



Report To: Program Planning Committee
From: Michael MacIsaac
Chief of EMS
Date: May 25, 2011
Re: Future Staffing Levels

RECOMMENDATION

That the Program Planning Committee accepts this report as a means of providing information on future Staffing Levels.

Purpose

As per recommendation #114 of the Manitoulin-Sudbury DSB Strategic Plan of 2009,

“the service delivery arrangements and the distribution of staff should be formally reviewed at a minimum annually by the CAO, Director of Finance and the EMS Director (Chief). This should be done in a timely manner to assist with the preparation of the following year’s budget. Any potential changes should come to the Board as a proposal with all applicable costs identified. The proposal should show true cost of the existing service pattern including call-out expenditures compared to any proposed new service level. Urgent service delivery concerns need to be brought to the Board’s attention as soon as feasible.”

It is with this in mind that this report is being produced in time for consideration for the 2012 budget year.

Background

The most recent staffing level change occurred in 2009 with the introduction of an additional 12 hours per night of staffing to the Hagar station. At the time, Hagar had a 12-hour day shift followed by a 12-hour period of being totally unstaffed. This presented a problem in years previous as after 7 pm every day the Sudbury East area was left with only one crew on-site, in Noëlville, and that was only until 11 pm Monday to Thursday. After 11 pm and until 7 am Monday to Thursday there was no on-site coverage at all in the area. Noëlville and Killarney were staffed with on-call paramedics.

It is important to understand the difference between on-site staffing and on-call staffing. Historically, in many parts of the province there has been a mix of on-site

and on-call staffing. As the names imply, on-site staffing requires that the staff be at the base while on-call staffing does not but requires that they are available for recall. When on site, employees have a legislated mandate of an out-of-station chute time (mobile to an emergency call) within 2 minutes of being notified. In actuality we have made it our internal policy for a chute time of 90 seconds in the best interests of the patient. While on site, paramedics are paid a full wage and the hours worked count towards their seniority. When on call, employees are not obligated to remain at base but must be available for return to work and have an out-of-station chute time within 10 minutes. While on call, they are paid an on-call rate of \$5.00 per hour and when they are called in to respond they are paid a minimum of 4 hours at overtime rates (time and one-half) of on-site wages. Hours when called in count towards seniority for actual hours worked and they may bank their callout to be used as time off at a later date.

On-call arose out of the idea that it was not financially feasible nor operationally logical to staff at a full complement for the hours in question. As time progresses and call volumes increase it is essential to evaluate the service delivery arrangements, as the strategic plan astutely notes.

The Hagar Results

As previously noted, the Hagar Station was the most recently assessed station for staffing levels. There were a number of factors involved that resulted in the decision to staff an additional 12 hours per day. Included were the lack of coverage in the area with the liability it presented, the implications of alternative staffing levels, and the level of responsibility that we had as an organization to staff our area instead of having outside agencies service our calls. The cost to upstaff the Hagar base was budgeted at an additional \$450,800. It is important to note that at the time there was some question of whether the Ministry of Health & Long-Term Care (MOHLTC) would fund such an increase to staffing. Once we received our funding announcement we found that our operating costs including this increase were approved without question. We would suggest this would be in keeping with the MOHLTC's stated goal to fund EMS across the province on a true 50/50 basis and have no reason to suggest that other future staffing level increases would not be subject to the same treatment.

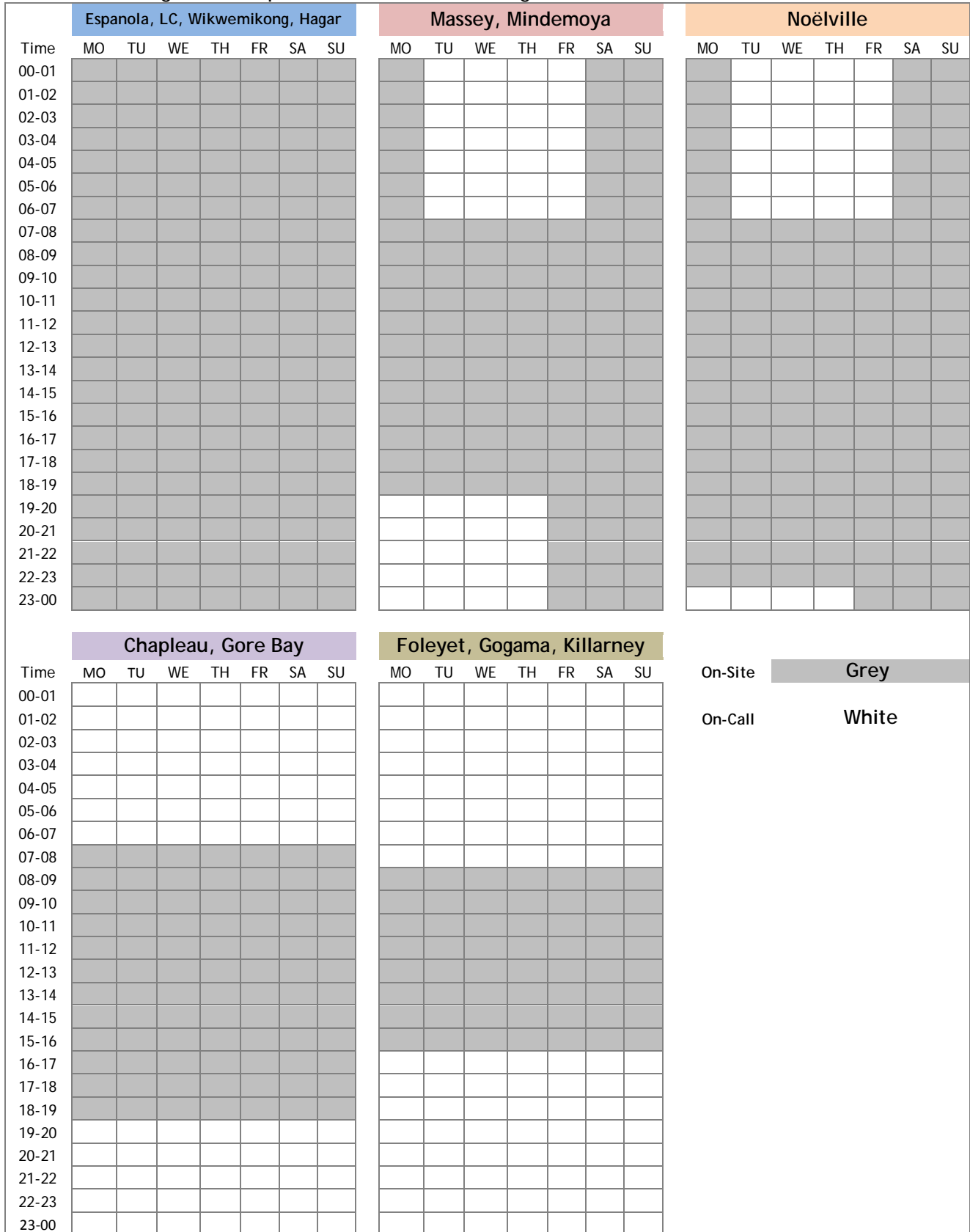
Call volumes for the Hagar base as well as Noëlville and Killarney bases are as follows for the 2 years prior to and 2 years after the change.

Station	2007	2008	2009	2010
Noëlville	901	891	888	968
Hagar	604	785	1170	1,034
Killarney	139	131	232	181

As noted the increased staffing levels had the effect of raising call volumes in Hagar but interestingly enough call volumes in Noëlville and Killarney did not conversely decrease.

Current Staffing

The following chart depicts our current staffing levels.



Four out of our twelve stations have 24/7 staffing and at this point are not part of a review for additional staffing. Of the remaining 8 stations, 3 (Mindemoya, Massey & Noëlville) have a hybrid system of both on-site day and on-call night periods depending on day of week. Mindemoya, Massey and Noëlville all have 24-hour staffing on Fridays, Saturdays, and Sundays. Two of the remaining stations (Chapleau and Gore Bay) run 12-hour day and 12-hour on-call night shifts. The last 3 stations (Foleyet, Gogama, and Killarney) consist of 8 hours on-site day shift coverage and 16 hours on-call night shift coverage.

Impacts of On-Call Staffing

There are many impacts relating to on-call staffing. First, the impact on Health and Safety must be reviewed. The Health and Safety of our employees is of utmost importance to us as an employer. Many of our departmental specific policies and procedures deal directly with the Health and Safety of our employees. Even prior to the recent introduction of Bill 168, we adhered to best practice principles when it came to safety. Currently, we have a system in place to check on a crew if they are not heard from within 5 minutes of arriving at a scene. We have an automatic Duty Officer notification system in place to notify our management staff if there is a perceived threat to Health and Safety. When standardizing our schedules in 2007 we allowed the ability to work 5 straight on-call shifts in a row with the understanding that the staff would notify us if they were too tired to work due to being called in from on-call. We are now in the midst of finalizing a formal procedure by which the results of being too tired to work is documented and dealt with in a concise manner.

There must be an understanding that to achieve a 100% ability to fully staff a station with on-site hours in place of on-call hours on a cost neutral basis can never happen. If it were a cost neutral endeavour we would not have been doing our part to adhere to Health & Safety principles and the legislation in the Employment Standards Act (ESA). A review of the ESA will show that in the ambulance profession there are some exceptions, the biggest being in the hours of work clause. The ESA first indicates that the employer must give the employee 8 hours free from work between shifts regardless of profession. A second clause requires employers to give 11 consecutive hours free from performing work in each day; however here the ESA regulations give an exemption to Ambulance Services to reduce the 11 hours to 8 hours. Overall this means that our employees must be free from work for 8 hours. It is important to note that it is explicitly mentioned in the ESA that on-call hours do not count towards hours worked. But being called in to work **does** count as hours worked. The last section of the ESA that must be discussed is the section dealing with Exceptional Circumstances. Section 19 states that:

“An employer may require an employee to work more than the maximum number of hours permitted under section 17 or to work during a period that is required to be free from performing work under section 18 only as follows, but only so far as is necessary to avoid serious interference with the ordinary working of the employer’s establishment or operations:

1. *To deal with an emergency.*

2. *If something unforeseen occurs, to ensure the continued delivery of essential public services, regardless of who delivers those services.*
3. *If something unforeseen occurs, to ensure that continuous processes or seasonal operations are not interrupted.*
4. *To carry out urgent repair work to the employer's plant or equipment. 2000, c. 41, s. 19."*

As per subsection 1 and 2 this would, in essence, allow us to call our employees in, in an emergency and possibly to continue an essential public service. But this statement could be a double edged sword. First, reviewing the definition of 'emergency' we find that an emergency is a "serious, **unexpected**, and often dangerous situation requiring immediate action". So looking at our on call situation it could be argued that once being called out becomes the norm or 'expected' it wouldn't fall in the realm of emergency as listed in subsection 1. Additionally, it could be argued that once it becomes the norm, it also could not be called 'unforeseen' as listed in subsection 2.

Finally, the impact on our emergency response times must be evaluated under an on call system. An additional 8 minutes can be added to any call due to the difference in out of station chute times. Consider that an emergency call one block away from a station that could be responded to within 3 minutes during the day can take minimally 11 minutes at night. It is also noted that current call volumes during the on call period are not as accurate due to the fact that the deployment of the resources change once they go on call. The coverage area for on-site stations is broadened because of the extra 8 minutes that it could take the on call station to become mobile. In other words the next closest on site vehicle would technically travel an extra distance when the station who would normally respond is on call. This adds to the response time for areas that were already on the periphery of coverage.

The cost to the patient in increased response time is immeasurable. What is however measurable is our response time standard. The former 90th percentile standard, while flawed, was the legislated response procedure that we were to adhere to. It must be noted that over the past 6 years we have never been able to meet our 90th percentile objective. This has been noted as a recommendation in the past 4 Ambulance Service Reviews. When looking at our new response time standard, it is not overly aggressive in terms of responsiveness. It is realistic in terms of our ability to respond factoring in our geography and staffing levels, however it is not going to be looked upon as a stellar model of response. Many extenuating factors influence emergency response times but one factor that we actually have control over is our staffing levels.

Without doubt, on call staffing is important in and may never leave some communities, however going forward we must be mindful of what is best for the sick and injured, and make improvements where reasonable. Overall, it has to be said that looking at pure costs in relation to staffing will never truly tell the whole story behind whether to add to staffing or not.

Statistics

An evaluation was done on the adding of staffing to the different stations that were lacking 24/7 coverage. Many statistics can be evaluated on this issue. The following are the most appropriate applicable stats to the particular stations being evaluated.

Call outs while on call were evaluated over the past 4 years. The following chart details the findings.

<i>Callouts</i>	2007	2008	2009	2010	<i>Average</i>
Gore Bay	128	121	118	134	125
Massey	134	110	110	116	117
Mindemoya	106	116	117	127	116
Gogama	96	85	105	113	99
Chapleau	92	61	99	77	82
Killarney	48	47	56	83	58
Noëlville	47	61	50	52	52
Foleyet	20	36	43	36	34
TOTALS	669	636	697	735	684

From a pure numerical perspective the statistics above indicate which stations received the most calls while on call. But these numbers do not factor in the imbalance of on call. Some of these stations were on call for 365 days each year while others were on call substantially less.

The following chart depicts a percentage of time that the crews are being called in on the basis of callouts per number of on call days per year (the number of on call days being noted in parentheses).

% of Time Called Out (days)	2007	2008	2009	2010	<i>Average</i>
Massey (208 days of on call)	64.4%	52.9%	52.9%	55.5%	56.4%
Mindemoya (208 days of on call)	50.7%	55.8%	56.0%	60.8%	55.8%
Gore Bay (365 days of on call)	34.9%	33.2%	32.2%	36.6%	34.2%
Gogama (365 days of on call)	26.2%	23.3%	28.6%	30.8%	27.2%
Noëlville (208 days of on call)	22.4%	29.1%	24.0%	24.8%	25.1%
Chapleau (365 days of on call)	25.1%	16.7%	27.1%	21.1%	22.5%
Killarney (365 days of on call)	13.2%	12.9%	15.3%	22.6%	16.0%
Foleyet (365 days of on call)	5.5%	9.7%	11.8%	9.7%	9.2%

The numbers above reflect a greater accuracy of the amount of time that the on call crews were being called in. As you can note, there are 2 stations (Massey & Mindemoya) that get called in to work more often than not when on call. In other

words there is a greater than 50/50 chance that they will be woken up or called out of their homes during the nights when they are on call. While these numbers represent a greater accuracy of the on call statistics, they can be further refined. There is also an imbalance in hours of on call. Noëlville has even a lesser opportunity to be called in because they are placed on call for only 8 hours a day as opposed to 12 hours for Mindemoya, Massey, Gore Bay, & Chapleau, and 16 hours for Gogama, Foleyet, & Killarney.

The following chart further breaks down the statistics to depict the percentage of time that the crews are being called in on the basis of call outs per hours of on call per year (the hours of on call per year in parentheses).

<i>% of Time Called Out (hours)</i>	2007	2008	2009	2010	Average
Massey (2496 hours of on call)	5.4%	4.4%	4.4%	4.6%	4.7%
Mindemoya (2496 hours of on call)	4.2%	4.6%	4.7%	5.1%	4.7%
Noëlville (1664 hours of on call)	2.8%	3.6%	3.0%	3.1%	3.1%
Gore Bay (4380 hours of on call)	2.9%	2.8%	2.7%	3.0%	2.9%
Chapleau (4380 hours of on call)	2.1%	1.4%	2.3%	1.8%	1.9%
Gogama (5840 hours of on call)	1.6%	1.5%	1.8%	1.9%	1.7%
Killarney (5840 hours of on call)	0.8%	0.8%	1.0%	1.4%	1.0%
Foleyet (5840 hours of on call)	0.3%	0.6%	0.7%	0.6%	0.6%

Monetary Consideration

There must obviously be a monetary consideration to the idea of increased staffing levels. The following table depicts the 2010 budgeted costs to staff on-call, and the 2010 actual costs of call outs.

STATION	Budgeted On-Call Premium 2010	Actual Costs based on 2010 Callouts	Actual Total On-Call Costs 2010
Noëlville	\$13,644	\$21,079	\$32,953
Mindemoya	\$20,467	\$52,308	\$68,380
Massey	\$20,467	\$47,623	\$64,089
Gore Bay	\$35,817	\$53,088	\$84,445
Chapleau	\$35,817	\$31,228	\$64,422
Gogama	\$47,756	\$43,720	\$87,803
Killarney	\$47,756	\$34,742	\$79,579
Foleyet	\$47,756	\$14,443	\$60,986
GRAND TOTAL	\$269,484	\$298,235	\$542,660

In the table below, the additional amount required to bring each station to full 24 hour coverage to the same level as the Espanola station. The 2011 figures are being used in this case to present the most realistic situation. Please note that using Espanola as a comparator is optimal since it is a historical 24/7 station with average seniority which would garner realistic estimates for the planning. Additionally noted in the table is the municipal share. As previously stated, we have no reason to believe that the MOHLTC will not approve of this staffing increase and provide their 50/50 share in our future budget submission.

STATION	2011 Approved Budget	* Actual Costs to Staff 24/7	Additional Costs to go 24/7 based on 2011 Costs	Municipal Share
Noëlville	\$ 770,913	\$ 891,339	\$ 120,426	\$ 60,213
Mindemoya	\$ 721,411	\$ 891,339	\$ 169,928	\$ 84,964
Massey	\$ 706,646	\$ 891,339	\$ 184,693	\$ 92,347
Gore Bay	\$ 547,107	\$ 891,339	\$ 344,232	\$ 172,116
Chapleau	\$ 530,151	\$ 891,339	\$ 361,188	\$ 180,594
Gogama	\$ 408,070	\$ 891,339	\$ 483,269	\$ 241,635
Killarney	\$ 378,749	\$ 891,339	\$ 512,590	\$ 256,295
Foleyet	\$ 378,683	\$ 891,339	\$ 512,656	\$ 256,328
GRAND TOTAL	\$ 4,441,730	\$ 7,130,712	\$ 2,688,982	\$ 1,344,491

* Actual costs based on 2011 Espanola staffing costs.

Conclusion

The decision to increase staffing levels must not be taken lightly. It is believed that this report will provide all encompassing guidance to the Program Planning Committee with the aim of garnering future directions for EMS staffing levels.

The purpose of this information is to provide for open dialogue with the Program Planning Committee to get their feedback in order for staff to return in June with more concrete options for the Committees consideration.