Largo	$5.00	$1.732000	$493,451.01
Clearwater	$5.00	$3.209200	$2,701,057.17
Dunedin	$5.00	$3.552500	$1,016,790.34
Gandy	$5.00	$2.977000	$138,909.09
Largo	$5.00	$3.560900	$1,820,024.59
Pinellas Park	$5.00	$3.016300	$781,380.81
Safety Harbor	$5.00	$2.811800	$179,458.87
Tarpon Springs	$5.00	$2.374500	$393,924.12
Seminole	$10.00	$1.958100	$4,267,522.62
High Point	$10.00	$2.670000	$1,779,674.27
Tierra Verde	$3.00	$1.918800	$1,458,798.85
South Pasadena	$5.00	$0.913700	$97,771.63

Duval County, FL

Duval County, FL is located on the east coast of Florida and covers a total land area of 918 square miles with a total population of 879,602 including the City of Jacksonville, Jacksonville Beach, Atlantic Beach, Neptune Beach and Baldwin. The county and the City of Jacksonville merged their governmental operations in 1968 therefore the City of Jacksonville provides fire protection services throughout what was unincorporated Duval County.

The FY 2014 budget for the City of Jacksonville Fire and Rescue Department totals $182,936,200 and includes emergency medical services for the entire county. Revenues come primarily from ad valorem property taxes with an additional $22,566,731 in ambulance transport revenue and $5,095,768 from an

agreement with Jacksonville International Airport and other miscellaneous sources. Since Duval County has no unincorporated areas, no other fire districts exist within the county.

Tualatin Valley Fire & Rescue, OR

Tualatin Valley Fire & Rescue (TVF&R) is an independent special fire district under the laws of the state of Oregon. The department covers approximately 210 square miles of both incorporated and unincorporated area with a total service population of approximately 449,610. The department provides services to the cities of Durham, King City, Sherwood, Tigard, Tualatin, Rivergrove, Wilsonville, Beaverton, West Linn, as well as unincorporated areas of Washington, Clackamas and Multnomah counties.

The FY 14/15 budget for TVF&R is reported as $156,276,279 and includes all services provided by the department including administrative and support services typically included in municipal departments such as legal, accounting, budgeting and other administrative services. In addition, the budget provides funding for the operation of 21 career and volunteer fire stations staffed by nearly 500 career firefighters and over 60 volunteers.

Nearly all revenues within TVR&R come from a property tax levy on all real property within the independent district's response area. All property is assessed a $1.5252 per $1,000 of assessed value plus a local option levy of $0.25 per $1,000 assessed value and an estimated 11.7 cents per $1,000 assessed value for debt service for a total of $1.8852 per $1,000 assess value. This rate is applied to all properties within the district and does not deviate based on city or unincorporated area.

Clackamas County, OR

Clackamas County, OR is located in the northwestern portion of the state just south of the City of Portland. The counties estimated 2010 population was recorded at 375,992 including the cities of Barlow, Canby, Damascus, Estacada, Gladstone, Happy Valley, Johnson City, Lake Oswego, Milwaukie, Molalla, Oregon City (county seat), Rivergrove, Sandy, Tualatin, West Linn and Wilsonville. Clackamas County is served by 16 fire departments and districts as listed below.

Figure 67: Clackamas County, OR Fire Tax Rates

Department	Type	Area	Population	Tax Rate/ $1,000 AV
Aurora Fire District 3	Ind. District	64	5,500	$1.3343
Boring Fire District 59	Ind. District	64	20,000	$2.3771
Canby Fire District 62	Ind. District	54	30,000	$1.8856
Clackamas Fire District 1	Ind. District	194	179,000	$2.4631
Colton Fire District 70	Ind. District	46	5,000	$1.5601
Estacada Fire District 69	Ind. District	88	18,000	$2.4029
Gladstone Fire Department	Municipal	4	12,000	
Hoodland Fire District 74	Ind. District	56	10,000	$2.6385
Lake Grove Fire District 57	Ind. District			$2.4592
Lake Oswego Fire Department	Municipal	14	50,000	
Molalla Fire District 73	Ind. District	110	18,000	$0.7833
Monitor Fire District 58	Ind. District	35	3,000	$1.6134
Riverdale Fire District 60	Ind. District			$1.4061
Sandy Fire District 72	Ind. District	77	17,000	$2.1776
Silverton Fire District 2	Ind. District	106	18,000	$1.3214
Tualatin Valley Fire & Rescue	Ind. District	210	450,000	$1.8852

With the exception of the two municipal departments noted above, each special district levies it's on tax rate to property within each district, much of which is considered unincorporated.

Summary and Comparisons

While Mecklenburg County, NC is significantly larger than Wake County and has significantly less unincorporated area, the format of fire protection is very similar: The county contracts with several municipal fire departments to provide services into the unincorporated areas. The major difference in place, however, is that Mecklenburg County has five separate fire tax districts where Wake County only has one. This is a common practice across North Carolina but, in some cases, creates a disparity in the amount of funding available for fire departments. This is also evident in Guilford County where 24 separate fire districts plus five service district overlays are present. Rather than levying a single tax rate for fire protection throughout the county, Guilford County has chosen to continue using the traditional model and applying varying tax rates that range from $0.08 to $0.125 per $100 valuation.

In similar manner, Greenville County, SC has retained the traditional model of funding fire protection in the unincorporated areas of the county by applying a multitude of tax rates based on area. As mentioned above, the methodology chosen by Wake County to more consistently fund the various fire departments in the county has allowed resources to be shared more freely and a more consistent level of service to be applied. Pinellas County, FL also follows this model and contains 12 separate fire districts that provide service to the unincorporated areas. The tax rates vary from $1.73 to $3.56 per $1,000 valuation.

Fairfax County, VA, Montgomery County, MD, Fulton County, GA and Shelby County, TN each provides county-wide fire protection at various levels and have abandoned to model of funding individual fire

departments. Duval County, FL has no unincorporated areas and provides service through a joint government model with the City of Jacksonville. Thus services are provided county-wide. Tualatin Valley Fire & Rescue is an independent taxing entity that levies its adopted tax rate to all properties it serves, regardless of which county or municipality that property me lay.

As mentioned above, Wake County has adopted a model to more consistently apply and allocate funds for the provision of fire protection across the county. Although the county-wide systems noted above provide services internally, the Wake County system can be viewed in similar manner. Although there are various departments providing the services to the unincorporated areas, the resources within those agencies should be freely moveable throughout the county as the need arises; in essence functioning as a single provider of fire and emergency services. Unfortunately for the fire service as a whole, there is little in the way of consistency in the application of funding mechanisms and resource allocation. Each community must determine what is in the best interest of those they service and apply the appropriate methodology for funding and resource deployment.

FUNDING ALTERNATIVES

While purely economic considerations may suggest that those who benefit from a service should pay in direct proportion to the level of benefit (the "benefits received" principle), social and political concerns may also enter into the price-setting process. Therefore, the task of apportioning the cost of an allied emergency services system among partner agencies will likely require a fair amount of analysis and negotiation. The process should be approached with the recognition that any agreed upon allocation formula must fit the local situation, it should serve the best interests of the partners over the long-term, and everyone (especially the public) should easily understand it. It is also essential that the process be maintained completely transparent at the governance level. Another consideration is the provision of different services throughout the county. Currently, all the study agencies provide both fire suppression and first response emergency medical services. In addition, several provide technical rescue services that others do not. Aside from fire protection, these specialty services require different response apparatus and equipment and specialized training. As the county continues the process of determining the most effective funding methodology for the cost-share departments, a discussion should ensure regarding the delivery of specialty services and how those resources are shared across the county.

ESCI generally advises clients to keep cost apportionment formulas fair, simple, and intuitively logical to assure that the public accepts and supports the endeavor. The typical factors included in cost allocation formulas include:

- Area
- Valuation
- Heated Square Footage
- Service Demand
- Fixed Rate
- Population

- Parcels
- Averaged Composite

What follows is a non-prioritized listing of system variables that can be used (singly or in combination) to allocate cost between allied entities. Each option is summarized by the concept, its advantages and disadvantages, and other factors that should be considered.

Area

Concept:

The cost of emergency service can be apportioned based on the geographic area served relative to the whole. Apportionment founded on service area alone may work best in areas that are geographically and developmentally homogeneous.

Pro:

Service area is easily calculable from a variety of sources.

Con:

Service area does not necessarily equate to greater risk or to greater workload.

Consider:

Service area may be combined with other variables (such as assessed value and number of emergencies) to express a compound variable (such as assessed value per square mile and emergencies per square mile).

Valuation

Concept:

The valuation of properties is established by the local tax assessor under laws of the state. Usually, higher-valued structures and complexes carry a greater risk to the community from loss by fire; consequently, assessed value also tends to approximate the property at risk within a community. Emergency services agencies are charged with being sufficiently prepared to prevent loss of life and property. Therefore, the cost of contracted service may be apportioned relative to the assessed value of the jurisdictions. Typically, valuation is used to apportion cost of shared service by applying the percentage of each partner's valuation to the whole.

Pro:

Valuation is updated regularly helping to assure that adjustments for changes relative to new construction, annexation, and inflation are included. Because a third party (the assessor) establishes valuation in accordance with state law, it is generally viewed as an impartial and fair measurement for cost apportionment. Although the provision of emergency medical services is not typically considered a *property-related service,* apportionment tied directly to property value has merit.

Con:

Valuation may not reflect the property risk associated with certain exempt property, such as schools, universities, government facilities, churches, and institutions. Valuation may not always represent the life risk of certain properties, such as nursing homes or places of assembly, which might dictate more significant use of resources. In addition, some large facilities may seek economic development incentives through valuation exemptions or reductions. Adjustments may need to be made to valuation if such large tracts of exempt property in one jurisdiction cause an imbalance in the calculation.

Consider:

Some states discount valuation depending on the class of property (commercial, residential, or agricultural), which may skew the overall proportion of those properties compared to risk. As an additional consideration, assessors usually establish the valuation in accord with the property tax cycle, which can lag somewhat behind the budget cycle of local agencies and the time when service contracts are reviewed or negotiated. Also, commercial facilities contain greater fire containment systems based on building code requirements such as sprinkler systems.

Heated Square Footage

Concept:

Much like the use of valuation, heated square footage is a method that allows agencies to view the property risk within their community through a process that evaluates each and every property they protect. Larger structures typically carry a higher risk due to occupancy or overall size of the space. Unlike valuation, however, exempt properties and those properties that may have received discounts on their valuation are rated equally based on size.

Pro:

Local building, zoning and assessors keep routine records on existing and new construction and these records are regularly updated to accurately reflect the community's value and appeal. Like valuation, these reviews are typically viewed as impartial and fair because they are completed by a third party evaluator.

Con:

Some properties that may contain high risks to life and property may not actually contain much in the way of heated square footage. Commercial and industrial areas that contain hazardous materials, such as petroleum pipeline facilities, storage tanks and fill stations, would not be included in this calculation. Communities with higher concentrations of these non-heated facilities would see this type of measure as an imbalance in the apportionment system.

Consider:

While this concept may work well in communities that are largely residential, it would be difficult to apply in industrial and chemical settings. When using this concept, a weighting or offset system would need to be implemented to account for those non-heated facilities.

Service Demand

Concept:

Service demand may be used as an expression of the workload of an emergency service provider or geographical area. Cost allocation based on emergencies would consider the total emergency response of the service area, and apportion system cost relative to the percentage of emergencies occurring in the jurisdictions.

Pro:

Easily expressed and understood. Changes in the workload over the long term tend to mirror the amount of human activity (such as commerce, transportation, and recreation) in the corresponding area.

Con:

Emergency response fluctuates from year to year depending on environmental and other factors not directly related to risk, which can cause dependent allocation to fluctuate as well. Further, the number of incidents may not be representative of actual workload; for example, one large emergency event requiring many emergency workers and lasting many hours or days versus another response lasting only minutes and resulting in no actual work. Last, emergency response is open to (intentional and/or unintentional) manipulation by selectively downgrading minor responses, by responding off the air, or by the use of mutual aid. Unintentional skewing of response is most often found in volunteer fire systems, where dispatch and radio procedures may be imprecisely followed. Further, service demand does not follow a predetermined ratio to land area. As such, the service demand per square mile ratios may produce large variations. This should be taken into consideration if this methodology is used.

Consider:

Using a rolling average of incidents over several years can help to suppress the normal tendency for the year-to-year fluctuation of emergencies. Combining the number of emergencies with the number of emergency units and/or personnel required may help to align incidents with actual workload more closely; however, doing so adds to the complexity of documentation. In a similar manner (and if accurate documentation is maintained), the communities could consider using the total time required on emergencies as an aid to establish the comparative workload represented by each jurisdictional area.

Fixed Rate

Concept:

The use of fixed fees or rates (such as a percentage) to calculate allocation of shared cost is more common between municipalities and independent districts. Occasionally, fixed-rate contracts involve the exchange of in-kind services.

Pro:

The concept is simple and straightforward. A menu of service options and the fees corresponding to those alternatives can be developed by the contractor agency. The contracting agencies can tailor a desired level of service based on risk and community expectation by choosing from the various menu items.

Con:

Partnering communities may change (i.e., population, jobs, commerce, structures, and risk) at divergent rates causing disconnection between the rationales used to establish the fee and the benefit received. A fixed-rate contract may be difficult to coherently link to the services provided and/or received, which can lead to a lack of support by officials and the community.

Consider:

Partnering agencies need to assure that provision for rate adjustment is included in the agreement, including inflation. The agreement should address the issue of full cost versus marginal cost. The inclusion or non-inclusion of administrative and/or overhead cost also requires statement, as does the reconciliation of in-kind service exchange. The ownership and/or depreciation of capital assets should be addressed, as should rent, utilities, and liability insurance. In the case of a fixed fee, the agreement should establish how the participation of other public agencies in the partnership would affect cost.

Population

Concept:

Payment for service can be based on the proportion of residential population to a given service area. This variable is easily determined and can be adjusted annually based on U.S. Census population estimates. It is a known fact that human activity generates service demand for emergency services providers. Areas of higher population (urban and suburban) will see higher service demand rates than areas of lower population (rural). Basing cost allocation on population places more of the cost on the areas where incidents are more likely to occur.

Pro:

Residential population is frequently used by governmental agencies to measure and evaluate programs. The U.S. Bureau of Census maintains an easily accessible database of the population and

demographics of cities, counties, and states. Estimates of population are updated regularly. Laypersons intuitively equate residential population to the workload of fire departments.[63]

Con:

Residential population does not include the daily and seasonal movement of a transient population caused by commerce, industry, transport, and recreation. Depending on the local situation, the transients coming in (or going out) of an area can be very significant, which can tend to skew community risk. Residential population does not statistically link with emergency workload; rather, human activities tend to be the linchpin that connects people to requests for emergency assistance.

For example, if residential population actually determined emergency workload, emergencies would peak when population was highest within a geographic area. However, in many communities where the residential population is highest from about midnight to about 6:00 a.m. (bedroom communities), that time is exactly when the demand for emergency response is lowest. It turns out that emergency demand is highest when people are involved in the activities of daily life — traveling, working, shopping, and recreating. Often, the persons involved in such activities do not reside in the same area.

Consider:

Some areas experience a daily or seasonal influx of people who are not counted as residential population. This transient population can be estimated by referring to traffic counts, jobs data, and hotel/motel occupancy rates. Residential population plus transient population is referred to as *functional population*. Where functional population is significantly different from residential population, service agreements based on population should be adjusted to account for it.

As mentioned previously, each of the funding options discussed above can be used singularly or in combination with one or more other variables. The paragraphs below evaluate the multiple-variable allocation method and provide some examples of how this methodology can be implemented.

Parcels

Concept:

The number of parcels within a given community can be used to determine proportional cost shares due to the variable density of those parcels. Communities with smaller parcels tend to have higher population densities while those more rural areas can have very large parcels with much lower population density. Much like population, areas of higher parcel population will likely see higher service demand rates than areas of low parcel density.

Pro:

Although infrequently used, the employment of parcels into a cost-share calculation allows organizations to evaluate the need for service to areas that may not be developed but still contain a

[63] The average citizen may easily associate population to emergency workload, but no statistical link can be made between the two.

certain level of risk. Even undeveloped properties contain a fire risk, albeit low. Medical risk is extremely low unless recreational facilities are included in the count. This type of calculation also ignores those properties that may not be taxable such as government buildings, non-profit organizations and churches.

Con:

Parcel counts ignore the types of properties being included in the count. Certain parcels may contain high risk properties while others have an extremely low risk. This type of calculation also ignores the population of any given parcel, which as previously discussed, typically drives emergency services demand.

Consider:

Determining cost share based on parcel count should only be used solely if the various departments have a relatively equal distribution of non-taxable properties or if one or more departments have an extremely high concentration of non-taxable properties.

As mentioned previously, each of the funding options discussed above can be used singularly or in combination with one or more other variables. The paragraphs below evaluate the multiple-variable allocation method and provide some examples of how this methodology can be implemented.

Multiple-Variable Allocation

Frequently, even though everyone may agree on the benefit of allied emergency services, officials find it difficult to reach an accord on the cost. The differences between community demographics and/or development, along with changes that occur within the system over the long term, can cause the perception of winners and losers. This can be especially prevalent when a single variable is used to apportion cost. A service contract based on more than one allocation determinate may help solve these problems.

By apportioning the costs over more than one variable, the members of the alliance will be able to reach a long-term agreement that fits the diversity of the partnering agencies. When choosing a cost-sharing strategy for partnered fire protection, it is important to keep any apportionment formula fair, simple, and intuitively logical to assure that the public accepts and supports the endeavor.

The information provided above serves as a detail of each funding alternative presented. Given the lengthy discussion provided with each alternative, ESCI has compiled the information into a summary table illustrating how each funding alternative would be distributed among the cost share departments in the figure below.

Figure 68: Alternative Funding Model - Apex

Jurisdiction	Area	Assessed Value	Heated Square Footage	Service Demand	Population	Parcels	Composite
Apex	23.1%	78.7%	87.2%	35.4%	68.6%	81.3%	62.4%
Hipex	76.9%	21.3%	12.8%	64.6%	31.4%	18.7%	37.6%

Figure 69: Alternative Funding Model – Fuquay-Varina

Jurisdiction	Area	Assessed Value	Heated Square Footage	Service Demand	Population	Parcels	Composite
Fuquay-Varina	18.0%	48.0%	58.3%	44.5%	45.6%	47.4%	43.6%
Furina	82.0%	52.0%	41.7%	55.5%	54.4%	52.6%	56.4%

Figure 70: Alternative Funding Model - Garner

Jurisdiction	Area	Assessed Value	Heated Square Footage	Service Demand	Population	Parcels	Composite
Garner	18.6%	53.2%	58.0%	36.1%	48.5%	42.9%	42.9%
Garner Rural	81.4%	46.8%	42.0%	63.9%	51.5%	57.1%	57.1%

Figure 71: Alternative Funding Model – Holly Springs

Jurisdiction	Area	Assessed Value	Heated Square Footage	Service Demand	Population	Parcels	Composite
Holly Springs	42.5%	85.1%	90.4%	52.2%	90.9%	88.1%	74.9%
Holly Springs Rural	57.5%	14.9%	9.6%	47.8%	9.1%	11.9%	25.1%

Figure 72: Alternative Funding Model - Morrisville

Jurisdiction	Area	Assessed Value	Heated Square Footage	Service Demand	Population	Parcels	Composite
Morrisville	38.4%	74.2%	83.5%	45.4%	94.6%	88.3%	70.7%
Morrisville Rural	61.6%	25.8%	16.5%	54.6%	5.4%	11.7%	29.3%

Figure 73: Alternative Funding Model - Rolesville

Jurisdiction	Area	Assessed Value	Heated Square Footage	Service Demand	Population	Parcels	Composite
Rolesville	10.7%	33.6%	46.5%	8.0%	32.3%	36.9%	28.0%
Rolesville Rural	89.3%	66.4%	53.5%	92.0%	67.7%	63.1%	72.0%

Figure 74: Alternative Funding Model – Wake Forest

Jurisdiction	Area	Assessed Value	Heated Square Footage	Service Demand	Population	Parcels	Composite
Wake Forest	43.2%	74.0%	80.4%	53.8%	81.5%	79.9%	68.8%
Wakette	56.8%	26.0%	19.6%	46.2%	18.5%	20.1%	31.2%

Figure 75: Alternative Funding Model - Zebulon

Jurisdiction	Area	Assessed Value	Heated Square Footage	Service Demand	Population	Parcels	Composite
Zebulon	14.2%	59.9%	67.7%	13.1%	48.5%	46.8%	41.7%
Wakelon	85.8%	40.1%	32.3%	86.9%	51.5%	53.2%	58.3%

In addition to the individual funding alternatives, several multiple-variable scenarios are also provided as an example of how this type of methodology can be applied and modified. Keep in mind that the percentages applied in the figure below are examples only and can be adjusted based on consensus of the appropriate representatives. This 'calculator' will be provided to Wake County at the conclusion of this project for use in future allocation decisions.

Figure 76: Multiple-Variable Funding Scenarios

Multiple Variable Weights	
Multiple Variable #1	
Area	10%
Valuation	25%
Heated Square Footage	10%
Service Demand	25%
Population	15%
Parcels	15%
	100%
Multiple Variable #2	
Area	5%
Valuation	20%
Heated Square Footage	10%
Service Demand	40%
Population	15%
Parcels	10%
	100%
Multiple Variable #3	
Area	10%
Valuation	5%
Heated Square Footage	15%
Service Demand	30%
Population	35%
Parcels	5%
	100%

Figure 77: Example Multi-Variable Cost Allocation Model – Apex

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Apex	62.0%	58.2%	58.0%
Hipex	38.0%	41.8%	42.0%

Figure 78: Example Multi-Variable Cost Allocation Model – Fuquay-Varina

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Fuquay-Varina	44.7%	45.7%	44.6%
Furina	55.3%	54.3%	55.4%

Figure 79: Example Multi-Variable Cost Allocation Model – Garner

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Garner	43.7%	43.4%	43.2%
Garner Rural	56.3%	56.6%	56.8%

Figure 80: Example Multi-Variable Cost Allocation Model – Holly Springs

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Holly Springs	74.5%	71.5%	73.9%
Holly Springs Rural	25.5%	28.5%	26.1%

Figure 81: Example Multi-Variable Cost Allocation Model – Morrisville

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Morrisville	69.5%	66.3%	71.2%
Morrisville Rural	30.5%	33.7%	28.8%

Figure 82: Example Multi-Variable Cost Allocation Model – Rolesville

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Rolesville	26.5%	23.6%	25.3%
Rolesville Rural	73.5%	76.4%	74.7%

Figure 83: Example Multi-Variable Cost Allocation Model – Wake Forest

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Wake Forest	68.5%	66.7%	68.7%
Wakette	31.5%	33.3%	31.3%

Figure 84: Example Multi-Variable Cost Allocation Model – Zebulon

Jurisdiction	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
Zebulon	40.7%	36.7%	37.8%
Wakelon	59.3%	63.3%	62.2%

The overall intent of this project was to evaluate the current methodology of providing the cost-share departments with funding for providing emergency services to the unincorporated areas that they serve and to develop a useable, long-term, defensible system of providing that funding in the future. The information provided within this report should be reviewed by each individual organization and

municipality and consensus formed on what model to use moving forward. Once the weights provided in the multiple-variable model are determined, ESCI would recommend that model for future funding.