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**Item No. 3 (i)**  
**Committee of the Whole**  
**January 27, 2015**  
**February 3, 2015**  
**March 10, 2015**

**TO:** Mayor Savage and Members of Halifax Regional Council

**SUBMITTED BY:**

*Original Signed by Director*

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Doug Trussler, Chief, Halifax Regional Fire and Emergency Services

**DATE:** January 19, 2015

**SUBJECT:** Fire Services Operational Review – Response to Questions

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**SUPPLEMENTARY INFORMATION REPORT**

**ORIGIN**

Executive Standing Committee December 15, 2014 meeting

**LEGISLATIVE AUTHORITY**

The Halifax Regional Municipality Charter 2008, c. 39, 5. 1. confers legislative authority to maintain and provide fire and emergency services by providing the service, assisting others to provide the service, or working with others to provide the service.

The Fire Safety Act, An Act to Promote and Encourage Fire Safety, 2002, c. 6, 5. 1. confers legislative authority to make and enforce municipal by-laws relating to matters dealt with by the Fire Safety Act, the regulations or the Fire Code.

Administrative Order 24, Respecting Fire and Emergency Service in Halifax Regional Municipality establishes Halifax Regional Fire & Emergency (HRFE) as a fire department pursuant to Section 294 of the Municipal Government Act, 1998, c.1 8, si.

**BACKGROUND / DISCUSSION**

During the Executive Standing Committee meeting on December 15, 2014 it was noted that members of Council could forward their questions to Fire & Emergency Services staff for inclusion in a subsequent supplementary staff report being provided to Halifax Regional Council.

The responses to questions submitted by members of Regional Council were collected by Fire staff and are responded to in Attachment 1 of this report. Supporting information for responses is included in Attachments 2-7.

### **FINANCIAL IMPLICATIONS**

There are no budget implications associated with this report.

### **COMMUNITY ENGAGEMENT**

N/A

### **ATTACHMENTS**

1. Questions and Responses
2. Station Response Zone Maps
3. Settlement and Transportation RP+5 Map
4. Station 04 Total Incidents 2012-2014
5. Station 13 Total Incidents 2012-2014
6. HRFE Apparatus and Purpose
7. Station 13 Total Incidents 2014

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A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.php> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by: Rita Clarke HRFE Policy and Business Initiatives Coordinator 902.490.5614

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## Attachment 1

### Council Q&A:

- 1. What are the service boundaries for Hammonds Plains (Station #50), Upper Tantallon (Station #65), Seabright (Station #55), and Black Point (Station #56)? Are changes proposed?**

See (Attachment 2) for the service boundaries for each of the above stations. There are no proposed changes to the service boundaries. The boundaries were expanded slightly last summer for career firefighters responding to certain calls from Upper Tantallon (Station #65).

Prior to the re-allocation of personnel at some of our suburban and rural stations last summer, the two career firefighters, along with the volunteers at both Seabright (Station #55) and Black Point (Station #56) would have been the initial response to incidents in their own jurisdictions.

There is now no career firefighter presence at either Seabright (Station #55) or Black Point (Station #56) so the four career firefighters at neighbouring Upper Tantallon (Station #65) respond into the Seabright and Black Point boundary area.

- 2. What are the population densities within Hammonds Plains (Station #50), Upper Tantallon (Station #65), Seabright (Station #55), and Black Point (Station #56)?**

Hammonds Plains (Station #50) covers an area of 130.62 sq. km; population density is 76.17 per sq. km  
Upper Tantallon (Station #65) covers an area of 203.36 sq. km; population density is 52.61 per sq. km  
Seabright (Station #55) covers an area of 149.42 sq. km; population density is 15.75 per sq. km  
Black Point (Station #56) covers an area of 273.39 sq. km; population density is 8.57 per sq. km

- 3. What are the fire protection fees per dollar of assessment within Hammonds Plains, Tantallon, Seabright, and Black Point?**

Fire service in Halifax is funded through the general residential and commercial tax rates collected across the entire municipality. Funds from that general tax rate are directed by Regional Council for use in specific municipal services. In the case of Fire, allocations are made based on operational need, not based on where and how much is raised through the general tax rate.

It is important to point out that any attempt to hypothetically allocate general tax revenues to services and areas would bear no accurate relationship to how Regional Council actually directs funds to be spent.

- 4. What is the distance from Tantallon to Peggy's Cove and to the Hubbards county line? Which one is a 'rural growth centre' and how does that affect this decision?**

The distance from the Upper Tantallon station (Station #65) to the Hubbards county line is 24.20 kilometres. The distance from the Upper Tantallon Station (Station #65) to Peggy's Cove is 26.97 kilometres.

The Upper Tantallon area has been identified by the Council-approved Regional Plan Five-year Review (RP+5) as a 'rural *district* growth centre' with any development resembling a 'town scale'. The Hubbards area of our municipality has been identified in RP+5 as being a 'rural *local* growth centre', which would be characterized as resembling a 'village scale' of growth with a mix of low to medium density. These proposed growth areas were analyzed by Halifax Regional Fire & Emergency (HRFE) and it was determined the current fire response to those areas aligns with their risk assessment. **See Attachment 3 for a map showing the growth areas as approved in RP+5.**

**5. There seems to be some confusion as to how many volunteers respond from the Grand Lake fire station (Station #43).**

The Grand Lake fire station (Station #43) operates as a satellite station of Wellington (Station #42). Therefore the tracking of volunteers for both stations falls under the one station at Wellington. There are 15 active\* volunteers associated with the Wellington Fire Station. Of those 15, five are considered Grand Lake firefighters. Of those five, HRFE volunteer attendance records indicate only three volunteers are active.

*\*HRFE categorizes an active volunteer as someone who responds to 20 per cent of emergency calls in a year.*

**6. How many active volunteers respond from each of the District 13 fire stations?**

Upper Tantallon (Station #65) – 17 active volunteers

Black Point (Station #56) – 5 active volunteers

Seabright (Station #55) – 13 active volunteers

Hammonds Plains (Station #50) – 14 active volunteers

*\*HRFE categorizes an active volunteer as someone who responds to 20 per cent of emergency calls in a year.*

**7. How's volunteer recruitment going? What's the goal? Are any incentives being considered to increase volunteer recruitment results?**

Recruitment and retention of volunteer firefighters is a challenge not only in the Halifax Regional Municipality but all across North America. This is especially evident in our rural areas where we're seeing an ageing demographic, a trend of people moving from rural centres to the urban core, and increasingly more stringent training requirements for our volunteers.

One of the top priorities for HRFE is volunteer recruitment and retention. A full-time manager is dedicated to this role and there are regular recruitment drives throughout the municipality. The fire service has even gone door-to-door in some rural communities, looking for volunteers. The volunteer program manager also works with individual station chiefs on strategies geared toward recruitment in specific communities.

The goal of our recruitment efforts is to attract and retain as many volunteers as we can for our rural stations.

Prior to amalgamation the communities of Bedford, Sackville, Eastern Passage and Cole Harbour had a volunteer compliment to supplement the career firefighters who worked daytime weekday hours. After



amalgamation these areas evolved into 24-hour, seven-days-a-week career firefighting coverage. The need to have volunteers at these stations diminished with the move to career 24-hour staffing in the entire urban core. One of the recommendations in the Operational Review is to reduce the number of volunteers in our urban core from 91 to 40.

HRFE spends approximately \$340,000 a year on our urban core volunteer honorariums. By reducing that number to 40 volunteers we could reallocate about \$190,000 a year from that honorarium budget into various initiatives to boost volunteer numbers in the rural parts of the municipality.

**8. What is the history of the Hubbards MOU, and what is the budget to implement this proposed arrangement?**

The original Memorandum of Understanding (MOU) with the Hubbards District Fire Department (more than 30 volunteers) was in place for approximately five or six years and ended in the summer of 2010.

That MOU provided for a volunteer firefighter response from the Hubbards District Fire Department into the Black Point area of the Halifax Regional Municipality.

It was cancelled when Hubbards chose not to renew it. There is currently no budget assigned to any future MOU as we are still in the discussion stage of what a new MOU might look like. The previous amount paid to the Hubbards District Fire Department was in the range of \$40,000 per year.

**9. What is the normal compliment at Station #9 (Sackville – Metropolitan Blvd.)?**

In the fall of 2014 the number of career firefighters on shift at this station was boosted from three to four firefighters.

**10. How many captains work for HRFE? Can you please break it down by 'line captain' and 'staff captains', if there are both.**

There are a total of 75 line captains (81 FTE) in HRFE. Line captains are the operational point person at each station. There are eight district captains (two vacancies) responsible for scheduling training and incident safety at major emergencies.

We also have 'staff captains' not assigned to firefighting operations. They break down as follows:

- 9 Training Officers (Professional Development Training & Safety Division)
- 1 Division Captain (Professional Development Training & Safety Division)
- 1 Division Captain (Logistics Division)
- 1 Division Captain – 1 currently vacant (Fire Prevention Division)
- 2 Public Educators – 1 currently vacant (Fire Prevention Division)
- 1 Lead Fire Investigator (Fire Prevention Division)
- 12 Fire Inspectors – 1 currently vacant (Fire Prevention Division)

**11. What is the hourly rate for a captain?**

For clarity there are two Captain designations. A 'Captain 1' (more senior) and a 'Captain 2' (more junior)

A 'Captain 1' earns \$46.56 per hour.

**12. How many budgeted hours per year are dedicated to captains?**

There are 2,184 regular hours of work for line captains in one year; 2,080 for staff officers.

**13. How many budgeted overtime hours are dedicated to captains?**

HRFE does not budget overtime by position. There is a fixed amount budgeted for overtime every year and captains historically account for approximately two thirds of that overtime on an annual basis.

**14. Are captains part of the union?**

Yes, captains are members of the Halifax Professional Fire Fighters Association – IAFF Local 268.

**15. What is the age range, average age, and median age of captains?**

Captains range in age from 37 to 61-years-old. The average age is 50.72. The median age is 52.

**16. Describe what a "shift" is.**

A-B-C-D Platoon firefighters work a 24-hour shift that begins at 8 a.m. and continues until the next morning at the same time. Those firefighters are then off for three days before returning to work.

E-Platoon career firefighters (deployed at suburban/rural stations) work four 10.5-hour shifts between Monday and Friday (excluding holidays), from 7 a.m. to 5:30 p.m.

Non-operational staff (fire prevention, training, logistics, administration), work 8-hour shifts Monday to Friday.

**17. Average number of vacation hours per captain?**

Captains working on 24-hour shifts earn approximately 10-11 shifts (240 hours or 264 hours) of vacation per year plus they are provided with three additional shifts (72 hours) to compensate for not being entitled to time off during statutory holidays.

**18. What is the process for requesting captain vacation allotment?**

Vacation picks are done by shift. The most senior firefighters on the shift (regardless of rank) would have first choice, recognizing a maximum of 16 per cent of the shift can be off at any given time. Currently, that means 14 people can be off at once. The 16 per cent figure is based on the entire compliment of firefighters on a particular shift, not based on position. The ability to limit vacation allotment based on position is currently in the arbitration process.

**19. Who approves vacation time?**

The language in the collective agreement states the Fire Chief, or his designate, has the ultimate decision making power for granting vacation time.

**20. Can a volunteer captain direct career firefighters and vice versa?**

A situation could arise in which a volunteer captain is first to arrive at an emergency scene. If that was to happen then the volunteer captain would direct everyone else, including career captains. The custom is that if a higher ranking firefighter then arrives at a scene that person could assume command, regardless of their status (volunteer or career). A volunteer captain would not be able to direct career firefighters within a station.

**21. What is the ratio used to determine the total number of captains allowed on vacation and other absences?**

There is no ratio. Overall, 16 per cent of firefighters on a shift can be off at any given time. Vacation time is awarded based on seniority. The ability to limit vacation allotment based on position is currently in the arbitration process.

**22. Are captains paid more than their base salary for hours worked (other than overtime)? If so, for what?**

Captains earn a premium over what is paid to a 1<sup>st</sup> Class firefighter. A 'Captain 2' earns 16 per cent more than a 1<sup>st</sup> Class firefighter and a 'Captain 1' earns 21 per cent more than a 1<sup>st</sup> Class firefighter.

**23. Can a volunteer captain be hired as a career captain? If not, why not?**

The short answer is no. A volunteer captain cannot be hired directly into the career service as a captain. The Collective Agreement stipulates a career firefighter has to serve 10 years in that capacity before being eligible to write a captain's exam.

However, there is a scenario in which a volunteer captain could temporarily assume the duties of a career captain if an entire volunteer crew was temporarily brought in for a shift to replace absent career firefighters.

On rare occasions an entire career shift of firefighters could be unavailable. In that case volunteer firefighters could be "hired" as replacements for that shift.

This happened over the 2014 Christmas holidays at Station #9 (Sackville – Metropolitan Blvd.).

**24. How many fire prevention officers do we have? What is the average salary?**

There is a Division Captain and 15 FTE fire prevention officers (captain level). Three of those positions are currently vacant. The salary for a Fire Prevention Officer 1 is approximately \$101,000 per year (paid equivalent to a Captain 1 salary).

**25. Do any of these officers do bylaw enforcement? If so, what percentage of their work is bylaw enforcement?**

Under the M-100 Bylaw, fire prevention officers provide enforcement for residential apartment buildings (greater than four storeys), or where there is a mixed use (ie. apartments and a convenience store on the main floor). Everything else is administered by Bylaw Services. This is expected to soon change with the move of all residential inspections to the Municipal Compliance Division (as outlined in our Operational Review staff report).

Fire inspections/life safety inspections take up 100 per cent of the job for fire inspectors. But these inspections are conducted under the provincial Fire Safety Act, not municipal bylaws.

**26. Do fire prevention officers receive the same pay as regular firefighters?**

No. They are paid at a captain's wage, which is either 16 per cent more than a 1<sup>st</sup> Class firefighter (Fire Prevention Officer 2), or 21 per cent more than a 1<sup>st</sup> class firefighter (Fire Prevention Officer 1).

**27. What was the full complement of firefighters at the time of amalgamation in 1996 compared to now?**

At the time of amalgamation there were 477 firefighters. That number dropped in the following year to 393 firefighters after the dust settled on merging several fire departments into one. Currently, we have a complement of 406 FTE firefighters.

**28. How many staff do we have in administration and what are their titles?**

HRFE has one chief, two deputies and one executive fire officer.

Two and a half years ago a review was done of the senior management ranks and the entire level of Assistant Deputy Chief was eliminated (three positions). Three other senior management positions were also eliminated (2 Division Chiefs and 1 District Chief), resulting in a 25 per cent reduction of the upper management team.

**29. How many captains do we have? How many promotions to captain have we had in the last few years?**

We have 81 FTE captains with 75 positions currently filled. Five of those captains were promoted in the last six months.

**30. Do we have an aerial ladder truck in HRM? How often has it been brought to Dartmouth? When is it needed?**

Yes. It is currently in the West Street station (Station #3). It is limited to water tower operations only because there are just two firefighters assigned to it. Those two firefighters are also assigned to the Heavy Rescue Unit.

With a four-person crew on the aerial truck, HRFE would be able to use it for several other emergency response functions such as rescues, building ventilation, and forced entry.

The recommendation is to take the staff from the Lady Hammond (Station #4) and King Street (Station #13) stations and redeploy them on two separate aerial trucks. One would be located in the Highfield Park station (Station #12) in Dartmouth and the other would be located in the University Avenue station (Station #2) in Halifax.

The Halifax-based aerial truck would usually respond to a couple of dozen calls a year in Dartmouth. It would likely respond to more calls if it was optimally staffed with four firefighters on the truck (currently there are just two).

See also the answer to Question #49.

**31. The Regional Plan has called for increased density in the urban core. Currently, the north end of Halifax is experiencing development growth, particularly with new high rise development in the area of Young and Robie (three towers approved with several in the concept stage). As the population increases in the urban core how will fire service be affected by the closure of stations? How will increased high rise towers affect response time?**

The presence of high rise towers would not affect response times because it still takes firefighters the same amount of time to get to that area of the city from the West Street (Station #3) and Bayers Road (Station #5) fire stations.

Based on the analysis of data we deem to be reliable, as well as GIS mapping (which takes into account everything from speed limits to the number of traffic lights), we are confident response times from the West Street and Bayers Road stations will arrive in the Young and Robie streets area within the five-minute travel time target (90 per cent of the time) approved by Regional Council in 2006.

It should be noted new buildings do not pose a higher fire risk. In fact, the opposite is true. There are now more stringent building codes, internal fire protection (sprinklers) are mandated in many cases, interconnected smoke alarms in high rises are mandatory (with battery back-up), and enhanced public fire safety education initiatives are aimed at seniors and businesses.

As is the case with all calls, the risk of the emergency will determine the type of vehicles that will respond and the number of firefighters paged to respond.

Finally, there is no recommendation in the Operational Review that would see a staff reduction on the peninsula. In fact, if the HRFE recommendations are adopted there would be an increase in the number of staff on the peninsula. The end result would be a better alignment of resources based on the demands currently faced on the peninsula.

**32. There is a large seniors' population in the north end of Halifax that will increase in the future. How will the emergency medical response provided by the fire service for this population, and residents in general, be affected by the station closure at Lady Hammond?**

We would not be recommending the decommissioning of the Lady Hammond fire station (Station #4) if we felt our neighbouring fire stations could not arrive in that service area within the response time

targets approved by Regional Council in 2006. We are confident safety will not be compromised and response time targets will still be met by neighbouring fire stations if we decommission the Lady Hammond Road fire station. See also the response to Question #33.

**33. What is the role of the fire service in responding to medical emergencies? Is there a breakdown in calls of this nature for stations, specifically the Lady Hammond Station?**

HRFE provides basic medical first-responder coverage in support of the provincial ambulance service. Between 2012 and 2014 the Lady Hammond Road fire station responded to a total of 2,934 calls. Of those calls, 80 (2.73%) were logged as either a medical assist or vehicle/pedestrian accident.

**34. Are there any anticipated changes to when the fire service will respond to medical emergencies?**

HRFE is in discussions with Emergency Health Services regarding potential changes to the types of calls responded to by firefighters. HRFE has piloted a rural response that mirrors the level of response already in place in the urban core. That rural pilot project saw a reduction in the types of medical calls to which our rural firefighters would respond. That pilot project is now complete and adjustments are being considered as to the types of calls to which firefighters would respond.

**35. Is there an analysis of the impact on multi-storey seniors' residences and the need for fire services, which differs from traditional neighbourhoods?**

High rise buildings require a great deal of preventative measures, such as pre-fire planning, life-safety inspections by our Fire Prevention officers, and targeted public education initiatives for seniors. These measures are rarely followed for single-dwelling homes. Also, for more information see response to Question #31.

**36. Many residents have expressed concern about fire response from West Street (Station #3) and Bayers Road (Station #5) to the north end during rush hour traffic. Has this been documented? How will proposed station response from West Street and University Avenue meet the five-minute travel time response during rush hour?**

Firefighters are dispatched in what's called a 'dynamic response'. That means several stations could be called out at the same time to respond to the same emergency. One of the reasons for this is to allow firefighters to arrive at the scene from multiple stations and directions. If, for example, Agricola Street was especially congested then crews from Bayers Road would still likely be able to arrive in the north end within the five-minute travel time (90 per cent of the time) approved by Regional Council in 2006.

Our drivers are trained to determine the best routes to get to an emergency. In fact, they are paid a premium as recognition of this added skill. In the case of high-traffic times of the day HRFE drivers are able to use alternative routes if there's an expectation the main thoroughfares will be busy. Drivers also have the advantage of flashing red lights and sirens, as well as what's referred to as Opticom devices, which are able to change traffic light colours as they approach an intersection.

Finally, the service delivery targets approved by Regional Council in 2006 accept that HRFE will realistically be able to meet the travel time targets 90 per cent of the time. There will be situations where unforeseen circumstances such as traffic, weather, topography, or distance from a station will result in us taking longer to get to the emergency. But this is predicted to only occur 10 per cent of the time.

**37. What will happen to the Halifax Explosion monument if the Lady Hammond Road station closes?**

The monument is an important part of recognizing the municipality's firefighter history and HRFE would want to ensure the monument finds an appropriate new home if the fire station is decommissioned. It is premature to speculate where the monument would go but HRFE staff would be open to discussing potential locations with all interested parties.

**38. Industrial activity will be increasing in the north end with the ship building contract. What are the impacts on fire services as this activity increases?**

The West Street fire station (Station #3) is able to respond to the shipyard within the five-minute travel time target (90 per cent of the time) approved by Regional Council in 2006.

In fact, if the recommendations in the Operational Review are adopted it would mean we would have two fully staffed aerial trucks. An aerial platform at University Avenue (Station #2) and a Quint at West Street (Station #3) on the Halifax side of the harbour which would improve on the current response to the shipyard.

The shipyard would also have several internal fire protection capabilities (such as sprinklers), which would assist firefighters by isolating the fire to a specific area.

One advantage with all the activity anticipated at the shipyard is that there will always be people in the vicinity who will provide a natural early warning system for firefighters.

HRFE also has a mutual aid agreement with DND to expand the potential for a dynamic response.

**39. Please describe the relationship between municipal fire services and DND, the ports, and shipyard. Where do municipal fire services have a primary role?**

DND's fire service is responsible for fires on the military dockyard, at the Magazine Hill complex, Windsor Park and Willow Park. HRFE has a mutual aid agreement with DND, meaning we will assist if asked and vice versa. We have the capability to fight fires from the piers but not on water. HRFE can spray water from the dockyard onto a boat, but HRFE does not board boats to fight fires. Generally, ships are responsible for providing their own firefighting capabilities.

The container pier, shipyard, and warehouses along the waterfront are HRFE's responsibility.

**40. What are the number of calls for the Lady Hammond Road fire station and King Street fire station? Can you provide details on the nature of the calls (ie. fire or medical emergency)?**

See Attachment 4 for the Lady Hammond Road call history from 2012-2014.

See Attachment 5 for the King Street fire station call history from 2012-2014

**41. What are the specific costs for each station to be decommissioned? Please break down specifically, as opposed to collective savings?**

The following figures account for estimated capital cost avoidance (building savings) over 10 years:

- King Street (Station #13): \$635,268 saved by decommissioning the fire station
- Lady Hammond Road (Station #4): \$451,776 saved by decommissioning the fire station
- Meaghers Grant (Station #36): \$384,089 saved by decommissioning the fire station
- Patton Road – Upper Sackville (Station #11): \$185,378 saved by decommissioning the fire station
- East Ship Harbour (Station #31): \$80,662 saved by decommissioning the fire station
- Ostrea Lake (Station #25): \$52,059 saved by decommissioning the fire station
- Grand Lake (Station #43): \$0\* saved by decommissioning the fire station

*\*Cost savings are nil because HRM does not own the building*

Total estimate saved over 10 years by decommissioning all seven stations: \$1,789,232

**42. Can information be provided that outlines how many trucks of what capacity currently work out of each fire station on the peninsula, and what the compliment would be if the recommendations are adopted?**

Current complement:

- Lady Hammond Road (Station #4) currently has an engine and a four-person crew
- West Street (Station #3) currently has an engine, an aerial, and a six-person crew
- Bayers Road (Station #5) currently has a quint and a four-person crew
- University Avenue (Station #2) currently has an engine and a four-person crew

*Total: five trucks and 18 firefighters*

If recommendations are adopted:

- West Street (Station #3) would have an engine, a quint, and eight firefighters
- Bayers Road (Station #5) would continue to have a quint and four firefighters
- University Avenue (Station #2) would have an engine, an aerial, and eight firefighters

*Total: five trucks and 20 firefighters*

**43. What can a pumper (AKA engine), quint, and an aerial do and how are they staffed?**

If all the recommendations are adopted, each truck would be staffed with four firefighters.

See Attachment 6 for a photo and description of what each truck can do.

**44. How many firefighters are needed to fight an active fire?**



HRFE requires four firefighters on scene before an aggressive attack on the interior of the building can take place. That first response would soon follow with a minimum of 8-10 additional firefighters to meet the North American standard for responding to a house fire that hasn't spread.

## How many firefighters does it take to put out a “typical” structure fire? (NFPA 1710 5.2.4.2)

- The initial full alarm:

Establish:	# Firefighters
Incident Command	1
Water Supply	1
Two Hose Lines	4
Hydrant Operation	1
Search and Rescue Team	2
Raise Ladders/Aerial	2
Aerial Operations	1
Rapid Intervention Team	2
Safety Officer *	1
Total	15

For more information refer to the service delivery targets adopted by Regional Council in 2006 (<http://www.halifax.ca/council/agendasc/documents/FireEmergencyServiceDelivery.pdf>).

### **45. What level of firefighter is needed (captain, etc.) on the scene to actively fight a fire?**

According to the service delivery targets approved by Regional Council (see link above), a total of 12 operational personnel would be required at the scene within eight minutes. That would include an officer on each truck. In addition to the operational personnel HRFE requires an Incident Safety Officer and Chief Officer/Incident Commander at the scene.

### **46. Given the re-decking work being done on the Macdonald Bridge in 2015-16 (which will require overnight closures and some weekend closures), is the decommissioning of fire stations in the urban core appropriate prior to the completion of this work?**

HRFE is confident public safety will not be compromised and the Council-approved response targets will continue to be met after decommissioning the King Street (Station #13) and Lady Hammond Road (Station #4) stations.

Five-minute travel time targets were calculated without considering any kind of access over either bridge. In other words, HRFE believes both bridges could be out of commission at the same time and the department is still confident response time targets would continue to be met (90 per cent of the time) if the King Street (Station #13) and Lady Hammond Road (Station #4) stations were decommissioned.

Response time conclusions were only reached after looking at same-side-of-the-harbour data and mapping.

**47. Please provide me with the following information regarding Station 13 (King Street): Number of calls for service in 2014 with the breakdown for each call.**

See attachment 7

When analyzing the 2014 data it was noteworthy that the Quint at King Street (Station #13) actually responded to more calls outside its catchment area (885 calls) than it did in its own catchment area (334).

**48. What do all the acronyms in the Operational Review staff report stand for?**

**FUS** stands for Fire Underwriters' Survey. It was conducted by a company called OPTA Information Intelligence. Essentially they looked at all aspects of our service - management structure, operational guidelines & policies, fire suppression capability, training, fire prevention and public education. They also looked at water supply, etc. They identified potential weaknesses and solutions. They also assign a rating to the area surrounding each of our stations. The rating is used by the insurance industry to help calculate premiums.

**POMAX** is the name of another consulting company used to help prepare this Operational Review. They have expertise in emergency communications systems. POMAX identified a number of issues and made specific recommendations for improvements. The implementation of their recommendations will help improve overall response times

**FICT** stands for HRM's Finance, Information, Communications & Technology Division. The FICT Enterprise Architecture Team reviewed HRFE's technology requirements and developed a five-year roadmap/plan to help modernize the fire service. They looked at all HRFE business processes and identified areas that could benefit from modern technology and process improvements. HRFE needs reliable data to make evidence-based business decisions. Improvements in technology will improve response times.

**RP+5** is the regional plan. HRFE looked at projected growth areas throughout the municipality to identify optimum fire station locations. One example is relocating Station #8 (Bedford) and Station #9 (Metropolitan Blvd., Sackville) to address coverage gaps in the Bedford West/Hammonds Plains area and

reduce coverage overlaps between Station #9 (Metropolitan Blvd., Sackville) and Station #10 (Sackville Drive).

**CMEL** is the name of an engineering firm commissioned by HRM's Planning & Infrastructure's Facilities Section. This was a comprehensive review of all HRFE work locations. They looked at all aspects of the structures including replacement lifecycles and estimated costs. This is where the estimates for capital cost avoidance came from.

**49. Residents are asking why would an aerial truck be stationed at Highfield Park when the majority of taller buildings are downtown, some of which are occupied by the most senior of our population.**

Aerials serve a greater purpose than just high-rise building fires.

To understand why certain fire trucks are located at specific fire stations one first has to look at the number of high-risk structures in a particular fire station's catchment area. The greater the number of high-risk structures, the greater the need for multiple trucks (and variety of truck) in close proximity to those high-risk structures.

In other words, the question HRFE asks is: What is the Required Fire Flow (RFF) needed to extinguish a fully involved fire?

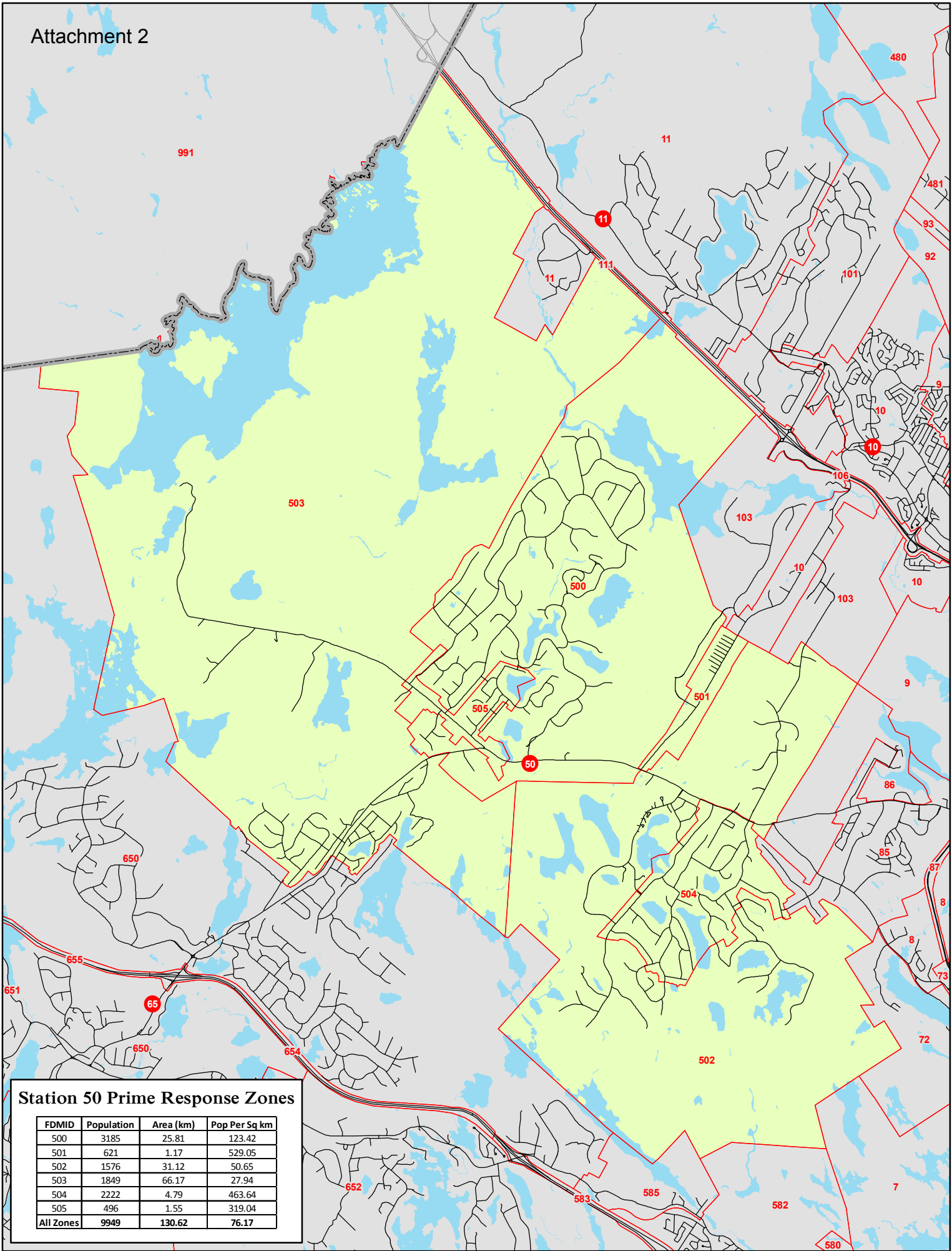
The average two storey wood frame home requires a RFF of 1,200 gallons per minute. High-risk structures require a RFF of 3,000 gallons or more per minute.

An aerial truck is critical as part of the second wave of response for a fire service because it provides that extra muscle at the scene to allow firefighters to get over the 3,000 gallons per minute requirement for fighting high-risk structure fires. The aerial truck also provides firefighters with the ability for an elevated and more versatile attack on difficult to reach structures.

HRFE is recommending an aerial truck for the Highfield Park station (Station #12) because it has 125 high-risk structures in close proximity to that station, compared to 38 high-risk structures in the King Street station (Station #13) catchment area.

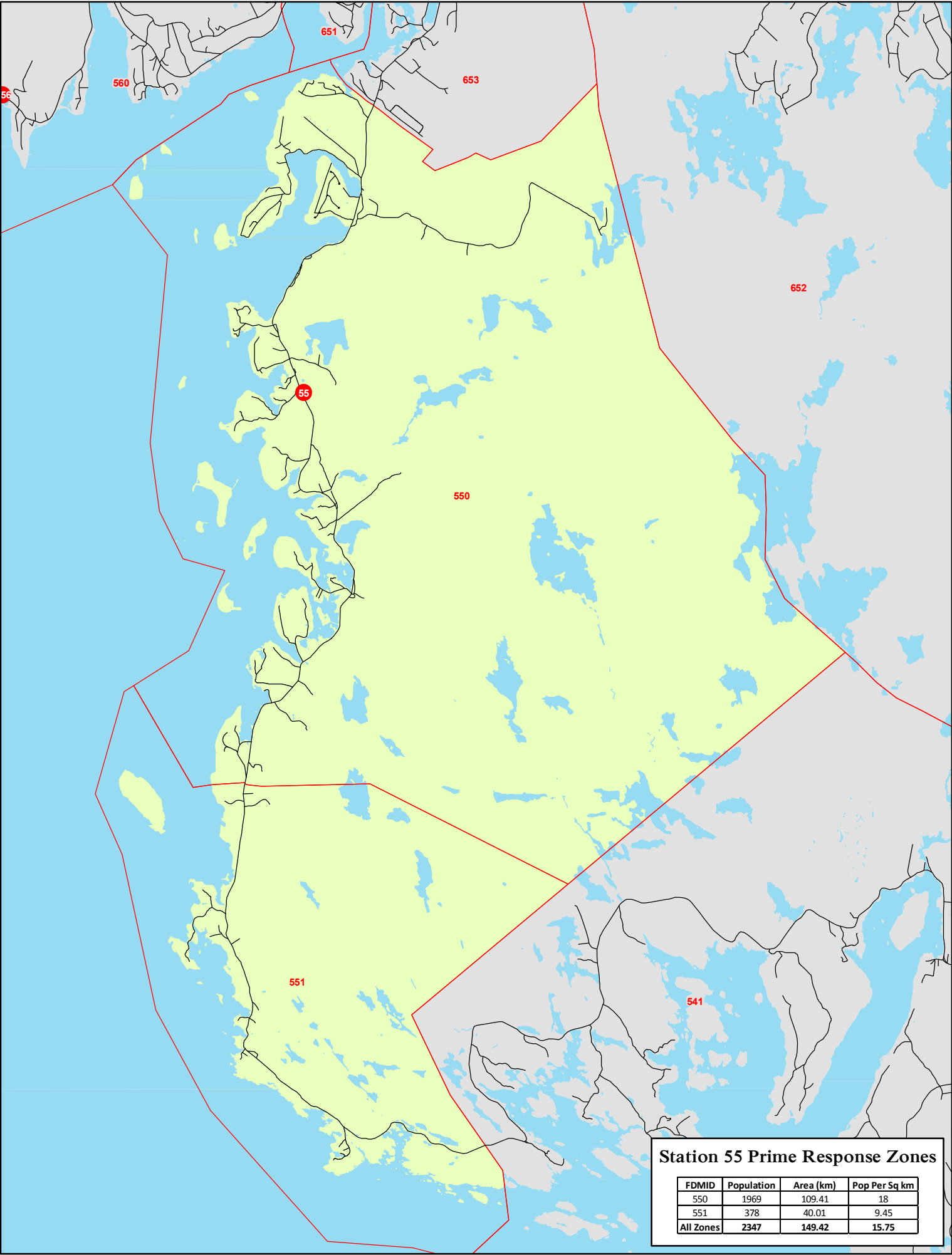
Having the aerial at the Highfield Park station (Station #12) means all of the Burnside Industrial Park would be protected, while at the same time the truck is positioned to arrive in the King Street area of Dartmouth within the Council-approved travel time requirement, 90 per cent of the time.

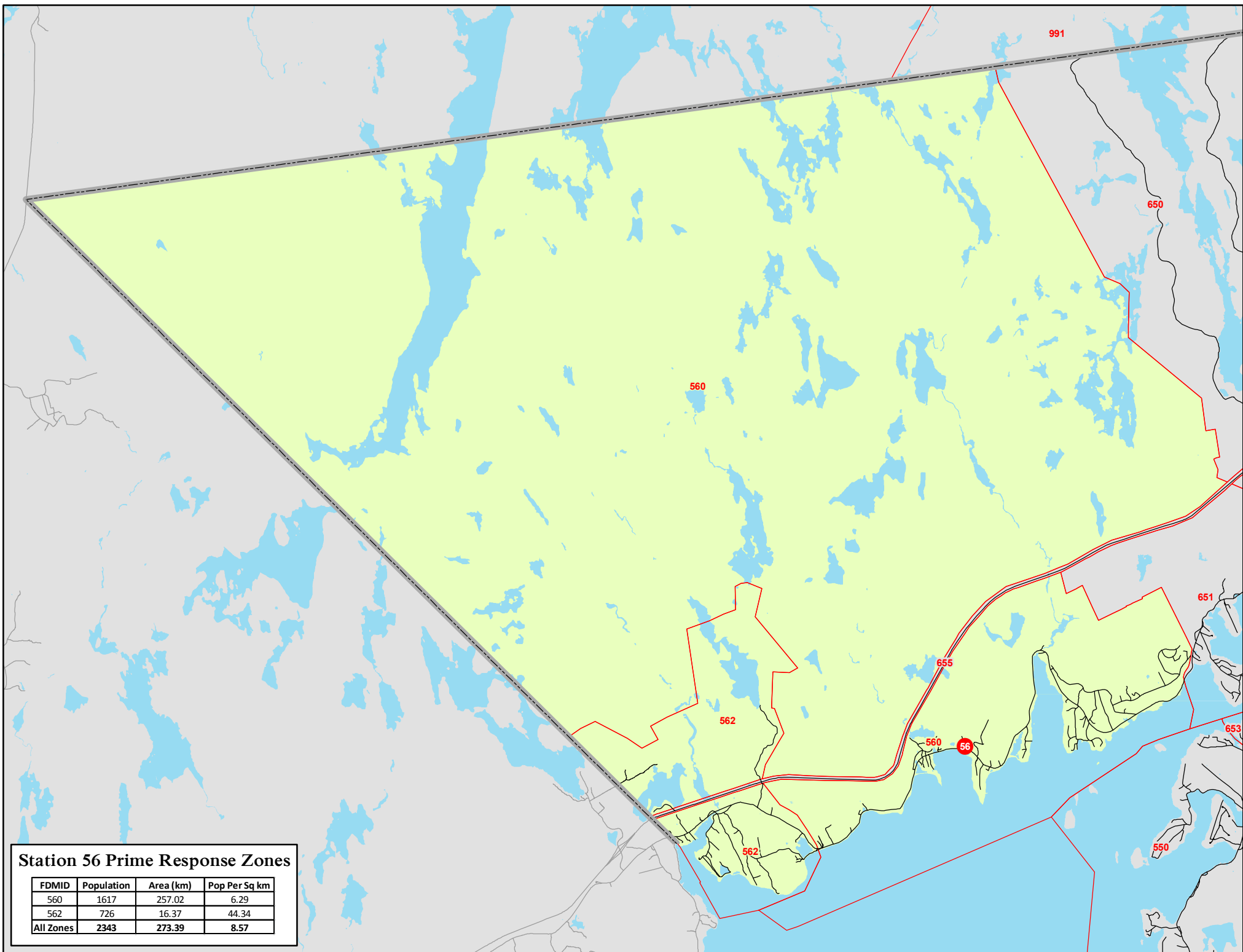
The recommendation to place an aerial truck at the Highfield Park station (Station #12) rather than at the King Street station (Station #13) is also backed up by the independent review of the fire service, carried out by OPTA Information Intelligence's Fire Underwriters Survey.

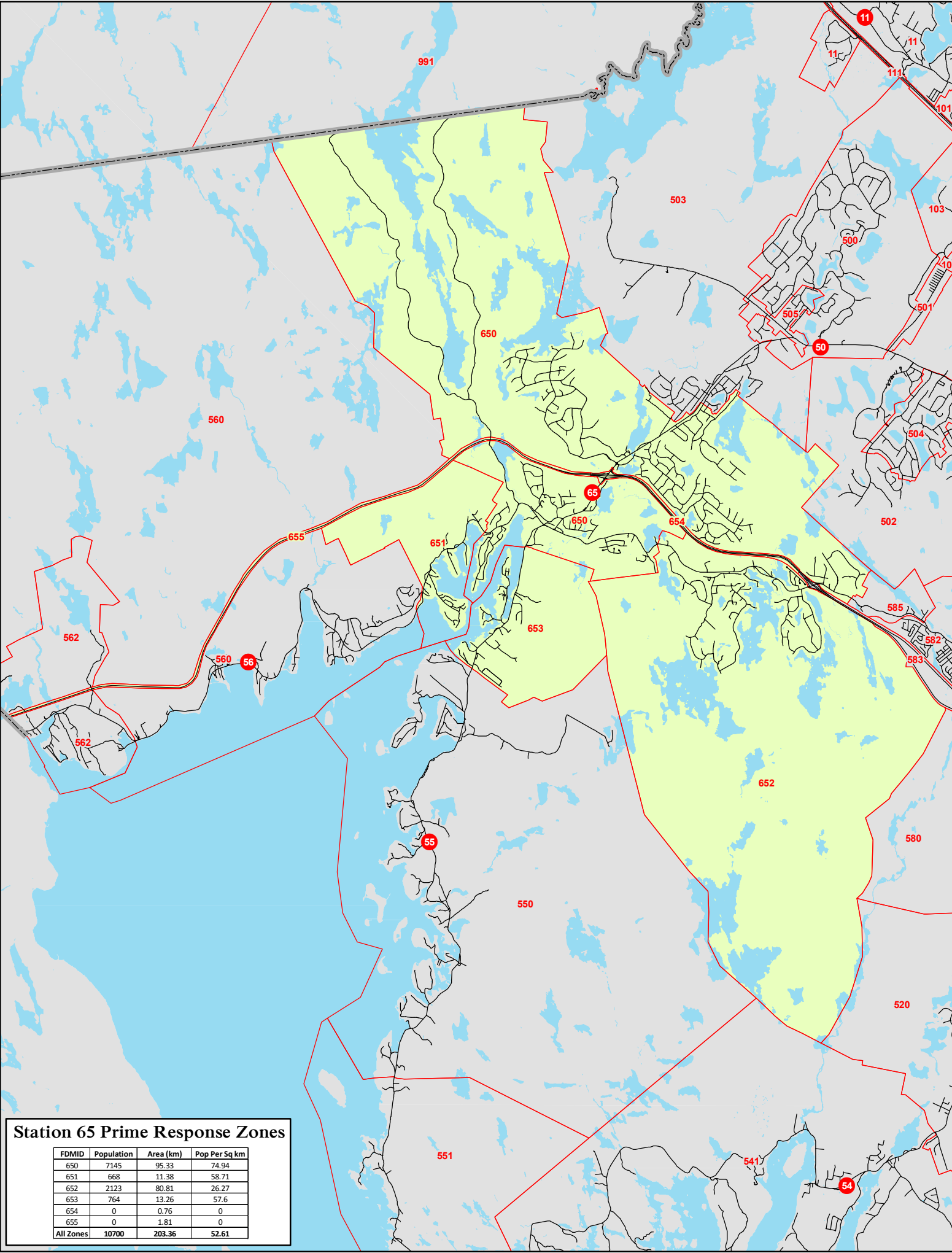


Station 50 Prime Response Zones

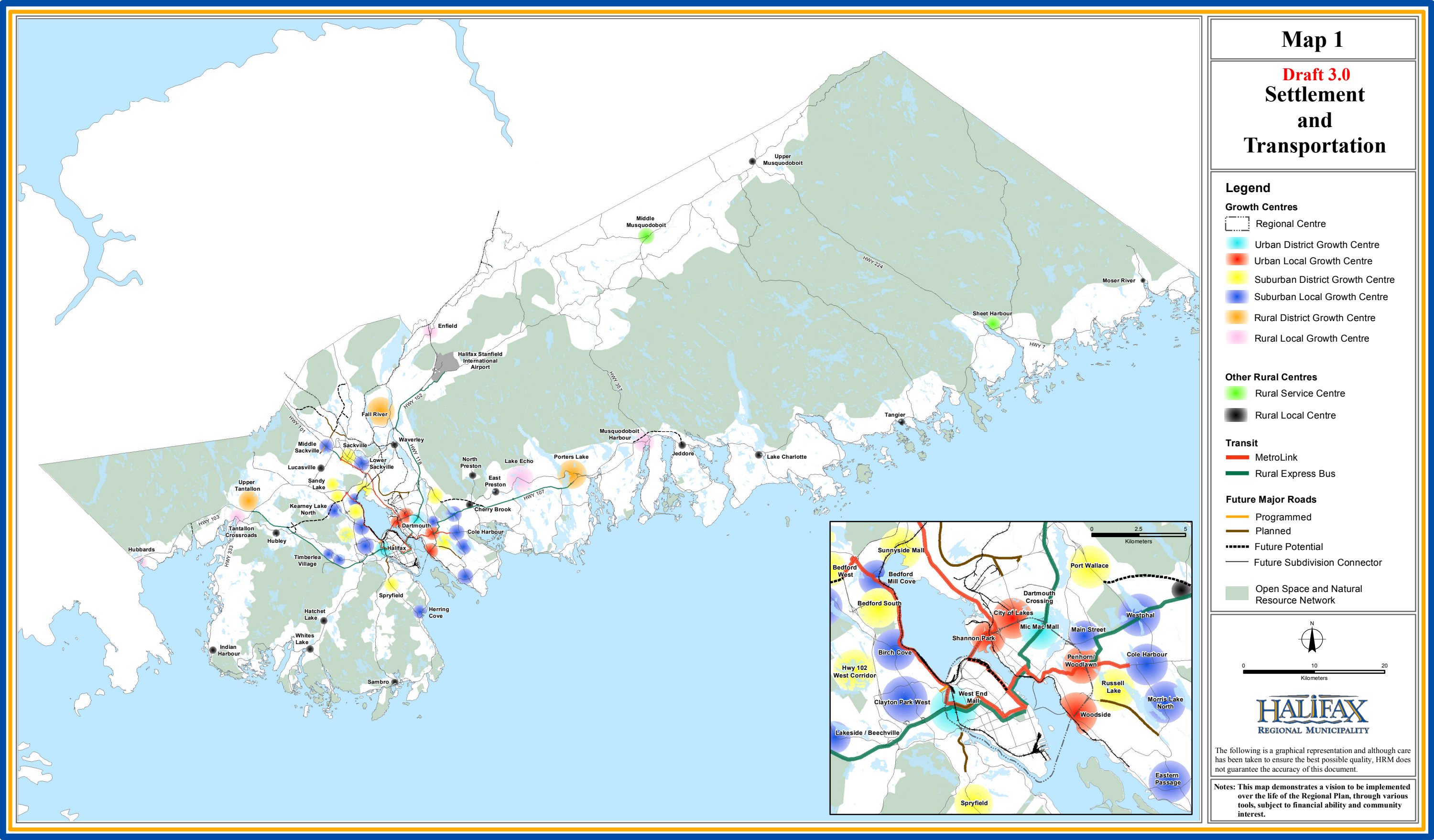
FDMID	Population	Area (km)	Pop Per Sq km
500	3185	25.81	123.42
501	621	1.17	529.05
502	1576	31.12	50.65
503	1849	66.17	27.94
504	2222	4.79	463.64
505	496	1.55	319.04
All Zones	9949	130.62	76.17















# Station 04 Total Incidents - 2012 to 2014 Inclusive

Halifax Regional Fire and Emergency

Nearing, Stephen  
20/01/2015 13:11:37

**Total Incidents: 2934**

000 - Services Not Required	138	<b>4.70 %</b>
002 - Cancelled before response	2	<b>0.07 %</b>
003 - Cancelled on route	23	<b>0.78 %</b>
004 - Cancelled on scene	19	<b>0.65 %</b>
1001 - By Law Investigation	2	<b>0.07 %</b>
101 - Structure Fire - Major	17	<b>0.58 %</b>
102 - Structure Fire - Minor, Rm/bldg	62	<b>2.11 %</b>
103 - Structure contents only fire	19	<b>0.65 %</b>
104 - Appliance Fire	18	<b>0.61 %</b>
105 - Electrical Fire	16	<b>0.55 %</b>
106 - Chimney/woodstove fire	6	<b>0.20 %</b>
107 - Brush, grass or forest fire	25	<b>0.85 %</b>
108 - Vehicle fire	14	<b>0.48 %</b>
109 - Marine fire	2	<b>0.07 %</b>
111 - Enclosed Garbage/debris Fire	19	<b>0.65 %</b>
112 - Open Garbage/debris Fire	20	<b>0.68 %</b>
113 - Illegal Burning	9	<b>0.31 %</b>
114 - Fire, Cooking equipment	46	<b>1.57 %</b>
115 - Fire, Nuisance/Vandalism (outside)	13	<b>0.44 %</b>
116 - Fire, flammable gas/liquid	1	<b>0.03 %</b>
117 - Fire, Furnace/heating equipment	2	<b>0.07 %</b>
119 - Utility Pole Fire	5	<b>0.17 %</b>
201 - False Alarm - malicious	88	<b>3.00 %</b>
202 - False Alarm, fault/accident	1059	<b>36.09 %</b>
203 - CO Alarm activated	8	<b>0.27 %</b>
204 - Detector/sprinkler activated	438	<b>14.93 %</b>
301 - Smoke/odor investigation	224	<b>7.63 %</b>
302 - CO Investigation	9	<b>0.31 %</b>
303 - Investigation	230	<b>7.84 %</b>
304 - Outdoor Burning Appliance/comp	25	<b>0.85 %</b>
401 - Motor Vehicle accident	156	<b>5.32 %</b>
402 - Vehicle pedestrian accident	14	<b>0.48 %</b>
403 - Industrial Accident	2	<b>0.07 %</b>
501a - Gas/oil spill - minor	16	<b>0.55 %</b>
502 - L.P. Gas	2	<b>0.07 %</b>
502a - L.P. Gas - Minor leak	10	<b>0.34 %</b>
503 - Chemical spill/leak	5	<b>0.17 %</b>
504 - Natural Gas Leak/Incident	3	<b>0.10 %</b>
601 - Special Service	20	<b>0.68 %</b>
602 - Mutual Aid	1	<b>0.03 %</b>
603 - Assist Police/other	3	<b>0.10 %</b>
605 - Water, leaks/floods	43	<b>1.47 %</b>
606 - Electrical Wire Problem	19	<b>0.65 %</b>
607 - Other Wire Problem	3	<b>0.10 %</b>
701 - Water/Ice Rescue	1	<b>0.03 %</b>
704 - Other Rescue	1	<b>0.03 %</b>
801 - Medical Assistance	34	<b>1.16 %</b>
802 - Medical - Assist Ambulance	32	<b>1.09 %</b>
997 - Test Call	8	<b>0.27 %</b>
998 - Duplicate 911 call	2	<b>0.07 %</b>



## Station 13 Total Incidents - 2012 to 2014 Inclusive

Halifax Regional Fire and Emergency

Nearing, Stephen  
20/01/2015 13:13:34

**Total Incidents: 3750**

000 - Services Not Required	95	<b>2.53 %</b>
002 - Cancelled before response	2	<b>0.05 %</b>
003 - Cancelled on route	28	<b>0.75 %</b>
004 - Cancelled on scene	29	<b>0.77 %</b>
1001 - By Law Investigation	15	<b>0.40 %</b>
101 - Structure Fire - Major	55	<b>1.47 %</b>
102 - Structure Fire - Minor, Rm/bldg	141	<b>3.76 %</b>
103 - Structure contents only fire	33	<b>0.88 %</b>
104 - Appliance Fire	37	<b>0.99 %</b>
105 - Electrical Fire	28	<b>0.75 %</b>
106 - Chimney/woodstove fire	17	<b>0.45 %</b>
107 - Brush, grass or forest fire	42	<b>1.12 %</b>
108 - Vehicle fire	35	<b>0.93 %</b>
109 - Marine fire	8	<b>0.21 %</b>
111 - Enclosed Garbage/debris Fire	48	<b>1.28 %</b>
112 - Open Garbage/debris Fire	32	<b>0.85 %</b>
113 - Illegal Burning	17	<b>0.45 %</b>
114 - Fire, Cooking equipment	85	<b>2.27 %</b>
115 - Fire, Nuisance/Vandalism (outside)	29	<b>0.77 %</b>
116 - Fire, flammable gas/liquid	7	<b>0.19 %</b>
117 - Fire, Furnace/heating equipment	8	<b>0.21 %</b>
119 - Utility Pole Fire	2	<b>0.05 %</b>
201 - False Alarm - malicious	130	<b>3.47 %</b>
202 - False Alarm, fault/accident	1206	<b>32.16 %</b>
203 - CO Alarm activated	6	<b>0.16 %</b>
204 - Detector/sprinkler activated	361	<b>9.63 %</b>
301 - Smoke/odor investigation	341	<b>9.09 %</b>
302 - CO Investigation	8	<b>0.21 %</b>
303 - Investigation	349	<b>9.31 %</b>
304 - Outdoor Burning Appliance/comp	41	<b>1.09 %</b>
401 - Motor Vehicle accident	195	<b>5.20 %</b>
402 - Vehicle pedestrian accident	32	<b>0.85 %</b>
403 - Industrial Accident	2	<b>0.05 %</b>
501a - Gas/oil spill - minor	17	<b>0.45 %</b>
502 - L.P. Gas	4	<b>0.11 %</b>
502a - L.P. Gas - Minor leak	10	<b>0.27 %</b>
503 - Chemical spill/leak	15	<b>0.40 %</b>
504 - Natural Gas Leak/Incident	7	<b>0.19 %</b>
601 - Special Service	37	<b>0.99 %</b>
603 - Assist Police/other	3	<b>0.08 %</b>
605 - Water, leaks/floods	34	<b>0.91 %</b>
606 - Electrical Wire Problem	27	<b>0.72 %</b>
607 - Other Wire Problem	1	<b>0.03 %</b>
701 - Water/Ice Rescue	19	<b>0.51 %</b>
702 - High Angle Rescue	1	<b>0.03 %</b>
704 - Other Rescue	6	<b>0.16 %</b>
801 - Medical Assistance	40	<b>1.07 %</b>
802 - Medical - Assist Ambulance	56	<b>1.49 %</b>
997 - Test Call	4	<b>0.11 %</b>
998 - Duplicate 911 call	4	<b>0.11 %</b>
Non HRM Incident	1	<b>0.03 %</b>

## Attachment 6

### Engine/Pumper



An engine's primary purpose is to pump water onto a fire. It has several methods of pumping water onto the fire; the most common method is to pass water from a pump through hoses to the fire, from an array of valves. It may also have a fixed pumping "cannon", which can direct the water as pointed by the operator. A fire engine may have an on-board water reservoir allowing firefighters to begin tackling the fire immediately or it may be completely reliant on external sources, such as fire hydrants, water tenders, natural sources such as rivers or reservoirs by using draft water suction.

### Quint



A Quint is capable of performing multiple tasks (pump, water tank, fire hose, aerial device, and ground ladders) with each of these functions making up one of its five (Quint) capabilities.

## **Tanker**



A tanker truck's primary purpose is to transport large amounts of water to the fireground to make it available for extinguishing operations. These apparatus are especially useful in rural areas where fire hydrants are not readily available and natural water resources are insufficient or difficult to exploit.

## **Tactical Support**



Tactical support trucks carry specialized equipment to the incident scene such as additional breathing apparatus air tanks and HAZMAT equipment.

## Aerial



Aerials have a number of functions including:

- Allowing access or egress of firefighters and casualties at height;
- Providing a high-level water point for firefighting (elevated master stream);
- Providing a platform from which tasks such as ventilation or overhaul can be executed.

Some aerials are articulated, which allows the arm to bend in one or more places, giving it the ability to go "up and over" an obstacle (such as a building roof). Most are designed to reach a height of around 33 metres (100 feet), but can be restricted by building access and overhead obstacles.





## 2014 - Station 13 Total Incidents

Halifax Regional Fire and Emergency

Nearing, Stephen  
15/01/2015 16:59:27

**Total Incidents: 1219**

000 - Services Not Required	34	<b>2.79 %</b>
002 - Cancelled before response	1	<b>0.08 %</b>
003 - Cancelled on route	14	<b>1.15 %</b>
004 - Cancelled on scene	7	<b>0.57 %</b>
1001 - By Law Investigation	1	<b>0.08 %</b>
101 - Structure Fire - Major	17	<b>1.39 %</b>
102 - Structure Fire - Minor, Rm/bldg	20	<b>1.64 %</b>
103 - Structure contents only fire	7	<b>0.57 %</b>
104 - Appliance Fire	7	<b>0.57 %</b>
105 - Electrical Fire	5	<b>0.41 %</b>
106 - Chimney/woodstove fire	5	<b>0.41 %</b>
107 - Brush, grass or forest fire	5	<b>0.41 %</b>
108 - Vehicle fire	9	<b>0.74 %</b>
109 - Marine fire	3	<b>0.25 %</b>
111 - Enclosed Garbage/debris Fire	10	<b>0.82 %</b>
112 - Open Garbage/debris Fire	8	<b>0.66 %</b>
113 - Illegal Burning	4	<b>0.33 %</b>
114 - Fire, Cooking equipment	22	<b>1.80 %</b>
115 - Fire, Nuisance/Vandalism (outside)	7	<b>0.57 %</b>
117 - Fire, Furnace/heating equipment	2	<b>0.16 %</b>
201 - False Alarm - malicious	35	<b>2.87 %</b>
202 - False Alarm, fault/accident	469	<b>38.47 %</b>
203 - CO Alarm activated	2	<b>0.16 %</b>
204 - Detector/sprinkler activated	130	<b>10.66 %</b>
301 - Smoke/odor investigation	84	<b>6.89 %</b>
302 - CO Investigation	4	<b>0.33 %</b>
303 - Investigation	125	<b>10.25 %</b>
304 - Outdoor Burning Appliance/comp	19	<b>1.56 %</b>
401 - Motor Vehicle accident	67	<b>5.50 %</b>
402 - Vehicle pedestrian accident	8	<b>0.66 %</b>
403 - Industrial Accident	2	<b>0.16 %</b>
501a - Gas/oil spill - minor	4	<b>0.33 %</b>
502a - L.P. Gas - Minor leak	1	<b>0.08 %</b>
503 - Chemical spill/leak	2	<b>0.16 %</b>
504 - Natural Gas Leak/Incident	3	<b>0.25 %</b>
601 - Special Service	13	<b>1.07 %</b>
603 - Assist Police/other	1	<b>0.08 %</b>
605 - Water, leaks/floods	8	<b>0.66 %</b>
606 - Electrical Wire Problem	8	<b>0.66 %</b>
607 - Other Wire Problem	1	<b>0.08 %</b>
701 - Water/Ice Rescue	9	<b>0.74 %</b>
704 - Other Rescue	1	<b>0.08 %</b>
801 - Medical Assistance	8	<b>0.66 %</b>
802 - Medical - Assist Ambulance	26	<b>2.13 %</b>
998 - Duplicate 911 call	1	<b>0.08 %</b>