



*Office of the Auditor General / Bureau du vérificateur général*

**FOLLOW-UP TO THE 2008 AUDIT OF THE**

**OTTAWA PARAMEDIC SERVICE**

**2010**

**SUIVI DE LA VÉRIFICATION DU SERVICE PARAMÉDIC**

**D'OTTAWA DE 2008**



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## **EXECUTIVE SUMMARY**

### ***Introduction***

The Follow-up to the 2008 Audit of the Ottawa Paramedic Service was included in the Auditor General's Audit Plan.

The key findings of the original 2008 audit included:

- The City should consider replacing its existing method of dispatching ambulances and bring it in line with the North American standard. The City is currently using a model of assessing calls for ambulances that is both inefficient and inaccurate. The result is that an abnormally high number of calls are misidentified as life threatening, creating an unsustainable burden on the service;
- In 2007, approximately 85% of all calls received were categorized as requiring a "lights and siren" response compared with 35-40% using the North American standard triage methodology;
- The Province currently requires the use of this ineffective mechanism despite its shortcomings;
- Of the over 85,000 calls dispatched as life-threatening, only 21,000 were actually transported to hospital as emergencies;
- The high number of calls identified as life-threatening means that frequently the City has very few, and in many cases, no ambulances available for other responses;
- Patient offload delays at Ottawa hospitals are a major driver of response time erosion in City land ambulance services; and,
- The City budget process has failed to supply regular and timely ambulance staffing growth increments to keep pace with ongoing call volume increases occurring between 2001 and 2008.

### ***Summary of the Level of Completion***

1. The table below outlines our assessment of the level of completion of each recommendation as of December 2010:

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	4 , 6, 11, 17, 25, 26	6	18%
ACTION INITIATED	25 – 49	30, 34	2	6%
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	2, 7, 8,10, 19, 20	6	18%
COMPLETE	100	1 , 3, 5, 9, 12, 13, 14, 15, 16, 18, 21, 22, 23, 24, 27, 28, 29, 31, 32, 33	20	58%
TOTAL			34	100%

2. The table below outlines management’s assessment of the level of completion of each recommendation as of Winter 2011 in response to the OAG’s assessment. These assessments have not been audited.

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	6, 11	2	5%
ACTION INITIATED	25 – 49	17, 25, 26, 27, 30, 34	6	18%
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	1, 2, 7, 10, 19, 20, 21, 22, 23, 32, 33	11	33%
COMPLETE	100	3, 4, 5, 8, 9, 12, 13, 14, 15, 16, 18, 24, 28, 29, 31	15	44%
TOTAL			34	100%

## Conclusion

Management has made significant progress in completing or rigorously addressing three quarters of outstanding recommendations associated with the original 2008 Audit of Paramedic Service. A number of “no action” recommendations cannot yet be acted upon by the Paramedic Service or management for valid timing reasons – these “no action” assessments by the OAG do not represent a lack of commitment on the part of the Paramedic Service or management.

Of particular note from an audit follow-up perspective is the pivotal role played by the recently completed Paramedic Service 2011-2020 Master Plan. The 2011-2020 Master Plan has comprehensively addressed/resolved a wide range of complex system planning, operational and performance measurement/reporting challenges originally raised in the 2008 Audit of Paramedic Service. The remaining outstanding 2008 audit recommendations should be addressed by a series of issue-specific special projects and reports to be executed/conducted in 2011. Management compliance with almost all outstanding 2008 audit recommendations (i.e., 95% compliance rate) should be achieved no later than end of Q1 2012.

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***Acknowledgement***

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.



## RÉSUMÉ

### ***Introduction***

Le Suivi de la vérification du Service paramédic d'Ottawa de 2008 était prévu dans le Plan de vérification du vérificateur général.

Les constatations principales de la vérification initiale de 2008 sont les suivantes :

- La ville devrait envisager de remplacer sa méthode actuelle de répartition des ambulances de manière à la rendre conforme à la norme nord-américaine. La Ville utilise actuellement un modèle d'évaluation des appels pour une ambulance qui est inefficace et imprécis. Par conséquent, un nombre anormalement élevé d'appels sont catégorisés à tort comme des situations où la vie du patient est en danger, ce qui surcharge inutilement le service;
- En 2007, quelque 85 % de tous les appels reçus ont été classés comme exigeant une intervention avec « gyrophares et sirène »; ce pourcentage aurait été de 35 à 40 % si on avait utilisé la méthode de triage nord-américaine standard;
- Malgré ses lacunes, la province exige actuellement l'utilisation de ce mécanisme inefficace;
- Des quelque 85 000 appels répartis comme une situation où la vie du patient était en danger, seuls 21 000 ont été transportés à l'hôpital à titre d'urgence;
- Le nombre élevé d'appels déterminés comme étant une situation où la vie du patient est en danger signifie qu'il arrive fréquemment que la Ville a très peu d'ambulances, et souvent aucune ambulance, disponibles pour d'autres interventions;
- Les délais de débarquement des patients dans les hôpitaux d'Ottawa sont un facteur déterminant de l'érosion du temps de réponse dans les services d'ambulances terrestres de la Ville; et
- Le processus budgétaire de la Ville n'a pas assuré l'augmentation graduelle de la dotation en personnel ambulancier pour répondre aux hausses continues du volume des appels entre 2001 et 2008.

## Sommaire du degré d'achèvement

1. Le tableau ci-dessous présente notre évaluation du degré d'achèvement de chaque recommandation au mois de décembre 2010.

CATÉGORIE	POURCENTAGE COMPLÉTÉ	RECOMMANDATIONS	NOMBRE DE RECOMMANDATIONS	POURCENTAGE DU TOTAL DES RECOMMANDATIONS
PEU OU PAS DE MESURES PRISES	0 - 24	4, 6, 11, 17, 25, 26	6	18 %
ACTION AMORCÉE	25 - 49	30, 34	2	6 %
COMPLÉTÉE EN PARTIE	50 - 74	-	-	-
PRATIQUEMENT COMPLÉTÉE	75 - 99	2, 7, 8, 10, 19, 20	6	18 %
COMPLÉTÉE	100	1, 3, 5, 9, 12, 13, 14, 15, 16, 18, 21, 22, 23, 24, 27, 28, 29, 31, 32, 33	20	58 %
TOTAL			34	100 %

2. Le tableau ci-dessous présente l'évaluation de la direction concernant le degré de réalisation de chaque recommandation à l'hiver 2011 en réponse à l'évaluation du Bureau du vérificateur général. Ces évaluations n'ont pas fait l'objet d'une vérification.

CATÉGORIE	POURCENTAGE COMPLÉTÉ	RECOMMANDATIONS	NOMBRE DE RECOMMANDATIONS	POURCENTAGE DU TOTAL DES RECOMMANDATIONS
PEU OU PAS DE MESURES PRISES	0 - 24	6, 11	2	5%
ACTION AMORCÉE	25 - 49	17, 25, 26, 27, 30, 34	6	18%
COMPLÉTÉE EN PARTIE	50 - 74	-	-	-
PRATIQUEMENT COMPLÉTÉE	75 - 99	1, 2, 7, 10, 19, 20, 21, 22, 23, 32, 33	11	33%
COMPLÉTÉE	100	3, 4, 5, 8, 9, 12, 13, 14, 15, 16, 18, 24, 28, 29, 31	15	44%
TOTAL			34	100%

## Conclusion

La direction a accompli d'importants progrès dans la réalisation ou le traitement rigoureux de trois quarts des recommandations en suspens liées à la vérification originale de 2008 du Service paramédic. Quelques recommandations portant la mention « aucune mesure » ne peuvent encore être mises en œuvre par le Service paramédic ou la direction pour des raisons d'échéancier valides - ces évaluations auxquelles le BVG a donné la mention « Aucune mesure » ne représentent pas un manque d'engagement de la part du Service paramédic ou de la direction.

Du point de vue de la vérification de suivi, il est important de noter le rôle crucial qu'a joué le Plan directeur 2011-2020 du Service paramédic, récemment achevé. Le Plan directeur 2011-2020 a relevé et mené à bien de façon exhaustive tout un éventail de défis lié à la planification complexe du système, à l'établissement de rapports et aux mesures de rendement et opérationnels qui avaient été soulevés, à l'origine, dans la vérification de 2008 du Service paramédic. Le reste des recommandations non résolues de la vérification de 2008 devraient être réglées grâce à une série de projets spéciaux ciblant une question en particulier et des rapports devraient être réalisés et rédigés en 2011. La conformité de la direction en ce qui concerne presque toutes les recommandations non résolues de la vérification de 2008 (c.-à-d. un taux de conformité de 95 %) devrait être atteinte au plus tard à la fin du premier trimestre de 2012.

### ***Remerciements***

Nous tenons à remercier la direction pour la coopération et l'assistance accordées à l'équipe de vérification.



## 1 INTRODUCTION

The Follow-up to the 2008 Audit of the Ottawa Paramedic Service was included in the Auditor General's Audit Plan.

The key findings of the original 2008 audit included:

- The City should consider replacing its existing method of dispatching ambulances and bring it in line with the North American standard. The City is currently using a model of assessing calls for ambulances that is both inefficient and inaccurate. The result is that an abnormally high number of calls are misidentified as life threatening, creating an unsustainable burden on the service;
- In 2007, approximately 85% of all calls received were categorized as requiring a "lights and siren" response compared with 35-40% using the North American standard triage methodology;
- The Province currently requires the use of this ineffective mechanism despite its shortcomings;
- Of the over 85,000 calls dispatched as life-threatening, only 21,000 were actually transported to hospital as emergencies;
- The high number of calls identified as life-threatening means that frequently the City has very few, and in many cases, no ambulances available for other responses;
- Patient offload delays at Ottawa hospitals are a major driver of response time erosion in City land ambulance services; and,
- The City budget process has failed to supply regular and timely ambulance staffing growth increments to keep pace with ongoing call volume increases occurring between 2001 and 2008.

## 2 KEY FINDINGS OF THE ORIGINAL 2008 AUDIT OF THE OTTAWA PARAMEDIC SERVICE

The Paramedic Service audit has yielded significant performance findings and has identified a number of service planning and delivery improvement opportunities:

1. After initial post-amalgamation improvement in 2001-2002, 90th percentile Code 4 emergency response times in Ottawa are now at risk of eroding to a level below the legislated service standard set out in the Ambulance Act. This response time non-compliance with the Ambulance Act is occurring across the Province of Ontario - a systemic health care system failure.
2. Patient offload delays at Ottawa hospitals are a major driver of response time erosion in City land ambulance services. Offload delays caused by complex Provincial health system patient flow problems are worsening. Meaningful

resolution of Province-wide health system patient flow problems is unlikely in the short to medium term.

3. Ottawa's current triage system used to dispatch emergency calls is flawed, ineffective and contributes to system inefficiency and eroding response times (see Table below). In 2006 and 2007 approximately 85% of emergency calls were triaged as life threatening Code 4 calls requiring a "lights and sirens" response. In fact, no meaningful triaging of calls is actually occurring and scarce ambulance resources are being exhausted in an inefficient and ineffective process. Replacement of the Province's current flawed triage tool (referred to as 'DPCI') with the North American standard Medical Priority Dispatch System (known as 'AMPDS') medically derived triage tool should be a top priority. The Province has been reluctant to approve this critical triage improvement tool, despite the AMPDS precedents already in place in Toronto and Niagara. Continued Provincial unwillingness (at the staff-to-staff level of dialogue) to allow the City to adopt AMPDS should prompt a fundamental re-examination of the City's role in operating ambulance dispatch.

*Percentage Ottawa Emergency Calls Triage as "Lights & Sirens" Response*

CALL TYPE	2001	2002	2003	2004	2005	2006	2007
CODE 4	36,753	42,915	49,283	55,890	57,266	69,779	72,523
CODE 3	20,662	22,601	21,659	20,974	22 200	12,409	12,879
TOTAL	57,415	65,516	70,942	76,864	79,466	82,188	85,402
CODE 4 AS % OF TOTAL	64%	66%	69%	73%	72%	85%	85%

4. The City budget process has failed to supply regular and timely ambulance staffing growth increments to keep pace with ongoing call volume increases occurring between 2001 and 2008. Growth increments during this period were irregular and implementation was lagged over multiple years, thereby allowing call volume to overtake available ambulance resources. The result has been response time erosion and critical unit shortages.
5. As a result of increasing hospital wait times, substandard dispatch triaging, and a failure to supply ambulance unit growth increments to match increasing call volumes, the Ottawa Paramedic Service now faces frequent erosion of ambulance unit availability to deeply unsafe levels. Erosion in available units below critical

levels occurs daily, with frequent instances of zero ambulance unit availability. An eight-month survey conducted in 2007 identified 492 incidents of unit availability falling below seven available ambulances City-wide. In 22 cases the system reached zero unit availability. A significant public safety and liability outcome is possible unless City remediation is forthcoming. The table below features the audit analysis of response time impacts following critical levels of unit availability.

*Eroded Ambulance Response Times at Critical Resource Availability Levels*

CRITICAL AVAILABILITY LEVEL	90 <sup>TH</sup> PERCENTILE RESPONSE TIME FOR NEXT CALL AFTER PAGE	ADDITIONAL TIME BEYOND 2007 HIGH DENSITY SYSTEM 90 <sup>TH</sup> PERCENTILE OF 12:49
7 UNITS CRITICAL LEVEL	18:27	ADDITIONAL 5:38
6 UNITS CRITICAL LEVEL	20:56	ADDITIONAL 8:07
5 UNITS CRITICAL LEVEL	18:34	ADDITIONAL 5:45
4 UNITS CRITICAL LEVEL	21:09	ADDITIONAL 8:20
3 UNITS CRITICAL LEVEL	27:10	ADDITIONAL 14:21
2 UNITS CRITICAL LEVEL	30:00	ADDITIONAL 17:11
1 UNIT CRITICAL LEVEL	27:29	ADDITIONAL 14:40
ZERO UNITS CRITICAL LEVEL	19:23	ADDITIONAL 6:34
ALL CRITICAL LEVELS	21:34	ADDITIONAL 8:45

6. The 2007 response time analysis is troubling. In the 492 cases where critical resource levels fell below 7 available units, the next emergency call's 90th percentile response time is more than 8 minutes slower than the 2007 system-wide 90th percentile response time of 12:49.
7. Despite these significant "systemic" performance challenges beyond its immediate control, the overall audit evidence suggests that the Paramedic Service Branch operates in an efficient and effective manner that meets or surpasses many industry standards regarding quality and best practices. Single start, use of specialty teams, unit on-the-road scheduling tools, and logistics processes are all areas of clear operational excellence displayed by the Paramedic Service. Paramedic Service efficiencies have been documented by the audit team in peer benchmarking analyses and performance data verification calculations. Regrettably, these efficiencies have been absorbed by the Provincial and City generated systemic performance problems noted above.

### **3 STATUS OF IMPLEMENTATION OF 2008 AUDIT RECOMMENDATIONS**

#### **3.1 Emergency Medical Services (EMS) Performance Context**

##### **2008 Recommendation 1**

That the City of Ottawa develop an intergovernmental advocacy strategy for major system reform that focuses on securing control over the necessary components of a high performance EMS system.

##### **2008 Management Response**

Management agrees with this recommendation.

The Ottawa Paramedic Service will develop an intergovernmental advocacy strategy as part of the strategic branch review exercise in 2010.

##### **Management Representation of the Status of Implementation of Recommendation 1 as of September 30, 2010**

The Community and Protective Services Committee Chair has assumed leadership of this political strategy and is actively engaging the Ontario Minister of Health to obtain provincial authorization to implement AMPDS in the Ottawa CACC.

*Management: % complete* *90%*

##### **OAG's Follow-up Audit Findings regarding Recommendation 1**

The OAG has consulted closely with the Chief of Paramedic Service concerning the execution of an intergovernmental "advocacy" strategy designed to achieve Provincial agreement to implement AMPDS in the Ottawa CACC. The OAG notes Paramedic Service has provided appropriate support to the Community and Protective Services Committee Chair in this regard. The OAG has obtained documented, first hand knowledge of the City's active execution of the recommended intergovernmental strategy.

The OAG is satisfied that appropriate Provincial elected representatives and Cabinet Ministers (and their staff) have been contacted as required in the execution of the strategy. The OAG further concurs with management that dispatch restructuring based on AMPDS is, and should be, the primary focus/objective of the recommended intergovernmental strategy. While a final decision from the Province regarding the introduction of AMPDS in Ottawa is pending 100% implementation of this recommendation has been achieved from a City of Ottawa perspective.

*OAG: % Complete* *100%*

## **2008 Recommendation 2**

That the Paramedic Service performance measurement and reporting framework, upcoming strategic branch review exercise and existing service planning process be focussed on the management of risk events and performance erosion trends identified in this audit's 2001-07 land ambulance system performance overview.

## **2008 Management Response**

Management agrees with this recommendation.

The Paramedic Service performance measurement and reporting framework, upcoming 2010 strategic branch review exercise and existing service planning process, will be focused on the management of risk events and performance erosion trends identified in this audit's 2001-07 land ambulance system performance overview.

## **Management Representation of the Status of Implementation of Recommendation 2 as of September 30, 2010**

The performance measurement and reporting framework has been focussed on the management of risk events and performance erosion trends, as evidenced by quarterly performance reports to Council, and monthly and quarterly monitoring of key performance indicators (KPIs) by OPS's senior management team.

The existing service planning process focussed on the management of risk events and performance erosion trends, as evidenced by the 2008 Annual Report/2009 Trends report presented to CPS Committee on October 15, 2009.

The Ottawa Paramedic Service Master Plan 2011-2020 has been completed and will be presented to the new City Council in early 2011.

*Management: % complete*

*90%*

## **OAG's Follow-up Audit Findings regarding Recommendation 2**

The OAG has reviewed 2006-2009 Paramedic Service regular quarterly and annual performance reporting to Committee/Council, and concurs with management that the reported metrics address key elements of emergency medical system performance risk. The quarterly and annual reporting by Paramedic Service also documents the erosion of 90<sup>th</sup> percentile response times for each reporting period.

The OAG has also conducted an in-depth review of the Paramedic Service 2011-2020 Paramedic Master Plan. Chapter 2 of the 2011-2020 Master Plan (Figures 16-18) documents continued system performance erosion trends following the original Paramedic Service Audit. Chapter 2 of the 2011-2020 Master Plan addresses 90<sup>th</sup> percentile Code 3-4 response times, erosion of critical unit availability during peak demand periods, and patient hospital offload delays. Response time erosion is documented on a detailed quarter-by-quarter basis across 2008 and most of 2009. Response time erosion is also broken down by the high density (urban) and lower density (non-urban) system categories.

In order to complete 100% implementation of this recommendation, management needs to provide annual performance reports for 2009 and 2010 key performance metrics. These time periods have not yet been addressed through Committee/Council reporting or the 2011-2020 Master Plan. These performance reports should be provided to Committee no later than the end of Q2 2011. The reports should address average Code 3-4 response times, 90<sup>th</sup> percentile Code 3-4 response times, actual response time percentile rankings, and ACP capture trends. Paramedic Service staff confirm the required performance reports are currently being prepared for tabling with Committee/Council for Q1 and Q2 2011.

A key system risk reporting challenge will involve the production of a “best available estimate” of critical ambulance unit shortages during peak demand periods (i.e., frequency of zero available units). This reporting challenge will need to be addressed using admittedly imperfect dispatch pager data. Dispatcher pages to Paramedic Service senior management (at critical levels of ambulance availability) are the only available source of data measuring a significant system risk problem identified in the audit. A dispatch “log book” approach that simply manually records the frequency of “zero unit availability” may be an option, given the inability of current Provincial dispatch data reporting systems to provide automated reporting. A simple “best available estimate” log book approach to reporting “zero unit availability” should be put in place by the end of Q2 2011. Paramedic Service staff have agreed to pursue the log book approach to reporting “zero unit availability” during 2011.

*OAG: % Complete*

*80%*

### **Management Representation of Status of Implementation of Recommendation 2 as of Winter 2011**

Management agrees with the OAG’s follow-up audit finding.

The Paramedic Service performance measurement and reporting framework, upcoming Branch 2011 operational work-plan exercise and existing service planning process have focussed on the management of risk events and performance erosion trends as recommended, and will be finalized when brought to Committee in Q1 2011.

Beyond the scope of the original recommendation, the OAG has suggested that OPS should provide annual performance reports for 2009 and 2010 key performance metrics to Committee and Council. The 2009 Annual Report and 2010 Performance Trends Report (ACS2011-COS-EPS-0006) will be tabled with the Community and Protective Services Committee in Q1 2011.

Also beyond the scope of the original recommendation, but in response to the OAG’s follow-up assessment, a dispatch “log book” that records the frequency of “zero unit availability” will be implemented on February 1, 2011. This issue is addressed in Recommendation 17.

*Management: % complete*

*80%*

## **3.2 System-Wide Performance Constraints/Core Drivers of Service Delivery Outcomes**

### **2008 Recommendation 3**

That the City adopt a clear, transparent position regarding the current DPCI triage tool and the renewal of the Ministry communications centre contract by:

- a) Immediately petitioning the Minister of Health for a communications dispatch framework identical to the framework enjoyed by the City of Toronto;
- b) Establishing a results-based communications contract with the Ministry of Health based on outcomes and not prescriptive processes, software tools or triage methodologies;
- c) In the absence of a results based contract featuring operator choice of triage methodologies, petitioning for the opportunity to dispatch calls without triage; and,
- d) In the absence of either of the above options being accepted by the province, withdrawing from consideration for the renewed communications operator contract.

### **2008 Management Response**

Management agrees with parts a), b) and c) of this recommendation.

The branch concurs with the acquisition of AMPDS as the dispatch tool and a more liberal dispatch communications framework. Management will continue to advocate to the MOHLTC for the implementation of this tool in Ottawa.

Management disagrees with part d) of this recommendation. In management's opinion, the audit report overlooks the operational and strategic value already realized in an integrated communications centre. The City's paramedic dispatch unit has been recognized as the best performing dispatch centre (T0-T2) in the province as indicated in OMBI's 2007 public report.

The branch has found that an integrated dispatch team allows for several operational efficiencies such as, but not limited to:

- the availability of real time data enables staff to evaluate and adjust their performance on a daily basis; and,
- modification of the deployment plan in real time allows staff to adapt to changing situations in the community e.g., major events, road closures, etc.

In addition, management integration allows for common management objectives for the entire service, allowing us to meet Council and community expectations that would not be possible in two separate organizations.

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**Management Representation of the Status of Implementation of Recommendation 3 as of September 30, 2010**

This recommendation was incorporated into the scope of the Ottawa Paramedic Service Master Plan.

- a) The Minister of Health was petitioned for a communications dispatch framework as part of contract negotiations during Q4 2009.
- b) A new contract with MOHTLC regarding Ottawa Central Ambulance Communication Centre (OCACC) is in place. Technology and innovation were key components of the negotiations.
- c) The new contract does not commit to operator choice of triage methodologies however, there is language for consideration for Ottawa to be an evaluation site for new emerging dispatch technologies.
- d) A new contract is in place as of December 1, 2009.

*Management: % complete*

***100%***

**OAG's Follow-up Audit Findings regarding Recommendation 3**

The OAG confirms that the City petitioned the Province for enhanced control of the dispatch communications framework during Q4 2009 contract negotiations. The OAG confirms that language is included in the existing contract for consideration of new emerging dispatch technologies. However, it remains unclear to the OAG whether such language represents an opportunity for introducing the AMPDS triage tool as part of a "new technology" solution. The OAG acknowledges the reality that the intergovernmental advocacy strategy discussed under Recommendation 1 has been the City's preferred route to obtaining AMPDS - as opposed to the staff driven dispatch contract re-negotiations.

*OAG: % complete*

***100%***

**2008 Recommendation 4**

**That, once AMPDS is in place, the City pursue a centre of excellence designation to emulate best practices from across North America, including Niagara and Toronto.**

**2008 Management Response**

Management agrees with this recommendation.

Timelines and funding to pursue this designation are dependent upon negotiations with the Ministry of Health and Long Term Care.

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**Management Representation of the Status of Implementation of Recommendation 4 as of September 30, 2010**

There is no commitment from MOHTLC to approve implementation of AMPDS in OCACC. However, upon future approval for Ottawa to become an evaluation site, the City would pursue a centre of excellence designation.

*Management: % complete* *0%*

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**OAG's Follow-up Audit Findings regarding Recommendation 4**

0% complete but no management action currently required pending Provincial decision i.e., AMPDS.

The OAG concurs with management's explanation that implementation of this audit recommendation requires prior Provincial approval to replace the current DCPI dispatch triage tool with AMPDS. Recommendations 1 and 3 must first be successfully executed before progress on Recommendation 4 is possible.

*OAG: % complete* *0%*

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**Management Representation of the Status of Implementation of Recommendation 4 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

Implementation of this recommendation is dependent upon action by the MOHLTC. As the City does not have the authority to implement this recommendation, management considers implementation of this recommendation to be complete.

*Management: % complete* *100%*

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**2008 Recommendation 5**

That the Ottawa Paramedic Service continue to participate on the provincial task force working on hospital wait times and off-load delays.

**2008 Management Response**

Management agrees with this recommendation.

The branch will continue to be an active participant on the provincial task force working on reducing hospital wait times and off-load delays.

**Management Representation of the Status of Implementation of Recommendation 5 as of September 30, 2010**

See Management Response above. Of note, the task force has completed its mandate.

*Management: % complete* *100%*

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**OAG's Follow-up Audit Findings regarding Recommendation 5**

The OAG confirms Paramedic Service's robust participation in the Provincial Task Force and involvement/monitoring of the hospital based Off-load Nurse programming funded by the Province. Paramedic Service reporting to Committee has noted the limited/minor impact the Provincial efforts to date in reducing offload wait times in Ottawa. Paramedic Service reporting has also highlighted the absence of guaranteed long-term Provincial funding for the Off-load Nurse programming envelope.

*OAG: % complete*

*100%*

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**2008 Recommendation 6**

That the measurement of patient offload delays be refined to include a "patient transfer to emergency triage nurse" time log in order to correct for potential overestimation of offload duration.

**2008 Management Response**

Management agrees with this recommendation.

Currently the data is captured in the hospital's Emergency Department Reporting Systems (EDRS). The proposed new provincial Ambulance Call Report will include a "transfer of care" time, which will support this recommendation.

**Management Representation of the Status of Implementation of Recommendation 6 as of September 30, 2010**

The City is awaiting an MOHTLC announcement regarding new documentation standards. Anticipated implementation is Q2 2011.

*Management: % complete*

*0%*

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**OAG's Follow-up Audit Findings regarding Recommendation 6**

The OAG concurs with management's anticipated timelines for Provincial release of a new patient transfer documentation framework. This framework is expected to include a definitive patient transfer time point that will enable precise patient offload delay calculations (mutually accepted by the EMS community, the hospitals and the Province). Full recommendation completion simply requires Paramedic Service reporting of the MOHTLC announcement.

*OAG: % complete*

*0%*

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**Management Representation of the Status of Implementation of Recommendation 6 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

The new provincial Ambulance Call Report with the "transfer of care" time is still anticipated in Q2 2011.

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*Management: % complete*

*0%*

### **2008 Recommendation 7**

That the Ottawa Paramedic Service annually report to Council regarding the financial impact of lost ambulance unit hours due to hospital off-load delays.

### **Management Response**

Management agrees with this recommendation.

Management will report to Council annually on the financial impact of lost ambulance hours due to hospital off-load delays commencing in 2010.

### **Management Representation of the Status of Implementation of Recommendation 7 as of September 30, 2010**

The number of paramedic unit hours saved by off-load nurses was included in the 2008 Annual Report which was presented to CPS Committee on October 15, 2009. CPS Committee has directed that OPS bring forward a trends report annually.

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*Management: % complete*

*100%*

### **OAG's Follow-up Audit Findings regarding Recommendation 7**

The OAG has reviewed existing off-load delay reporting capabilities in Paramedic Service Annual Reports. The Audit team has documented the technical ability of Paramedic Service to calculate excess patient off-load effort using the dispatch T0-TMax scale. The issue is not technical reporting calculations; rather the frequency of reporting.

The 2010 annual reporting of 2009 performance data (including off-load delay) is still outstanding. Recognizing the logistical reporting difficulties during a municipal election year, the OAG believes two go-forward 2011 system performance reports should address both 2009 and 2010 data trends. The reports should address off-load delay unit hours lost, as well as lost unit hour costs. The reports should also address the standard portfolio of Paramedic Service performance reporting metrics found in past reports. These performance reports should be submitted no later than the end of Q2 2011 - Paramedic Service management have indicated this timing will be achieved via two distinct performance reports addressing 2009 and 2010 performance trends and metrics.

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*OAG: % complete*

*80%*

### **Management Representation of Status of Implementation of Recommendation 7 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

The 2009 report was delayed for reasons noted and accepted by the AG. The 2009 Annual Report and 2010 Performance Trends Report (ACS2011-COS-EPS-0006) will be tabled with the Community and Protective Services Committee in Q1 2011.

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*Management: % complete*

*80%*

### **2008 Recommendation 8**

That the Ottawa Paramedic Service include the calculation of time on task when considering paramedic staffing enhancements.

### **2008 Management Response**

Management agrees with this recommendation.

### **Management Representation of the Status of Implementation of Recommendation 8 as of September 30, 2010**

The calculation of time on task when considering paramedic staffing enhancements has been included in simulations completed by CAE Professional Services as part of the three-year Staffing Plan (2009-2011), however recommended staff enhancements are based on annual call volume growth only, and do not include current off-load delays greater than 30 minutes. The provincial benchmark for AOL (ambulance off-load) is 30 minutes at the 90th percentile. AOL times in Ottawa exceed this standard.

The 2008 Trends Report to CPS Committee ACS2008-CPS-OPS-0003 indicated: "Given that hospital wait times are not the responsibility of the City of Ottawa, the property tax base should not be used to fund the gap attributable to hospital wait times. The provincial government has acknowledged their responsibility in managing hospital wait times."

This practice will continue through the annual Trends Report related to the three-year Staffing Plan, and has also been incorporated into the scope of the Ottawa Paramedic Service Master Plan.

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*Management: % complete*

*100%*

### **OAG's Follow-up Audit Findings regarding Recommendation 8**

The OAG notes that the 2011-2020 Master Plan's detailed financial and resource requirement modelling (i.e., time on task) does NOT make adjustments for patient off-load times that exceed the 30 minute provincial benchmark. Future staffing and unit hour enhancements based on Master Plan simulations of required Paramedic Service demand (i.e., for growth and aging population) will therefore incorporate the impacts of off-load delay. To do otherwise will result in unacceptable future erosion of system response times to Code 4 emergency calls, and continued high-risk unit availability problems (i.e., frequent "zero units available" risk events).

Full implementation of this recommendation will occur once Council approves the Master Plan.

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*OAG: % Complete*

*90%*

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**Management Representation of Status of Implementation of Recommendation 8 as of Winter 2011**

Management disagrees with the OAG's follow-up audit finding that implementation of this recommendation is only substantially complete.

The Ottawa Paramedic Service Master Plan 2011-2020 is scheduled to be tabled with the Community and Protective Services Committee in Q2 2011. The Master Plan includes resource requirements based on time on task. The approaches should not be harmonized because offload resourcing is attributed to hospital wait times, which is not the City of Ottawa's area of responsibility. The Province has acknowledged that they hold responsibility for managing hospital wait times.

Management considers implementation of this recommendation to be complete.

*Management: % complete* **100%**

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**2008 Recommendation 9**

**That the Ottawa Paramedic Service conduct a quality improvement pilot project around the current hospital patient transfer process.**

**2008 Management Response**

Management agrees with this recommendation.

The Offload Nurse Project, which reorganizes the current hospital patient transfer process, was initiated on September 29, 2008 – by contractual agreement with the Ottawa Hospital and the Ottawa Paramedic Service. The project is completely funded by the Ministry of Health and Long Term Care. (See Paramedic Hospital Wait Time Report ACS2008-CPS-OPS-0004 received by CPS Committee at its meeting of October 16, 2008.) The Ottawa Paramedic Service will provide a one-year update on the impact of this project to Committee and Council in Q4 2009.

**Management Representation of the Status of Implementation of Recommendation 9 as of September 30, 2010**

As noted in the Management Response, OPS provided a one-year update to Community and Protective Services Committee and Council in October 2009 – see report ACS2009-COS-EPS-0059, entitled: 'OTTAWA PARAMEDIC SERVICE -- 2008 Annual Report and 2009 Performance Trends Report'.

In addition, the OLN project was expanded to include the Montfort Hospital and the Queensway Carleton Hospital. OLN contracts were renegotiated for the period April 1, 2009 – March 31, 2010. OLN hours were reduced at all hospitals based on the MOHTLC funding envelope.

*Management: % complete* **100%**

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**OAG's Follow-up Audit Findings regarding Recommendation 9**

The OAG confirms the accuracy of management's description and comments concerning the Province's Off-load Nurse Program. Paramedic Service reporting in October 2009 has been reviewed. The OAG shares management's assessment that the measurable impact of the OLN project has been positive, but relatively minor. The OAG also confirms the province-wide reduction in OLN budgets for the 2009-2010 fiscal year. The OLN project, in and of itself, will not materially resolve the systemic patient flow problems in the Ottawa hospital system. Therefore, while the audit recommendation requirements have been met, the fundamental problem of off-load delays remains unresolved.

*OAG: % complete* **100%**

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**2008 Recommendation 10**

That the Ottawa Paramedic Service bring forward a long-term master plan and budget for additional staffing and resources required to service growth.

**2008 Management Response**

Management agrees with this recommendation.

An external consultant will be engaged to develop a long-term master plan and budget for additional staffing and resources required to service growth. Ottawa Paramedic Service has already initiated this process (see Paramedic Trends Report ACS2008-CPS-OPS-0003 received by CPS Committee at its meeting of October 16, 2008), which includes a three-year staffing plan to be incorporated into the branch's 2009, 2010 and 2011 budgets.

**Management Representation of the Status of Implementation of Recommendation 10 as of September 30, 2010**

The Ottawa Paramedic Service Master Plan 2011-2020 has been completed and will be presented to the new City Council in early 2011.

*Management: % complete* **90%**

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**OAG's Follow-up Audit Findings regarding Recommendation 10**

The OAG confirms the completion of the 2011-2020 Paramedic Service Master Plan. The OAG further confirms that the completed 2011-2020 Master Plan forecasts the annual required Paramedic Service resources to address population growth and aging society impacts on the public's demand for emergency medical services. The submission of the completed 2011-2020 Master Plan by the Paramedic Service to City management for subsequent Committee/Council consideration is the remaining requirement for full implementation of this recommendation.

*OAG: % complete* **90%**

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### **Management Representation of Status of Implementation of Recommendation 10 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

The Ottawa Paramedic Service Master Plan 2011-2020 is scheduled to be tabled with the Community and Protective Services Committee in Q2 2011.

*Management: % complete* **90%**

### **2008 Recommendation 11**

**That the Ottawa Paramedic Service revisit the master plan bi-annually to ensure developing and unforeseen challenges and pressures are considered and updated in the plan and reported to Council.**

### **2008 Management Response**

Management agrees with this recommendation.

As indicated in recommendation 10, work is already underway in this area. The Ottawa Paramedic Service reports annually to Committee and Council with its "Paramedic Trends" report that outlines results for the first six months of each year including, outlining any challenges and pressures that should be reflected in the upcoming year's budget.

### **Management Representation of the Status of Implementation of Recommendation 11 as of September 30, 2010**

Implementation of this recommendation is pending approval of the Ottawa Paramedic Service Master Plan 2011-2020, which has been completed and will be presented to the new City Council in early 2011.

*Management: % complete* **0%**

### **OAG's Follow-up Audit Findings regarding Recommendation 11**

0% complete but no action possible prior to Q1 2013.

The OAG concurs with management's comments, and the predicted Q1 2011 timing of Master Plan submission to City management for subsequent Committee/Council consideration. The initial bi-annual Master Plan review should be slated for Q1 2013 assuming the Q1 2011 submission of the Master Plan proceeds as scheduled. The OAG agrees that quarterly and annual performance reporting will provide a helpful "bridge" to the first bi-annual Master Plan update in 2013.

*OAG: % complete* **0%**

### **Management Representation of the Status of Implementation of Recommendation 11 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

Management will report back to Council with respect to any developing or unforeseen challenges and pressures and will include the status of such things in the annual and paramedic trend reports. Implementation of this recommendation will be completed subsequent to the endorsement of the Master Plan, which is scheduled to be tabled with the Community and Protective Services Committee in Q2 2011. Management estimates that the first opportunity to report will be in the 2012 annual report (to be submitted in Q1 2013).

*Management: % complete*

*0%*

### **2008 Recommendation 12**

**That the Ottawa Paramedic Service develop a resource plan that separates annual growth from other determinants for resourcing and staffing enhancements.**

### **2008 Management Response**

Management agrees with this recommendation and has already implemented it.

The annual Paramedic Trends report separates growth (i.e., call volume pressures) from other factors such as hospital wait times, so that Council can readily identify the different factors affecting overall response to help isolate the resourcing requirements, which fall within the City's jurisdiction.

### **Management Representation of the Status of Implementation of Recommendation 12 as of September 30, 2010**

See Management Response above.

Supporting Documentation includes the Paramedic 2008 Trends Report ACS2008-CPS-OPS-0003 received by CPS Committee at its meeting of October 16, 2008, the 2008 Annual Report/2009 Trends report presented to CPS Committee October 15, 2009.

This was incorporated into the scope of the Ottawa Paramedic Service Master Plan.

*Management: % complete*

*100%*

### **OAG's Follow-up Audit Findings regarding Recommendation 12**

The OAG concurs with management's assertion that the 2011-2020 Master Plan contains modelled ambulance demand forecasts and unit hour resource forecasts (i.e., service hours) that account for population growth, societal aging impacts, and patient off-load resource consumption. The Master Plan unit hour resource forecast can be found in Figures 12-13 in Chapter 1 or Figures 36-37 in Chapter 5. One of the key insights of the 2011-2020 Master Plan is the reality that demand for service is a function of BOTH population growth and the aging of the population (exponentially higher per capita service requests for senior citizens > 60 years of age). Resource requirements modelling in the Master Plan therefore has both a population based component and an aging society demographic component.

*OAG: % complete*

*100%*

**2008 Recommendation 13**

That the Ottawa Paramedic Service present in their annual reports the staffing approvals for the corresponding years.

**2008 Management Response**

Management agrees with this recommendation. This has been current practice since 2007.

**Management Representation of the Status of Implementation of Recommendation 13 as of September 30, 2010**

See Management Response above.

Supporting Documentation includes the Paramedic 2008 Trends Report ACS2008-CPS-OPS-0003 received by CPS Committee at its meeting of October 16, 2008, and the 2008 Annual Report/2009 Trends report presented to CPS Committee on October 15, 2009.

*Management: % complete* *100%*

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**OAG's Follow-up Audit Findings regarding Recommendation 13**

The OAG concurs with management's observation that the Paramedic Service's annual trends report has traditionally addressed staffing enhancements approved via the budget process - linking phased staffing adjustments to overall EMS system performance.

The OAG believes the core intent of this audit recommendation is to ensure that any potential Council/budget approved staffing discrepancies vis-à-vis the 2011 Master Plan's modelled staffing/resourcing requirements are annually reported (assuming the Master Plan is endorsed by Council). In this sense, the 2011-2020 Master Plan's focus on ensuring a regular, annual staffing/resource adjustment to stay ahead of the age-driven demand will be re-enforced. The trade-off between potential budget restraint staffing decisions and the Master Plan's public safety and service quality driven requirements will be clear and transparent.

The 2011 performance reports (i.e., 2009 and 2010 data) already recommended by the OAG represent a potential "dry run" attempt to link actual Council approved budget staffing/resource decisions to the requirements of the 2011-2020 Master Plan. The OAG notes management's first opportunity to provide the required reporting will be in Q1 2012.

*OAG: % complete* *100%*

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**Management Representation of Status of Implementation of Recommendation 13 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding that implementation of this recommendation is complete.

Management provides the staffing approvals for the corresponding years in its annual reporting. Any potential staffing discrepancies vis-à-vis the 2011 Master Plan's resourcing requirements are beyond the scope of the original recommendation.

Management considers implementation of this recommendation to be complete.

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*Management: % complete* *100%*

### **2008 Recommendation 14**

That the City obtain a legal opinion to assess the financial and liability risk associated with the ongoing daily erosion of the paramedic system to critical levels of unit availability (this action was taken in July 2008).

### **2008 Management Response**

Management agrees with this recommendation and completed this work in July 2008.

### **Management Representation of the Status of Implementation of Recommendation 14 as of September 30, 2010**

See Management Response above.

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*Management: % complete* *100%*

### **OAG's Follow-up Audit Findings regarding Recommendation 14**

The OAG confirms the existence of two distinct legal opinions obtained by the City to assess the financial and liability risk associated with the on-going daily erosion of the paramedic system to critical levels of unit availability (including erosion of 90<sup>th</sup> percentile response times).

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*OAG: % complete* *100%*

### **2008 Recommendation 15**

That the Auditor General inform the City Manager of the performance issues and risk profile associated with critical levels of resource availability in an interim briefing prior to the 2009 Annual Report (this action was taken in July 2008).

### **2008 Management Response**

Management agrees with this recommendation.

### **Management Representation of the Status of Implementation of Recommendation 15 as of September 30, 2010**

See Recommendation.

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*Management: % complete* *100%*

### **OAG's Follow-up Audit Findings regarding Recommendation 15**

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*OAG: % complete.* *100%*

**2008 Recommendation 16**

That the Chief of the Paramedic Service develop a contingency plan to address this critical unit availability shortfall on an immediate basis.

**2008 Management Response**

Management agrees with this recommendation. Operational processes are currently in place and will be put into a policy framework in 2010.

**Management Representation of the Status of Implementation of Recommendation 16 as of September 30, 2010**

A best practice review and Deployment Plan revision took place in 2010 to ensure consistency in thresholds for implementation of contingency measures to preserve unit availability.

*Management: % complete* *100%*

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**OAG's Follow-up Audit Findings regarding Recommendation 16**

The OAG has conducted a thorough review of the Paramedic Service's newly updated deployment plan. The deployment plan functions as a critical dispatch tool. The new Paramedic Service deployment plan allows for Code 3 emergency calls to be held in queue for up to 60 minutes when the service deployment level is below 7 available units City-wide. As well, Paramedic units at end of shift can continue to provide service (i.e., overtime funded) when the Paramedic system is functioning below critical levels of availability.

*OAG: % complete* *100%*

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**2008 Recommendation 17**

That the Chief of the Paramedic Service report quarterly to Council on the incidence of critical resource levels and their associated next call 90th percentile response times.

**2008 Management Response**

Management agrees with this recommendation.

The Ottawa Paramedic Service does not currently have the reporting technology necessary to implement this recommendation. The branch will solicit the Ministry of Health to assist with the acquisition of reporting technology to be able to report on critical resource levels.

**Management Representation of the Status of Implementation of Recommendation 17 as of September 30, 2010**

This recommendation requires resolution.

Management agrees that it would be ideal to report quarterly to Council on the incidence of critical resource levels and their associated next call 90th percentile response times however, reporting limitations will not allow implementation of this recommendation.

The Province has acknowledged the reporting limitations that exist within the Computer Aided Dispatch (CAD).

Of note, the ARIS Replacement Project: Evaluation of the SSM Plan CAD Module Pilot at Ottawa CACC v1.4 states:

Page 12: "...the current configuration of VisiCAD ARIS II does not include the ability to automatically trigger a notification...when certain SSM Levels are reached. Dispatch staff must manually initiate a message to be sent...but this notification is often delayed (as staff are busy) or gets forgotten. Ottawa CACC management recommend that automatic notification ...be addressed"

Page 13: "...VisiCAD does not contain any specific reports or reporting capability for SSM Plans or for reporting on deployment plan status or compliance. ..."

In a subsequent email from the ARIS 2 Project Manager, when asked to run a critical levels report for the City, responded: "...It was made clear when we implemented the pilot of SSM at Ottawa that what you saw was what you were getting in terms of functionality (or lack thereof) and although the lack of reporting capabilities was identified as an issue in the Pilot Review Report, we are not in a position to provide resources to fill that void."

*Management: % complete*

*0%*

### **OAG's Follow-up Audit Findings regarding Recommendation 17**

The OAG recognizes management has petitioned the Province to upgrade existing dispatch CAD technologies and systems to automate the reporting of critical resource availability shortages. The OAG further acknowledges the apparent unwillingness of the Province to provide updated reporting on this critical element of system performance and public safety risk.

The OAG believes this issue is of such critical importance, that manual documentation processes are justified to monitor and report on the frequency of critical unit availability shortfalls. Therefore the audit team is recommending a manual log system to record, at minimum, the frequency/time/date of "zero unit availability" by dispatch staff. As the contracted dispatch authority, the OAG is of the view that the Chief of the Paramedic Service has the authority to direct the dispatch staff/supervisors to compile the required log book information. This log book documented information can serve as the basis of simple frequency reporting to the Chief and to Committee/Council. Council can then utilize the "zero unit availability" frequency data when considering the annual implementation of 2011-2020 Master Plan modelled unit hour resource increases.

The log book approach to monitoring “zero units available” frequency of occurrence should be implemented no later than the end of Q1 2011. The implementation of a manual log book system will represent the best available degree of full compliance with this audit recommendation. Staff have indicated the log book approach can be implemented (and results reported) in 2011.

*OAG: % complete* *0%*

### **Management Representation of Status of Implementation of Recommendation 17 as of Winter 2011**

Management agrees with the proposed resolution, and with the OAG’s follow-up audit finding, however further progress has been made.

A dispatch “log book” that records the frequency of “zero unit availability” will be implemented on February, 1, 2011. The manual documentation process will be implemented until a technical solution is realized. The data regarding frequency/time/date of “zero unit availability” will be reported to the Chief and sent to Community and Protective Services Committee/Council as part of the 2011 Annual Report in Q1 2012.

Management considers implementation of this recommendation to be initiated.

*Management: % complete* *25%*

## **3.3 System Performance Verification and Review of Operational Processes and Practices**

### **2008 Recommendation 18**

That the Ottawa Paramedic Service establish annual response time performance targets based on actual percentages of emergency calls achieving 8:59 and 15:59 instead of the current 90th percentile targets.

### **2008 Management Response**

Management agrees with this recommendation.

Annual response time performance targets have been captured in the Paramedic Service 2007 Annual Report (received by CPS Committee at its meeting of August 21, 2008) and in the more recent 2008 Trends Report. This practice will continue in future annual and performance trend reports.

### **Management Representation of the Status of Implementation of Recommendation 18 as of September 30, 2010**

This recommendation has been operationalized within the OPS annual reports. In addition to the 2007 Annual Report, the 2008 Annual Report/2009 Trends report was presented to CPS Committee on October 15, 2009.

*Management: % complete* *100%*

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**OAG's Follow-up Audit Findings regarding Recommendation 18**

The OAG concurs with management that actual percentile rank response time reporting is already in place via the noted annual/trend reports.

The OAG has reviewed the new response time performance targets contained within the 2011-2020 Master Plan. Chapter 4 of the 2011-2020 Master Plan sets new response time performance targets based on actual percentile ranking of CTAS 1-2 and dispatched Code 4 emergency calls. The new 2011-2020 Master Plan targets calculate the actual percentile rank of response times using an 8 minute T2-T4 standard as per the new Provincial reporting regime. The 2011-2020 Master Plan's actual percentile rank response time targets are supplemented with additional response time targets - targets based on average response times and 90<sup>th</sup> percentile response times.

*OAG: % complete*

**100%**

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**Recommendation 19**

**That the Ottawa Paramedic Service track and annually report the identified complete portfolio of performance measures set out in this audit.**

**2008 Management Response**

Management agrees with this recommendation.

The Ottawa Paramedic Service will review the portfolio of performance measures set out in this audit for inclusion in future annual reports as part of the strategic branch review exercise in 2010.

**Management Representation of the Status of Implementation of Recommendation 19 as of September 30, 2010**

The portfolio of performance measures set out in the audit have been reviewed and will be considered for inclusion in future annual reports.

This has been incorporated into the scope of the Ottawa Paramedic Service Master Plan 2011-2020, which has been completed and will be presented to the new City Council in early 2011.

*Management: % complete*

**90%**

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**OAG's Follow-up Audit Findings regarding Recommendation 19**

The new CTAS based and dispatch Code 4 based response time targets set out in the 2011-2020 Master Plan will need to be incorporated into the portfolio of annually reported performance indicators. Actual versus target variances will need to be documented and explained. The recommended log book derived reporting of "zero available units" frequency data will need to be integrated into the reporting regime. The integration of all new Master Plan target based reporting requirements - including the recommended "zero available units" - should occur in time for Q1 2012 reporting of 2011 year-end results.

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*OAG: % complete**80%***Management Representation of Status of Implementation of Recommendation 19 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

The new CTAS and dispatch Code 4 response time targets will be incorporated into the annual performance indicators once the new response time targets are approved by Council. The 2012 Annual Report in Q1 2013 will be the first opportunity to report on these new response time targets.

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*Management: % complete**80%***Recommendation 20**

**That the Ottawa Paramedic Service include "scheduled unit counts versus actually deployed unit counts" performance data in its annual performance report to Committee/Council.**

**2008 Management Response**

Management agrees with this recommendation.

The Ottawa Paramedic Service will review the portfolio of performance measures set out in this audit for inclusion in future annual reports as part of the strategic branch review exercise in 2010.

**Management Representation of the Status of Implementation of Recommendation 20 as of September 30, 2010**

The scheduled unit counts versus actual deployed unit counts performance data has been reviewed and will be considered for inclusion in future annual reports.

This has been incorporated into the scope of the Ottawa Paramedic Service Master Plan 2011-2020, which has been completed and will be presented to the new City Council in early 2011.

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*Management: % complete**90%***OAG's Follow-up Audit Findings regarding Recommendation 20**

The 2011-2020 Paramedic Service Master Plan does not address the operational performance issue of "scheduled unit counts versus actually deployed unit counts".

Paramedic Service does monitor "scheduled Paramedic unit counts versus actually deployed unit counts" as a component of its ongoing Branch level portfolio of performance indicators. A set "permissive range" of staffing levels acts as a targeted threshold to guarantee actual levels of deployed units. The upcoming 2009 and 2010 performance reports being prepared by staff represent the appropriate opportunity to report to Committee/Council during Q1-Q2 2011 - an event that will trigger 100% completion of this audit recommendation

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*OAG: % complete* *90%*

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**Management Representation of Status of Implementation of Recommendation 20 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

The 2009 Annual Report and 2010 Performance Trends Report (ACS2011-COS-EPS-0006) will be tabled with the Community and Protective Services Committee in Q1 2011.

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*Management: % complete* *90%*

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**Recommendation 21**

That the Ottawa Paramedic Service establish ongoing performance targets in its operational planning using "scheduled unit counts versus actually deployed unit counts".

**2008 Management Response**

Management agrees with this recommendation.

The Ottawa Paramedic Service will review the portfolio of performance measures set out in this audit for inclusion in future annual reports as part of the strategic branch review exercise in 2010.

**Management Representation of the Status of Implementation of Recommendation 21 as of September 30, 2010**

This has been incorporated into the scope of the Ottawa Paramedic Service Master Plan 2011-2020, which has been completed and will be presented to the new City Council in early 2011.

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*Management: % complete* *90%*

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**OAG's Follow-up Audit Findings regarding Recommendation 21**

The OAG confirms that the Paramedic Service currently monitors "scheduled Paramedic unit counts versus actually deployed unit counts" as a component of its ongoing Branch level portfolio of performance indicators. A set "permissive range" of staffing levels acts as a targeted threshold to guarantee actual levels of deployed units. This data populates an ongoing Operations Daily Report used to plan unit deployment.

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*OAG: % complete* *100%*

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**Recommendation 22**

That the Ottawa Paramedic Service establish a target range for its key productivity ratio in the high-density system (calls per paramedic).

**2008 Management Response**

Management agrees with this recommendation.

Calls per paramedic ratios will be discussed as part of the strategic branch review exercise in 2010 and will also be included in the scope of work being done by the consultant in developing a long-term master plan and budget as indicated in recommendation 10.

### **Management Representation of the Status of Implementation of Recommendation 22 as of September 30, 2010**

The Ottawa Paramedic Service Master Plan 2011-2020 has been completed and will be presented to the new City Council in early 2011.

*Management: % complete* **90%**

### **OAG's Follow-up Audit Findings regarding Recommendation 22**

The 2011-2020 Master Plan's recommended required resources scenario envisions reduced unit hour utilization (UHU) from 37% in 2011 to 30% in 2020. This forecast reduction in annual UHU represents a de-facto reduction in the ratio of calls per paramedic. This reduction is achieved by adding paramedic service hours annually through the Master Plan timeframe. The result is a reduced level of "system business" below the current overloaded levels. The decrease in system business will result in stabilized response times and a potential reduction in the frequency of "zero available unit" resource shortfalls.

*OAG: % complete* **100%**

### **Recommendation 23**

That the "calls per paramedic ratio" trend in Ottawa (and external peer ratios) be regularly reported and integrated into the recommended master planning framework and the upcoming branch strategic branch review.

### **2008 Management Response**

Management agrees with this recommendation.

Calls per paramedic ratios and external peer ratios will be discussed as part of the strategic branch review exercise in 2010 and will also be included in the scope of work being done by the consultant in developing a long-term master plan and budget as indicated in recommendation 10.

### **Management Representation of the Status of Implementation of Recommendation 23 as of September 30, 2010**

The Ottawa Paramedic Service Master Plan 2011-2020 has been completed and will be presented to the new City Council in early 2011.

*Management: % complete* **90%**

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**OAG's Follow-up Audit Findings regarding Recommendation 23**

See commentary for Recommendation 22 above.

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*OAG: % complete* *100%*

**Recommendation 24**

That the City of Ottawa petition OMBI to restructure its 90th percentile response time reporting to include T0-T2 data.

**2008 Management Response**

Management agrees with this recommendation and has already implemented it. The City of Ottawa petitioned OMBI in 2008 to restructure its 90th percentile response time reporting to include T0-T2 data. OMBI has implemented and reported this in its annual report.

**Management Representation of the Status of Implementation of Recommendation 24 as of September 30, 2010**

See Management Response above.

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*Management: % complete* *100%*

**OAG's Follow-up Audit Findings regarding Recommendation 24**

The OAG has reviewed the OMBI reporting protocols concerning the inclusion of the T0-T2 dispatch component of overall response time reporting, and concurs with management on this recommendation.

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*OAG: % complete* *100%*

**Recommendation 25**

That the Ottawa Paramedic Service conduct an Advanced Care Paramedic (ACP) needs analysis.

**2008 Management Response**

Management agrees with this recommendation. An ACP needs analysis will be conducted as part of work being undertaken on the Paramedic Master Plan in 2010.

**Management Representation of the Status of Implementation of Recommendation 25 as of September 30, 2010**

The Ottawa Paramedic Service Master Plan 2011-2020 has been completed and will be presented to the new City Council in early 2011.

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*Management: % complete* *90%*

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**OAG's Follow-up Audit Findings regarding Recommendation 25**

The 2011-2020 Paramedic Service Master Plan does not include an ACP needs analysis. A distinct needs analysis project will need to be designed and executed by the Paramedic Service during 2011 in order to trigger 100% compliance with this audit recommendation.

*OAG: % complete* *0%*

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**Management Representation of Status of Implementation of Recommendation 25 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding, however further progress has been made.

Management agrees that the ACP needs analysis was not in the scope of the 2011-2020 Paramedic Service Master Plan. As a result, management has included the ACP needs analysis as a project under the Branch's 2011 operational work-plan. The project is scheduled for completion by the end of Q4 2011.

Management considers implementation of this recommendation to be initiated.

*Management: % complete* *25%*

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**Recommendation 26**

**That the Ottawa Paramedic Service refine and develop annual ACP capture targets based on patient transports as part of the annual business planning and reporting cycle.**

**2008 Management Response**

Management agrees with this recommendation.

The Ottawa Paramedic Service will refine and develop annual ACP capture targets for inclusion in future annual reports as part of the strategic branch review exercise in 2010.

**Management Representation of the Status of Implementation of Recommendation 26 as of September 30, 2010**

This has been incorporated into the scope of the Ottawa Paramedic Service Master Plan 2011-2020, which has been completed and will be presented to the new City Council in early 2011.

*Management: % complete* *90%*

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**OAG's Follow-up Audit Findings regarding Recommendation 26**

The performance targets set out in the 2011-2020 Master Plan focus on average response times and actual percentile response times. The Master Plan does not set ACP capture targets. Detailed ACP capture targets can be integrated into a distinct ACP capture analysis project during 2011.

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OAG: 0% complete

0%

**Management Representation of Status of Implementation of Recommendation 26 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding, however further progress has been made.

Management agrees that the ACP needs analysis was not in the scope of the 2011-2020 Paramedic Service Master Plan. As a result, management has included the ACP needs analysis as a project under the Branch's 2011 operational work-plan. The ACP needs analysis project will also include ACP capture targets and as noted in Recommendation 25, the project is scheduled for completion by the end of Q4 2011.

Management considers implementation of this recommendation to be initiated.

*Management: % complete*

25%

**Recommendation 27**

**That the Ottawa Paramedic Service develop a deployment policy that would see ACP resources responding only to Code 4 calls, similar to their policy for Paramedic Rapid Response (PRU) response priorities.**

**2008 Management Response**

Management disagrees with this recommendation.

Present staffing precludes this recommendation from being implemented at this time. A change in legislation and the acquisition of a better dispatching tool (AMPDS) would be required for the branch to support and implement this recommendation.

Current legislation requires that the closest ambulance be sent to any life-threatening call; therefore, the choice of an ACP resource being sent versus a PCP resource could not be accomplished without legislative change. With the acquisition of AMPDS and appropriate resourcing, the principle could be applied by sending a second unit with ACP after the closest unit is sent. Operationally, the first unit would then clear and be available for another call. This cannot be accomplished in a service that is always at critical levels of availability.

**Management Representation of the Status of Implementation of Recommendation 27 as of September 30, 2010**

This recommendation requires resolution further to the management response above.

*Management: % complete*

0%

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**OAG's Follow-up Audit Findings regarding Recommendation 27**

The OAG recognizes the legislative obstacles preventing ACP resources from being focussed only on Code 4 calls. The OAG recommends that ACP capture deployment strategies, target setting, and performance reporting issues be dealt with as part of the target setting project referenced in OAG comments under Recommendation 26.

*OAG: % complete* *0%*

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**Management Representation of Status of Implementation of Recommendation 27 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

Management agrees that the ACP needs analysis project will include ACP capture deployment strategies, target setting, and performance reporting issues. Management has included the ACP needs analysis as a project under the Branch's 2011 operational work-plan. The project is scheduled for completion by the end of Q4 2011.

Management considers implementation of this recommendation to be initiated.

*Management: % complete* *25%*

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**Recommendation 28**

**That the Ottawa Paramedic Service track and annually report utilization, response times and other relevant performance data for all specialty teams.**

**2008 Management Response**

Management agrees with this recommendation.

The Ottawa Paramedic Service will review the portfolio of performance measures set out in this audit for inclusion in future annual reports as part of the strategic branch review exercise in 2010.

**Management Representation of the Status of Implementation of Recommendation 28 as of September 30, 2010**

Utilization, response times, and other relevant performance data for all specialty teams has been reviewed and considered for inclusion in future annual reports, and will be incorporated into monthly branch Key Performance Indicator (KPI) reviews.

*Management: % complete* *100%*

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**OAG's Follow-up Audit Findings regarding Recommendation 28**

The OAG has reviewed monthly Branch performance review documentation and confirms management's inclusion of Specialty Team performance data in its monthly review process.

*OAG: % complete* *100%*

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**Recommendation 29**

That the Ottawa Paramedic Service expand the PRU program based on the findings of the 2005-2007 program analysis.

**2008 Management Response**

Management agrees with this recommendation. Enhancements to the PRU program began in May 2008 and analysis is ongoing.

**Management Representation of the Status of Implementation of Recommendation 29 as of September 30, 2010**

The PRU program has been expanded from five to ten units as of September 2009, and an additional five units in December 2009. Deployment is prioritized based on ward call volumes. Based on performance evaluations, further expansions or adjustments will take place as required.

*Management: % complete* 100%

**OAG's Follow-up Audit Findings regarding Recommendation 29**

The OAG confirms management's 2009 decision to expand the PRU program based on Ward boundaries. As of January 2011, the Paramedic Service has reconfigured its PRU deployment model based on post locations. This two-stage PRU expansion meets the complete requirements of the audit recommendation.

*OAG: % complete* 100%

**Recommendation 30**

That the Ottawa Paramedic Service prepare a business case demonstrating the return on investment (ROI) and expected utilization associated with planned facility/base construction in the City capital plan.

**2008 Management Response**

Management agrees with this recommendation.

An external consultant will be engaged to develop a long-term master plan for the Ottawa Paramedic Service and the scope of work will also include the preparation of a business case demonstrating ROI. This work is expected to be complete in 2010.

**Management Representation of the Status of Implementation of Recommendation 30 as of September 30, 2010**

The Ottawa Paramedic Service Master Plan 2011-2020 has been completed and will be presented to the new City Council in early 2011.

*Management: % complete* 90%

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**OAG's Follow-up Audit Findings regarding Recommendation 30**

The 2011-2020 Paramedic Master Plan includes a ten-year capital forecast that sets out future land ambulance base requirements, preferred locations and estimated costs. The Master Plan also provides a high-level rationale and ROI for new base construction. However, the OAG believes a detailed business case is required to document the ROI for each proposed base in the capital forecast. As well, a detailed business case is required for the proposed west-end single start location. This business case should be prepared and presented to Committee/Council by the end of 2011.

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*OAG: % complete* *25%*

**Management Representation of Status of Implementation of Recommendation 30 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

Management agrees that a detailed business case is required to document the ROI for capital investments set out in the 2011-2020 Paramedic Master Plan. The business case has been included in the Branch's 2011 operational work-plan and will be presented to Committee and Council before the end of Q1 2012.

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*Management: % complete* *25%*

**Recommendation 31**

**That the Ottawa Paramedic Service collaborate with public health and other stakeholders to research and develop a service demand-forecasting model that incorporates aging society impacts on call frequency, duration and acuity.**

**2008 Management Response**

Management agrees with this recommendation.

An external consultant will be engaged to develop a long-term master plan for the Ottawa Paramedic Service and the scope of work will also include the research and development of a forecasting model that incorporates the impact of an aging society on call frequency, duration and acuity. This work is expected to be complete in 2010.

**Management Representation of the Status of Implementation of Recommendation 31 as of September 31, 2010**

The Ottawa Paramedic Service Master Plan 2011-2020 has been completed and will be presented to the new City Council in early 2011.

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*Management: % complete* *100%*

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**OAG's Follow-up Audit Findings regarding Recommendation 31**

The 2011-2020 Master Plan incorporates existing patient age data (i.e., age cohorts) and Official Plan sanctioned population forecasts to create a “requests for service” demand profile for each year of the planning horizon. Paramedic unit responses to the demand profile have been forecast to address age specific service demand pressures across each year of the 2011-2020 Master Plan. Figures 23, 24, 25 and 27 in Chapter 3 of the Master Plan are instructive in terms of service demand forecasting based on age specific levels of demand.

*OAG: % complete*

*100%*

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**Recommendation 32**

**That the annual paramedic growth staffing enhancements include proportional adjustments in support services staffing.**

**2008 Management Response**

Management agrees with this recommendation.

The Ottawa Paramedic Service presently undertakes to include proportional adjustments in support service staffing when front-line paramedics are hired and will continue to review such staffing enhancements in future. Improvements to growth staffing enhancements will be reviewed as part of the strategic branch review exercise in 2010.

**Management Representation of the Status of Implementation of Recommendation 32 as of September 30, 2010**

This has been incorporated into the scope of the Ottawa Paramedic Service Master Plan 2011-2020 has been completed and will be presented to the new City Council in early 2011.

*Management: % complete*

*90%*

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**OAG's Follow-up Audit Findings regarding Recommendation 32**

The 2011-2020 Master Plan models required service units (hours) required in each year of the planning horizon. The 2009 base year for this modelling includes the entire Paramedic Service operating budget and total staff hours. Therefore the projected staff hours include both frontline vehicle hours and support hours. The actual proportion of frontline vehicle hours and support hours (within the overall envelope of required resources) is subject to annual refinement as the Plan is operationalized. Support resources have been included in the base of the 10 year required resources forecast (see Chapter 5 required resource forecasts – base and recommended scenarios).

*OAG: % complete*

*100%*

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**Recommendation 33**

**That the Ottawa Paramedic Service provide an annual system planning resourcing business case (i.e., reflecting the modeled required resource capacity) as part of the annual City budget process.**

**2008 Management Response**

Management agrees with this recommendation.

An external consultant will be engaged to develop a long-term master plan and budget for the Ottawa Paramedic Service. The scope of work will also include the development of an annual system planning resource business case. Ottawa Paramedic Service has already initiated some of this work (as indicated previously - see Paramedic Trends report), which includes a three-year staffing plan to be incorporated into the branch's 2009, 2010 and 2011 budgets.

**Management Representation of the Status of Implementation of Recommendation 33 as of September 30, 2010**

The Ottawa Paramedic Service Master Plan 2011-2020 has been completed and will be presented to the new City Council in early 2011.

*Management: % complete* *90%*

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**OAG's Follow-up Audit Findings regarding Recommendation 33**

The OAG has reviewed the 2011-2020 Master Plan required resources forecasting in Chapter 5, and has determined that the annual increase in modelled service hours, subsequently costed in 2009 non-inflated dollars, constitutes an appropriate annual business plan input into the City budget process.

Figure 37 in Chapter 5 contains the required business plan input data for each year of the ten year planning horizon.

*OAG: % complete* *100%*

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**Recommendation 34**

**That quarterly and annual financial reporting integrate expenditure data with actual deployed units of service for the same period.**

**2008 Management Response**

Management agrees with this recommendation.

The Ottawa Paramedic Service will review the integration of expenditure data with actual deployed units of service in quarterly and annual financial reporting as part of the strategic branch review exercise in 2010.

### **Management Representation of the Status of Implementation of Recommendation 34 as of September 30, 2010**

Action has been initiated with the FSU to trial reports of actual vs. budgeted unit hours for 2009. OPS will evaluate the usefulness of the data compared with the level of effort to produce reports. Revised estimated date of completion is Q4 2010.

*Management: % complete* 25%

### **OAG's Follow-up Audit Findings regarding Recommendation 34**

The 2011-2020 Master Plan incorporates planned expenditure requirements with UHU targets and stable response time targets. The OAG concurs with management that actual expenditure reporting has yet to be reconciled with the "on the ground" delivery of resources consistent with Master Plan requirements. This can be accomplished at the end of 2011 or early 2012, when the first year of the Master Plan may have been operationalized.

*OAG: % complete* 25%

### **Management Representation of Status of Implementation of Recommendation 34 as of Winter 2011**

Management agrees with the OAG's follow-up audit finding.

Management agrees to coordinate with the FSU to include the integration of expenditure data with actual deployed units of service in annual financial reporting, once the first year of the Master Plan has been operationalized. The first opportunity to report will be in the 2012 trends report, to be presented to Committee and Council before the end of Q1 2013.

*Management: % complete* 25%

## **4 SUMMARY OF THE LEVEL OF COMPLETION**

1. The table below outlines our assessment of the level of completion of each recommendation as of December 31, 2010:

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	4, 6, 11, 17, 25, 26	6	18%
ACTION INITIATED	25 – 49	30, 34	2	6%
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	2, 7, 8, 10, 19, 20	6	18%
COMPLETE	100	1, 3, 5, 9, 12, 13, 14, 15, 16, 18, 21, 22, 23, 24, 27, 28, 29, 31, 32, 33	20	58%
TOTAL			34	100%

2. The table below outlines management's assessment of the level of completion of each recommendation as of Winter 2011 in response to the OAG's assessment. These assessments have not been audited.

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	6, 11	2	5%
ACTION INITIATED	25 – 49	17, 25, 26, 27, 30, 34	6	18%
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	1, 2, 7, 10, 19, 20, 21, 22, 23, 32, 33	11	33%
COMPLETE	100	3, 4, 5, 8, 9, 12, 13, 14, 15, 16, 18, 24, 28, 29, 31	15	44%
TOTAL			34	100%

## 5 CONCLUSION

Management has made significant progress in completing or rigorously addressing three quarters of outstanding recommendations associated with the original 2008 Audit of Paramedic Service. A number of “no action” recommendations cannot yet be acted upon by the Paramedic Service or management for valid timing reasons – these “no action” assessments by the OAG do not represent a lack of commitment on the part of the Paramedic Service or management.

Of particular note from an audit follow-up perspective is the pivotal role played by the recently completed Paramedic Service 2011-2020 Master Plan. The 2011-2020 Master Plan has comprehensively addressed/resolved a wide range of complex system planning, operational and performance measurement/reporting challenges originally raised in the 2008 Audit of Paramedic Services. The remaining outstanding 2008 audit recommendations should be addressed by a series of issue-specific special projects and reports to be executed/conducted in 2011. Management compliance with almost all outstanding 2008 audit recommendations (i.e., 95% compliance rate) should be achieved no later than end of Q1 2012.

## 6 ACKNOWLEDGEMENT

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.