



Office of the Auditor General

AUDIT OF SURFACE OPERATIONS

2006 Report

Chapter 1

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EXECUTIVE SUMMARY

The Audit of the City of Ottawa's Surface Operations was included in the City Auditor General's 2006 Audit Plan, which was presented to Council on December 15, 2004.

The City has jurisdiction and manages 5,500 km of roads, 37 km of transitway, 1,500 km of sidewalks and pathways, 675 sports fields/ball diamonds, 200,000 trees within the City's right-of-way and 890 parks. The primary role of the Surface Operations Branch (SOP) is to carry out the maintenance, operations and stewardship of these assets. Other operating groups have been charged with the responsibility to maintain vehicles, equipment and facility assets related to SOP. In 2006, Surface Operations Branch had 824 full-time equivalents (FTEs).

The Surface Operations Branch has experienced significant changes, challenges and issues since amalgamation. High turnover, labour tension, different cultures, reporting hierarchies, organizational structures and ways of performing tasks, a lack of planning on a daily, monthly and annual basis, insufficient coordination between capital and operating budgets, a lack of financial information down to middle management and supervisory levels and budgets which have lacked scrutiny have all led to a less than effective organization.

In the past five years, the Surface Operations Branch actual gross expenditures have grown by almost 20% from \$95 million in 2002 to \$113 million budgeted in 2006. This is equivalent to an average annual increase of almost 5% per year. These increases occurred, post-amalgamation, at a time when significant change management was occurring to establish a new City-wide standard for the care of roads, sidewalks, parks and urban and rural municipal forests. More detailed review reveals that increases were allocated to Winter Services, \$12 million; to Parks and Sports Fields, \$9 million; to Forestry, \$3 million; while reductions occurred in both the Director's Office and Summer Services of approximately \$3 million each.

Audit Scope

The scope of this audit was to conduct a thorough review of all aspects of the City of Ottawa's Surface Operations Branch including Road Maintenance, Parks and Sport Field Maintenance, and Forestry Services with the exception of Winter Services for road and sidewalk maintenance. Winter Services were not initially within the scope of this audit, however as the audit proceeded, some observations related to winter operations were documented and included in this report.

Audit Objectives

The objective of the audit included an examination of the Branch to assess whether the objectives, which have been set for the Branch, are being achieved. Four areas were identified, specifically:

1. **Compliance** – to determine if the Branch conforms to all laws and regulations that govern its operations, including all relevant legislation and spending authorities contained in the annual budget as well as City and Provincial minimum maintenance standards.
2. **Financial Management** – to examine the financial results of operations against short and long-term plans and determine the reliability of financial systems.
3. **Planning** – to examine management practices across the Branch to assess the impact of planning (daily, monthly, annual, long-term, integration with capital projects) on the economy, efficiency and effectiveness of current operations.
4. **Performance (value-for-money)** – to examine management practices, goals and objectives, controls and monitoring and reporting systems across the Branch to assess the economy, efficiency and effectiveness of current operations.

There are three basic tenets for maintenance and asset management associated with all the activities carried out by Branch staff. These form the foundation of this audit and are linked to each of the report recommendations. They include:

- Preservation of capital assets belonging to the community;
- Safety of the community when using municipal properties; and
- Quality of life.

Many of our observations are interrelated, with a wide range of results. The table below reflects these interdependencies.

We believe that all recommendations contained in this report can be implemented without the requirement for additional funds. However, this will require prompt staffing of existing and recently approved positions in the newly formed Operations Planning Unit, Operations Research Units of Technical Support Services Division as well as the strategic redeployment of existing resources, both dollars and persons.

Despite our observations of the current state of affairs within the Branch, there are signs that the situation may be improving with new management and the Strategic Alignment Initiative (SAI). However, we are concerned that the priorities and timelines established by the Branch do not place sufficient emphasis on promptly getting its financial house in order.

To date the SAI has focused largely on boundary realignment and human resource issues with little attention to implementing adequate controls over the \$113 million budgeted to be spent in 2006. As of August 2006, of the \$700,000 allocated for consulting services for this initiative, \$400,000 had been spent.

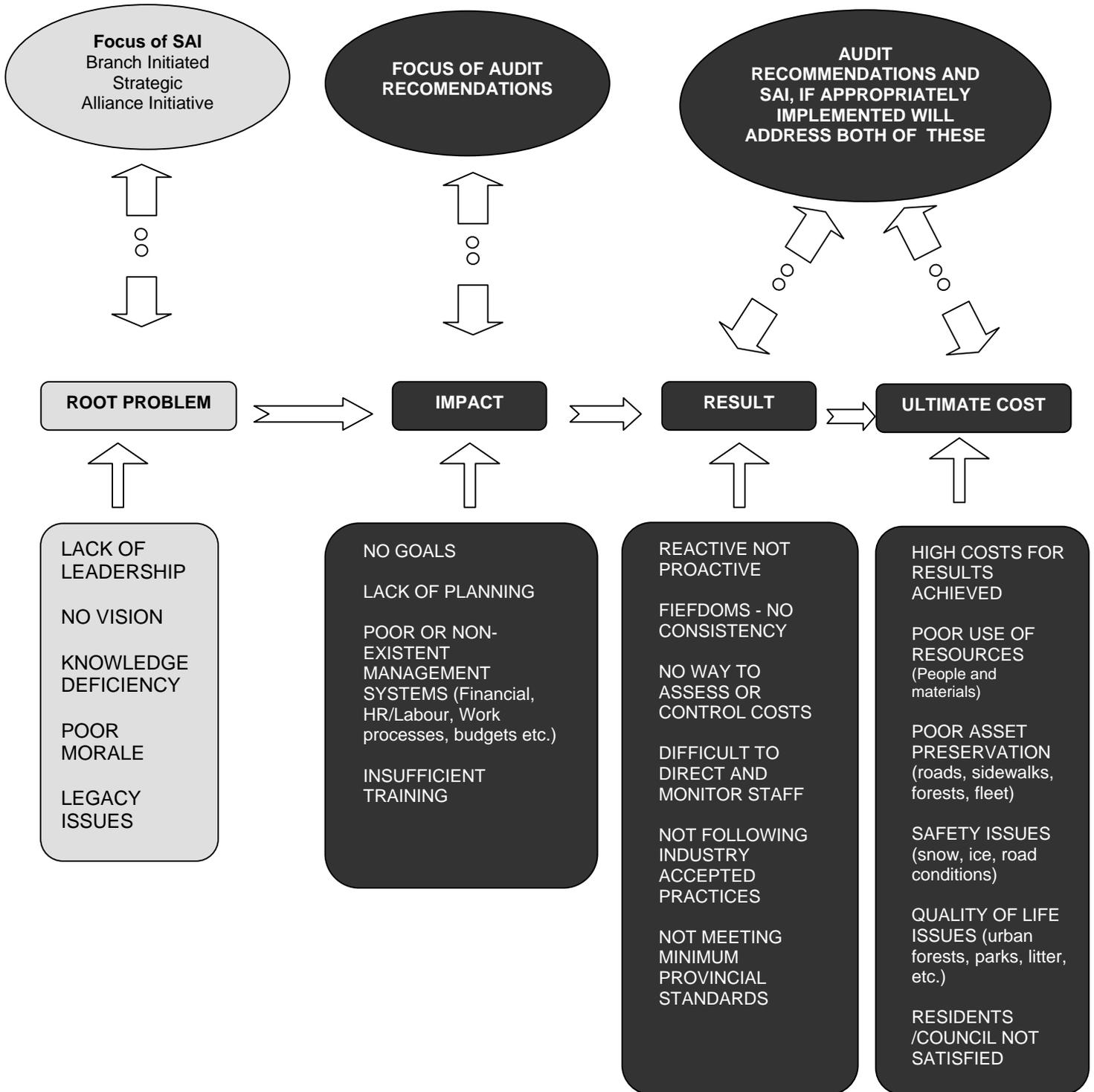
The audit was carried out during the spring and summer of 2006 and observations relate to that period of time. Based on initial findings, the audit focused on the Roads Division and Forestry Division with less attention to Parks and Sports Fields. It should be noted that Parks and Sports Fields are staffed by the same individuals and managers who work on Winter Road Maintenance (snow removal, etc.).

Five years following amalgamation, the Branch continues to struggle and the basics of sound management practices are still not in place. Most managers do not have plans or goals, and few policies, processes and procedures were found to be documented. Systems are not in place to facilitate Branch operations. Financial Management is weak. There is a knowledge deficit within the Branch, of both a technical nature and regarding basic management practices, due to a history of limited training and professional development compounded by the retirements of an experienced workforce.

The Branch must also develop a budget, which accurately reflects their requirements, both for operational purposes and for Council approval. Budgets should reflect “normal” requirements with reserves available for exceptional snowfalls and storms.

The Branch must change from a complaint-driven system to a proactive approach. Virtually all work is performed on an ad hoc basis and is reactive to the 3-1-1 Call Centre (residents typically phone with a complaint/request for service) and directives from Councillors. In the past year there were almost 38,000 calls to the 3-1-1 Call Centre. Management advised that there is an estimated additional 3,000 to 4,000 calls and emails from Councillors.

KEY FINDINGS OF THE AUDIT OF SURFACE OPERATIONS



On average, Surface Operations Branch employees earn more than \$8,000 per year in overtime¹. With more than \$6 million in overtime costs, SOP must analyse the potential benefits of changing staffing patterns to include three (instead of two) daily shifts, weekend shifts in the winter, etc. Staffing levels must be reviewed to ensure adequate service levels while striking a balance between overtime and the number of full and part-time staff retained during slower seasons.

It was difficult to assess the effectiveness of Branch activities, as many decisions are verbal or made daily on white boards and then erased, leaving no permanent record. It was also difficult to identify trends across the operation, as most of the 28 yards operate independently and in isolation.

Road patrols must be reinstated to at least the levels specified in provincial Minimum Maintenance Standards for Municipal Highways (MMSMH) in order to ensure the preservation of capital investments through both routine and preventive maintenance, as well as the safety of municipal roads.

Greater attention should be given to the City's urban forests. If the current trend continues, there is a possibility that an increasing number of mature trees in older neighbourhoods will succumb to disease and extreme weather damage. Tree trimming by crews has historically weakened the structural integrity of older trees. Poor pruning methods continue in some areas. Systematically stabilizing vulnerable trees (e.g. cabling, pruning, injections) will not only be more cost effective than emergency removal following storms, but will also prolong the life of the trees and aesthetics of the neighbourhoods and minimize potential costs to the City through property or personal damages.

As mentioned throughout the audit, many of the shortfalls of the Branch stem back to a lack of supporting management systems. Improvements in the Branch management systems will only be achieved with additional support from Financial Services Branch, Employee Services Branch and Information Technology Services Branch.

As well, to maximize the preservation of City owned capital assets, capital decisions regarding roads in particular must have more input from the Surface Operations Branch. Capital decisions have a significant impact on the Branch's operational efficiency. When we started the audit, the most frequent complaint from Surface Operations Branch was inadequate funding. However, upon review we believe that funds, especially within the Roads Divisions, are likely adequate but need to be better managed.

¹ This excludes shift premiums, on call premiums, etc.

In our opinion, all recommendations contained in this report can be implemented without the requirement for additional funds. However, this may require strategic redeployment of existing resources, both financial and staff.

Recommendation 1

That the Strategic Alignment Initiative visioning exercise be accelerated (without additional costs), particularly those actions which will have a direct impact on operational efficiency with a target implementation of 2007 for budget and cost savings/consolidation.

Management Response

Management agrees with this recommendation.

Implementation priorities are financial accountability and operational planning. Detailed operations planning development workshops have been moved up to begin in December 2006. The objective is a long-term sustainable organization. Completion is expected in Q4 2007.

Recommendation 2

That the Branch adopt an Enterprise wide Risk Management (ERM) approach to determining strategies, setting goals and developing action plans.

Management Response

Management agrees with this recommendation.

The Branch's 2007 workplan includes both a strategic approach and priority setting to incorporate ERM approaches and techniques such as SWOT analysis (Strength/Weakness/Opportunities/Threats) and Risk/Impact assessments. The technology plan, stakeholder strategy, fleet plan, and 2008 workplan will also include these approaches to decision-making with completion in Q3 2007.

Recommendation 3

That the Branch develop annual plans which clearly identify the highest risks to the City, strategies to address, goals and milestones and action plans. Regular reports to senior management should document progress and identify any anticipated or realized obstacles or impediments to the achievement of the annual goals.

Management Response

Management agrees with this recommendation.

This process is already in place, and is included in projects such as the technology plan, stakeholder plan, fleet plan, 2008 workplan, etc. This is scheduled for completion in Q4 2007.

Recommendation 4

That the Branch create a Quality Assurance function for Roads, through the reallocation of existing resources, to provide checks and balances to the quality of road maintenance including appropriate preventive maintenance.

Management Response

Management disagrees with this recommendation.

Industry best practices clearly identify operational quality, effectiveness and efficiency as core management accountabilities. The Branch's approach is to put in place management skills as well as financial and operational planning, and management tools to ensure that staff is knowledgeable, capable, and empowered to manage these items.

Performance Measurement and Business Services Unit has been established with the responsibility to conduct internal Competitive Service Delivery Reviews (CSDR) analysis and support the performance management requirements.

Audit mechanisms are already in place through the Office of the Auditor General. Comparative tools such as OMBI and MPMP are also in place to benchmark performance against other municipalities.

Recommendation 5

That the Branch initiate a weekly analytical reporting mechanism.

Management Response

Management agrees with this recommendation.

A process has already been implemented. Financial reports are being updated. Budget and cost accountability will be at the supervisor level, implementation anticipated for Q4 2007 and program accountabilities at zone service level area (supervisor level) for Q1 2008. Weekly operational meetings include a review of financials and service delivery metrics. Note that recommendations 5, 8, 10, 11, 24 and 25 are linked as part of the operations planning process and have some dependencies.

Recommendation 6

That the Branch re-engineer the planning and allocation of work so that all work is initiated by work orders issued by supervisors or other City staff (not the 3-1-1 Call Centre). Note that this will also facilitate the simplification of the accounting system.

Management Response

Management disagrees with this recommendation.

Work will be proactively planned and managed, and operational planning and accomplishment tracking is a major focus of current efforts. The Branch's work is

activity-based not work-order driven. Work orders are created where individual cost tracking is required. Individual work orders for all of the Branch's work is not necessary and would create significant administrative inefficiencies. Individual work orders are created as required for specific work tracking.

Recommendation 7

That the Branch conduct complete process mapping and develop and implement standard operating procedures.

Management Response

Management agrees with this recommendation and it is already in progress.

This is being implemented in phases based on an assessment of risk and opportunity associated with each process, which will be determined in 2008.

Recommendation 8

That Surface Operations Branch re-engineer their approach to planning work so that the Notification system is a complement to a systematic approach based on routine maintenance, road patrols and preventive maintenance.

Management Response

Surface Operations: Management agrees with this recommendation and it is already in progress and is expected to be completed by Q4 2007.

Information Technology Services: Management agrees with this recommendation. Working together with PWS, ITS can change and implement work orders, preventative maintenance and other functions to assist with planning, as described by the audit. The assessment of the time and cost to implement this will be undertaken starting in Q1 2008.

Recommendation 9

That the Director, Surface Operations, the Director, Information Technology Services and the Manager, 3-1-1 Call Centre collaborate to improve the capability of the Call Centre and related system to facilitate the work of Surface Operations Branch staff responding to notifications.

Management Response

Surface Operations: Management agrees with this recommendation and work is already in progress. The inquiry and notification process is being re-engineered in conjunction with the 3-1-1 Call Centre and ITS staff in Q4 2007. As an interim measure until the results of the re-engineering effort are fully implemented, an operations clerk has been dedicated to work on facilitating notifications, processing and tracking.

In addition, measures are being taken to provide the public and other stakeholders with improved information to proactively satisfy service and information requests. Examples of these proactive measures include: general training on Surface Operations services to all of the Client Service Centres' staff; specialized training on items of interest to the rural community to "Rural Champions" in the Call Centre; updates and enhancements information appearing on the City's website; and implementation of winter parking e-alerts that notify registrants of winter parking restrictions via automated email alerts.

Client Services and Public Information: Management agrees with this recommendation. Management will continue to work with Councillors' offices to request that they use 3-1-1 to forward service requests to all operating departments.

Information Technology Services: Management agrees with this recommendation. Working together with PWS and the 3-1-1 Call Centre, ITS can improve and enhance the integration and data sharing/transfer between Request for Service and SAP, at an estimated cost of \$450,000. The business case for this project will be submitted to the Value Assessment Program and will be prioritized along with other Corporate IT requirements. It is anticipated that this project can be initiated in Q1 2008.

Recommendation 10

That accomplishment units be redesigned to measure quantities, which the Branch should be monitoring to conform to industry best practices.

Management Response

Management agrees with this recommendation and it is already in progress.

Accomplishment units are being updated as part of the comprehensive operations planning initiative. Financial reports are being modified to include reporting of accomplishment units by activity, all scheduled for implementation in Q4 2007.

Recommendation 11

That, for the year 2007, an extremely simplified and streamlined budget be prepared for the Branch. This budget should roll up from the bottom as opposed to the current roll down approach from the top and should focus on the information, which managers need to make financial decisions.

Management Response

Surface Operations: Management agrees with this recommendation. Simplification of management reporting is underway. Some bottom-up analysis has been completed; however complete bottom-up budgeting is not feasible until operational planning functions have been implemented. This will be implemented in Q4 2007.

Financial Services: Management agrees with this recommendation. The 2007 budget will be developed at a sufficiently detailed level to reflect the decision-making structure of the organization and summarized for the corporate budget presentation. The audit suggested the need for a greater level of detail for SOP operations. Changes were initiated in 2006 through the Branch's SAI Project to develop and monitor the budget within their Maintenance Management System (MMS) at a zone and activity level, accessible by Supervisors, Area Managers and Managers.

Recommendation 12

That the Surface Operations Branch's budget not be increased until the Branch has a good understanding of their financial situation.

Management Response

Management disagrees with this recommendation.

The budget, and Branch operations and services will be reviewed in a manner prescribed by Council to be established through the Budget Directions.

Recommendation 13

That the Surface Operations Branch's budget not be increased while the Branch refines the manner in which it formulates its budget requests and redirects existing funds to programs, which do have a strategic plan and related specific budget, specifically the Forestry program.

Management Response

Management disagrees with this recommendation.

The budget, and Branch operations and services will be reviewed in a manner prescribed by Council to be established through the Budget Directions.

Recommendation 14

That the entire Activity Sheet data entry process be re-engineered, to provide the necessary financial and payroll information within the SAP system.

Management Response

Management agrees with this recommendation.

The activity sheet is being reviewed as part of the Strategic Alignment Initiative Performance Management in Q1 2008. Once the Branch's performance measurement and management framework is developed, the activity sheet and associated data collection/entry processes will be re-engineered to ensure the necessary information is captured and entered efficiently. As an immediate measure, to better utilize data that can already be entered into the system, the

Branch is incorporating accomplishments by reporting on a number of key operational reports to improve the information available for operational decisions.

Recommendation 15

That employees be equipped to key in accomplishment levels electronically to avoid travel costs and duplication of effort; and that checks and balances be built into this system for verification of hours works, etc. by the Site Supervisor and District Manager.

Management Response

Management agrees with this recommendation.

As an immediate measure, the administrative staff have been decentralized to field locations allowing for support closer to those who need it. This minimizes redundancy and eliminates the vast majority of travel costs associated with the delivery of activity sheets to headquarters. Checks and balances already exist, within the system, to ensure that supervisors approve all activity sheets. As part of the activity sheet re-engineering effort identified in Response 15, electronic means of having field staff enter time and accomplishments with appropriate checks and balances will be considered in the future.

Recommendation 16

That, in conjunction with the proposed simplified budget system, Zone Supervisors receive current and accurate financial reports indicating the actual expenditures as well as the budgeted amounts.

Management Response

Management agrees with this recommendation.

The supervisor report currently includes only cost and is being updated to include budget figures. This will be implemented by Q3 2007.

Recommendation 17

That any cutbacks proposed to Council during budget deliberations clearly state any impact on both service levels, City standards and condition of infrastructure (e.g. deterioration from lack of maintenance).

Management Response

Infrastructure Services: Management agrees with this recommendation.

Through the LRFP process, investment levels are identified to maintain the City's infrastructure assets. In the case of roads, the level of investment identified in the LRFP is to maintain the overall network at current levels (i.e. approximately 20% in need of resurfacing or reconstruction). When approved budget levels are less than the needs identified in the LRFP, as has been the case in previous years, over time

this results in further deterioration of the overall network condition and increases the pressure on the operating budget.

As part of the City Corporate Plan, the Infrastructure Services Branch (ISB) is required to define service levels for municipal infrastructure. Once completed in 2007/08, this will provide an ability to create more direct links between funding levels and impacts on service levels.

Recommendation 18

That Council be advised of the annual operating cost increase required or savings anticipated when considering major capital decisions.

Management Response

Infrastructure Services: Management agrees with this recommendation.

Growth in the transportation network has a significant impact on operating costs. Growth information is tracked by ISB and provided to SOP so that this can be reflected as an operating pressure as part of the annual budget process.

Recommendation 19

That the Surface Operations Branch and the Employee Services Branch work together to develop basic routine monthly reports to facilitate management of SOP staff.

Management Response

Surface Operations: Management agrees with this recommendation and this process has already been initiated.

Staffing coordinator position, established through Strategic Alignment Initiative, will facilitate the implementation of these measures in Q4 2007.

Employee Services: Employee Services will meet with Surface Operations staff to review the HR reports already available through SAP-HR, to assist in managing human resources. As well, Employee Services will ensure that Surface Operations staff is able to access the HR information required to manage their staff.

Recommendation 20

That Surface Operations Branch develop and implement standard policies and procedures to reduce both “routine” overtime work and on-call work of Supervisors and Maintenance Coordinators. Consideration should be given to changing shift start and end times, as well as sharing on-call responsibilities among two or more yards.

Management Response

Management agrees with this recommendation and process has already been initiated.

For example in Parks, each Area Manager places one Supervisor on call to handle after hour emergencies across their entire district. They do not put someone on call for each work unit. They also assess the call to see if it is truly an emergency or if it can wait until the next workday so as to avoid the overtime cost of responding to the call. There is little non-discretionary overtime worked in the Branch.

The Roads Division has also implemented a no overtime payment procedure for the 6th & 7th day worked on 24/7 City core shift, which brought forth a saving of \$165,000. Also the start time for night shift has been changed to 10:30 p.m., which allows regular hour coverage for morning rush hour, therefore reducing overtime costs. The Branch continues to move forward with new initiatives and will finalize in Q4 2007.

Recommendation 21

That Surface Operations Branch develop and implement standard policies and procedures to reduce both “routine” overtime work and that on-call work be scheduled.

Management Response

Management agrees with this recommendation.

New policies and procedures, such as the alternative shift arrangements for 24/7 coverage in the downtown area and the shift start time procedures were implemented on November 15, 2006 for the 2006/2007 winter season.

These measures have already resulted in a \$200,000 reduction in overtime costs. The Branch continues to work in developing and implementing policies and procedures to reduce costs incurred with overtime and on-call work. The Branch manages its overtime in accordance with the draft Corporate Overtime Policy.

Recommendation 22

That Surface Operations Branch explore new and innovative staffing schedules to optimize staff costs and productivity including seven day shifts, three shifts per day, staggered shifts, shared on-call, etc.

Management Response

Management agrees with this recommendation and it is already in progress. Assessment and implementation of timelines are being determined.

Recommendation 23

That Surface Operations Branch calculate whether they have the best complement of full-time workers to optimize the use of overtime and salaries.

Management Response

Management agrees with this recommendation.

The operational planning initiative in Q1 2008 will enable the Branch to better quantify resource needs to meet service demands. This will be compared with available staff time, overtime utilization, productivity improvement opportunities, contracting mix, and alternative service delivery options to identify the best complement of full-time workers for the Branch.

Recommendation 24

That Surface Operations Branch streamline and reduce the management levels of the organizational structure and redeploy redundant personnel into other areas identified in this report (e.g. road patrols).

Management Response

Management agrees with this recommendation and is already in progress.

The Strategic Alignment Initiative Program has initiated a project that forms part of the Transition Manager's Responsibility, where a team has been created to review the supervisory alignment and number of operational units. The work is currently underway working towards completion for Q4 2007.

Recommendation 25

That Surface Operations Branch calculate how many person years are lost to the Time Off In Lieu (TOIL) Policy and determine whether they are hiring sufficient full-time, part-time or temporary workers to optimize costs given in lieu time leave and vacations.

Management Response

Management agrees with this recommendation.

The amount of TOIL accumulated annually is available through SAP. The analysis is estimated to be completed by Q1 2008. There is no provision for backfilling for staff during short-term absences. The Branch does make use of temporary staff, students and contracted services to supplement the work of full time staff.

Recommendation 26

That Surface Operations Branch schedule vacations outside peak work seasons.

Management Response

Management agrees with this recommendation and it has already been completed.

Vacation leave is to be taken at a mutually agreeable time and every attempt is made to schedule vacations during non-peak periods. It must be recognized that most wage staff in SOP are multi-tasked and cross-trained to provide maximum flexibility in meeting peak work demands. For example, staff will work in roads on snow clearing operations during the winter and in parks or traffic during the summer. This results in very little non-peak periods for these staff. Work units

generally ensure that the number of staff off on vacation leave at any one time is minimized to ensure that the required work can still get done. Also, during the peak holiday season (i.e. summer) students and contracted services are available to supplement the full time staff.

Recommendation 27

That Senior Managers, Zone Supervisors and Maintenance Coordinators receive additional training in basic management skills and become more active in industry associations (e.g. Ontario Good Roads Association) to foster knowledge of industry best practices.

Management Response

Management agrees with this recommendation.

Through the Investment in People project of the Strategic Alignment Initiative Program, a training program has been established for Crew Leaders, Maintenance Coordinators and Supervisors. The guidelines for enrolment and course content are presently being reviewed by Labour Relations, Human Resources and the Corporate Learning Centre, with an expected completion in Q4 2007.

The Branch is continuously pursuing new initiatives and opportunities for staff training. At the senior level of the Branch, the Management Team has identified a Succession Planning project in its 2007 Branch Workplan.

Recommendation 28

That a training budget be reinstated to a level which will ensure a continued skilled workforce.

Management Response

Management agrees with this recommendation.

Current initiatives, which have been undertaken for example is the development of a Crew Leader, Foreperson and Supervisor Training Program, which will be used as a succession planning mechanism. This will ensure corporate memory and field experience is transferred to junior employees that are being groomed to replace retiring Supervisors. Job descriptions will be created that will set criteria for participation in the training program and will recognize the increasing requirement for technical knowledge, financial accountability, operational planning and ability to deal with human resource issues.

Training programs are being set-up for each level in the supervisory structure to match the duties outlined in the job descriptions. Courses are provided through a combination of internal corporate training initiatives and external experts or organizations that specialize in activities related to Health and Safety or roads, parks or forestry maintenance. Participants in the training programs will be teamed

with an experienced supervisor/manager to monitor performance and mentor the individuals on the expectations for each successive step in the structure.

Each candidate in the training program will have to complete all phases of the training and demonstrate the ability to put the training into practice before they will be considered for advancement to the next level supervision. This practice should ensure that promotions are based on merit and a proven ability to perform the increasingly complex requirements of the field supervisors.

Management Level Training with organizations such as OGRA, APWA, etc. have also been initiated. Training priorities will be identified during the 2008 budget.

Recommendation 29

That Branch resources be redirected so that Road Patrols are reinstated in accordance with the City's standards.

Management Response

Management agrees in principle with this recommendation.

In May 2003, a report was brought forward to Council recommending (8) FTEs to enable Service Operations to increase road patrol capacity with the objective of meeting road patrol guidelines, however this recommendation was not approved. Furthermore during the 2004 Universal Program Review cuts, \$1.042M associated with road patrol on collector and residential streets were cut from the Surface Operations Branch budget.

Recommendation 30

That the Branch develop a Public Tree By-law and Best Management Practices By-law (Community Forests).

Management Response

Management agrees with this recommendation.

Municipal Trees and Natural Areas Protection By-law 2006-279 was approved in July 2006 and implemented on September 1, 2006. In 2007 a Resource Management Plan for the South March Highlands is under development with subsequent 20-year plans identified for updating as they expire, i.e. Marlborough Forest in 2010.

Recommendation 31

That the Forestry Division develop long-term goals and implement an Urban Forest Management Plan with the objective to replenish older City trees with new stock, factoring disease and pest resistant species.

Management Response

Management agrees with this recommendation.

A five year Trees and Forests Maintenance Strategy was approved by Council in October 2006 with funding deferred to the LRFP in 2008. Life cycle trimming was initiated in 2006 and will continue in 2007 in the areas of highest priority, such as those where sensitive marine clay is known to exist to maintain existing trees and the City's tree planting programs will continue to replace trees as they reach the end of their life cycle with species and location appropriate replacements pending priority setting and budget approvals.

Recommendation 32

That the Branch adopt a tree management system, including a complete tree inventory, ensuring that the system has adequate input, storage, query (for forest management planning) and reporting capabilities including mapping that tie in with the corporate-wide GIS if possible.

Management Response

Management agrees with this recommendation is already in progress.

The five year Trees and Forests Maintenance Strategy, which is completed and was approved by Council, recognizes the requirement to produce and maintain an accurate tree inventory and identifies required staff and equipment resources of approximately \$575,000. Work will progress on a priority basis (core area, boundary trees along woodlots and ravines in suburban areas) in 2007.

Recommendation 33

That the City explore options to consolidate tree trimming with Hydro Ottawa in order to ensure that trees trimmed for hydro lines are not damaging the life expectancy of the tree.

Management Response

Management agrees with this recommendation and the work is already in progress.

The initial meeting was held to review the operations, roles and responsibilities. Arboricultural specifications have been exchanged for comment and the review of professional content.

In 2007, management staff will be pursuing the development of common technical documents. City operations staff will work with their counterparts to maintain consistency in their respective trimming operations and to explore new initiatives such as working cooperatively to plant replacement trees.

Recommendation 34

That the Forestry Division develop guidelines and a public awareness campaign for the public, developers and other municipal branches and departments to promote new tree plantings that are of a variety more suited to the local climate and soil conditions.

Management Response

Management agrees with this recommendation.

Forestry Services 2007 workplan includes an increase in internal/external communication and will focus on completion for Q4 2007. Target audiences have been identified i.e. By-law Services, Infrastructure staff, Development Approvals (internal) and local community associations and forestry interest groups (external). Arboricultural and forestry technical information will be consolidated and formatted in conjunction with other Surface Operations Branch initiatives.

Recommendation 35

That Fleet Services' management review its practices pertaining to preventative maintenance and off-season storage with a view to optimizing the life span of the equipment.

Management Response

Management agrees with this recommendation.

Work is already in progress as part of Strategic Alignment Initiative Facility rationalization plan. The implementation team will include representation from Fleet Services to assess maintenance impact of inside storage versus outside particularly during winter season. The Branches will work together in Q3 2007 to ensure the respective accountabilities optimize the lifespan of the equipment.

Recommendation 36

That Surface Operations Branch identify dedicated resources to direct that minimum standards be met in tendering and to coordinate and track maintenance and replacement of vehicles; and that such staff resources be supported by ongoing training on current industry practice and governmental standards related to vehicle and equipment function and purchasing.

Management Response

Surface Operations: Management agrees with part of this recommendation.

The Surface Operations Branch has dedicated a position to provide Fleet with a single point of contact for acquisition requirements. This position will also be working with Fleet Services on the development of a fleet equipment asset management strategy.

Fleet Services: As a Center of Expertise, Fleet Services has the responsibility for planning, acquisition, disposal and replacement of vehicles. As outlined in the Service Level Agreement (SLA), the operator (Surface Operations) is responsible for identifying operational requirements outlining what the equipment is required for. Fleet Services take that information and develops specifications to meet those requirements based on the City of Ottawa's purchasing By-law. Fleet's role is to

understand client requirements and provide them with equipment to meet the minimum operational requirements in a cost effective manner.

Management does not agree with the part of the recommendation to provide Surface Operations staff with training on specifications as this would be a duplication of effort within the city, and would contravene the COE model and the SLA. This recommendation states that Surface Operations Branch should be responsible for areas that they are not accountable.

Recommendation 37

That the truck bodies be placed on a rehabilitation program that would see them inspected, sandblasted and re-painted as the rusting begins to appear.

Management Response

Management disagrees with this recommendation.

Fleet Services does not perform any cosmetic repairs for rusting, as it does not affect the operation of the vehicle. The condition of vehicle bodies is monitored as part of the annual inspection program. Structural repair is done when the vehicle does not meet the Ministry of Transportation requirements. Rusting is normally repaired if it is assessed that the rust will shorten the life of the vehicle. Cosmetic repairs are not done as a matter of course due to the additional cost.

Recommendation 38

That salt and sand spreaders (and other major equipment not in use seasonally) be washed and lubricated to prevent corrosion of the connections, electronics, conveyor systems and moving parts during the off-season.

Management Response

Management agrees with this recommendation.

Washing, lubricating and off-season storage is an operational task and is part of regular seasonal changeover.

Recommendation 39

That indoor storage be considered to keep single season units out of the weather until required; or that other provisions for secure mothballing of equipment be provided.

Management Response

Management agrees with this recommendation.

This will be considered as part of the facility rationalization project currently being undertaken as part of the Strategic Alignment Initiative, completion in Q3 2007.

Conclusion

The Branch will need to change their way of operating. They must move from reactive, independent localized centres to proactive, unified and complimentary centres. Operations must be standardized and based on industry accepted best practices. This does not imply expensive state-of-the-art technologies for the sake of the technology, but rather the most effective, efficient and economical approach to operations, which achieves the City's vision as outlined in strategic documents such as the 20/20 Environmental Strategy and operational policies such as the road maintenance standards.

Acknowledgement

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

SOMMAIRE

La vérification des Opérations de surface de la Ville d'Ottawa était prévue dans le Plan de vérification de 2006 du vérificateur général de la Ville d'Ottawa qui a été présenté au Conseil le 15 décembre 2004.

La Ville a la responsabilité et assure la gestion de 5 500 kilomètres de routes, de 37 kilomètres du Transitway, de 1 500 kilomètres de trottoirs et sentiers, de 675 terrains de sport, de 200 000 arbres en bordure des emprises et de 890 parcs. Le mandat premier de la Direction des opérations de surface (DOS) consiste à assurer l'entretien, le fonctionnement et la gérance de ces biens. D'autres groupes opérationnels se sont vu confier la responsabilité d'entretenir les véhicules, l'équipement et les installations relevant de la DOS. En 2006, l'effectif de cette dernière était de 824 équivalents temps plein (ETP).

La Direction des opérations de surface (DOS) a connu d'importants changements, défis et problèmes depuis la fusion. Le haut taux de roulement, les tensions dans les relations de travail, les différentes cultures en présence, les rapports hiérarchiques, les structures organisationnelles, les méthodes de travail, le manque de planification (que ce soit sur une base quotidienne, mensuelle, ou annuelle), le manque de coordination entre les budgets des immobilisations et les budgets de fonctionnement, le fait que l'information financière n'est pas acheminée aux cadres intermédiaires et des superviseurs et la surveillance insuffisante des budgets sont autant de facteurs qui ont nui à l'efficacité de l'organisation.

Au cours des 5 dernières années, les dépenses réelles brutes de la Direction des opérations de surface ont augmenté de près de 20 %, passant de 95 millions de dollars en 2002 à 113 millions de dollars en 2006 (selon les données budgétaires), ce qui équivaut à des augmentations moyennes de près de 5 % par année. Ces augmentations se sont produites immédiatement après la fusion, à un moment où une gestion intensive du changement devait s'imposer en vue de l'établissement d'une nouvelle norme à l'échelle de la Ville concernant l'entretien des routes, des trottoirs, des parcs et des forêts municipales urbaines et rurales. Un examen plus détaillé révèle que l'augmentation se répartissait comme suit : 12 millions de dollars pour l'entretien hivernal des routes, 9 millions de dollars pour les parcs et les terrains de sport et 3 millions de dollars pour les services forestiers, alors que le bureau du directeur et les services estivaux enregistraient des diminutions d'environ 3 millions de dollars chacun.

Portée de la vérification

Cette vérification comprenait un examen approfondi de tous les aspects des activités de la Direction des opérations de surface de la Ville d'Ottawa, y compris l'entretien des routes, l'entretien des parcs et des terrains de sport ainsi que les services forestiers, à l'exception des services d'entretien hivernal des routes et des trottoirs. À l'origine, les services d'entretien hivernal étaient exclus du champ de la vérification, mais à mesure que cette dernière a progressé, on a documenté et inclus dans le présent rapport des constatations concernant les opérations hivernales.

Objectifs

Cette vérification avait pour objectif de soumettre à un examen la Direction visant à déterminer si l'on avait atteint les objectifs fixés pour elle. Quatre aspects ont été retenus, plus précisément :

1. **La conformité** – Déterminer si la Direction se conforme à tous les règlements et lois qui régissent ses opérations, y compris à la législation pertinente et aux autorisations de dépenser énoncées dans le budget annuel, ainsi qu'aux normes d'entretien minimal municipales et provinciales.
2. **La gestion financière** – Examiner les résultats financiers des opérations en fonction des plans à court terme et à long terme et déterminer le niveau de fiabilité des systèmes financiers.
3. **La planification** – Examiner les pratiques de gestion dans l'ensemble de la Direction afin de déterminer les répercussions de la planification (planification quotidienne, mensuelle, annuelle et à long terme, et intégration avec les plans d'immobilisations) sur l'économie, l'efficacité et l'efficacité des opérations actuelles.
4. **Le rendement (optimisation des ressources)** – Examiner les pratiques de gestion, les buts et objectifs, les contrôles ainsi que les systèmes de surveillance et de production de rapports dans l'ensemble de la Direction en vue d'évaluer le coût, l'efficacité et l'efficacité des opérations actuelles.

Trois principes fondamentaux entrent en jeu relativement à toutes les activités menées à bien par le personnel de la Direction en matière d'entretien et de gestion des biens. Ces principes constituent le fondement de la présente vérification et sont liés à chacune des recommandations énoncées dans le rapport. Ils sont les suivants :

- préservation des immobilisations appartenant à la communauté;
- sécurité de la communauté dans l'utilisation des propriétés municipales;
- qualité de vie.

Bon nombre de nos constatations présentent des interrelations avec une vaste gamme de résultats. Le tableau qui suit démontre ces corrélations.

Nous sommes d'avis que toutes les recommandations énoncées dans le présent rapport peuvent être mises en œuvre sans qu'il soit nécessaire d'affecter des fonds supplémentaires. Cependant, cela supposera de doter rapidement les postes existants qui ont récemment été approuvés dans le nouveau groupe intitulé Planification des opérations, Recherche et Services techniques, et de redéployer de manière stratégique les ressources existantes, qu'il s'agisse des ressources humaines ou de ressources financières.

Malgré nos constatations concernant l'état actuel de la situation à la Direction, certains indices donnent à penser que la situation pourrait s'améliorer grâce à la nouvelle direction, combinée à l'Initiative d'harmonisation stratégique (IHS). Cependant, nous sommes préoccupés par le fait que les priorités et échéanciers établis par la Direction n'accordent pas suffisamment d'importance à l'objectif consistant à mettre de l'ordre dans ses finances dans les plus brefs délais.

À ce jour, l'IHS s'est surtout concentrée sur les questions liées à la redéfinition des limites et aux ressources humaines, portant peu d'attention à la mise en œuvre de mécanismes de contrôle adéquats relativement au montant de 113 millions de dollars prévu au budget des dépenses de 2006. Jusqu'en août 2006, on a alloué 700 000 \$ pour des services de consultation dans le cadre de cette initiative, dont 400 000 \$ ont été dépensés avant et durant la vérification.

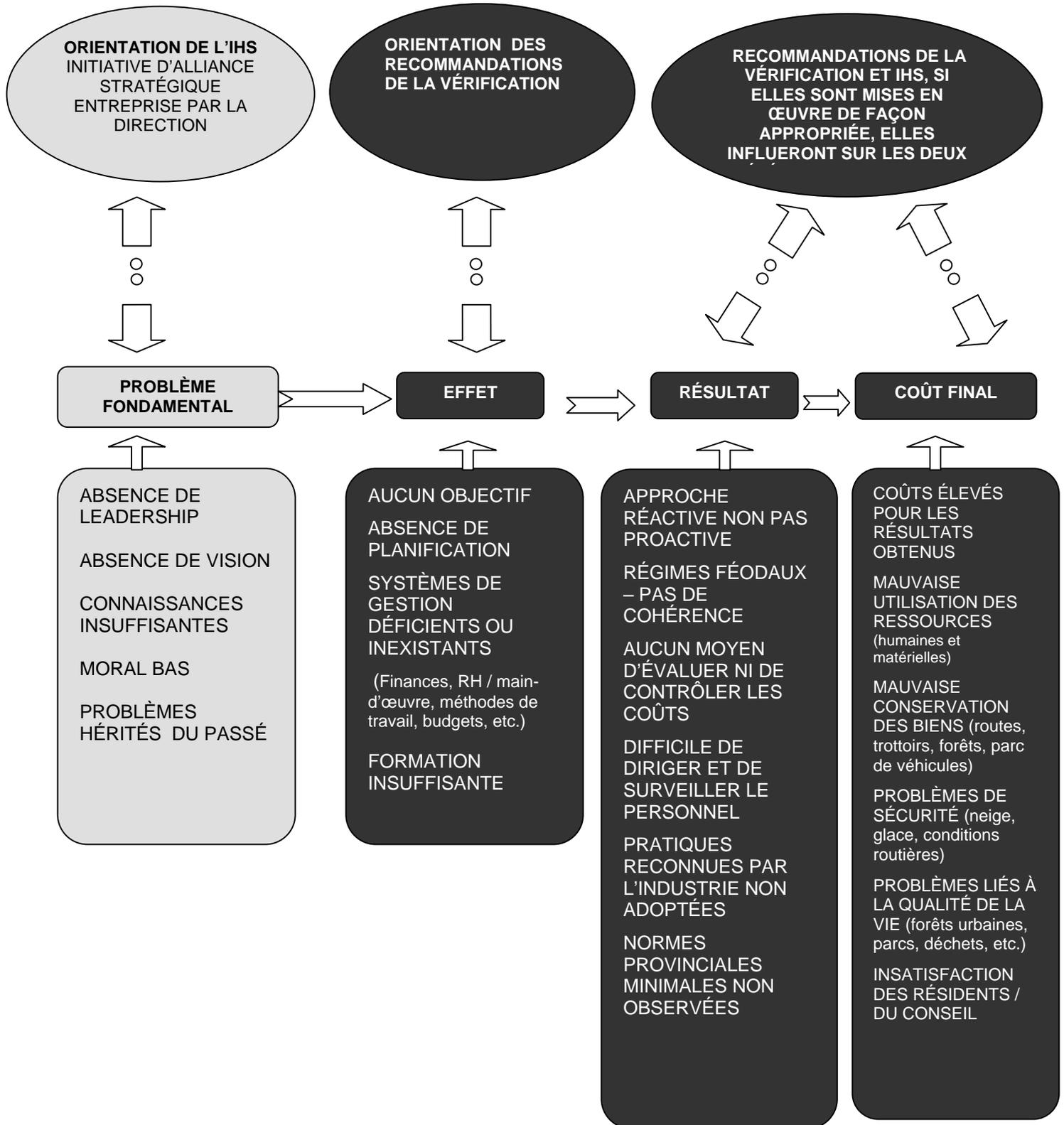
On a effectué la vérification au cours du printemps et de l'été 2006, et les constatations portent sur cette période. À la lumière des constatations initiales, la vérification s'est concentrée sur les groupes de l'entretien des routes et des services forestiers, en se préoccupant moins des parcs et terrains de sport. Il convient de noter que le personnel et les gestionnaires des parcs et terrains de sport sont également chargés de l'entretien hivernal des routes (enlèvement de la neige, etc.).

Cinq ans après la fusion, la Direction connaît toujours des problèmes et on n'a toujours pas instauré de saines pratiques de gestion fondamentales. La plupart des gestionnaires n'ont pas de plans ni d'objectifs, et les politiques, procédés et procédures sont très peu documentés. Il n'y a pas de systèmes visant à faciliter les activités de la Direction. La gestion financière est insuffisante. Au sein de la Direction, les connaissances sont défaillantes, autant les connaissances techniques que celles liées à des pratiques de gestion élémentaires en raison des possibilités de formation et de perfectionnement professionnel limitées, auxquelles s'ajoutent les départs à la retraite de travailleurs expérimentés.

La Direction doit également élaborer un budget qui reflète fidèlement ses exigences à des fins opérationnelles et d'approbation par le Conseil. Les budgets doivent traduire les exigences « normales » et prévoir des réserves pour des chutes de neige et tempêtes inhabituelles.

La Direction doit abandonner son système fondé sur les plaintes pour adopter une approche proactive. Presque tous les travaux sont exécutés selon les besoins du moment et structurés autour du système téléphonique 3-1-1 (généralement, les citoyens appellent pour se plaindre ou faire une demande de service) et des directives des conseillers. Au cours de la dernière année, le Centre 3-1-1 a reçu quelque 38 000 appels, ce à quoi se sont ajoutés approximativement 3 000 à 4 000 appels et courriels de conseillers.

PRINCIPALES CONSTATATIONS DE LA VÉRIFICATION DES OPÉRATIONS DE SURFACE



L'employé moyen de la DOS gagne plus de 8 000 \$ par année en heures supplémentaires². Les coûts des heures supplémentaires représentant plus de 6 millions de dollars, la DOS doit analyser les avantages potentiels associés au fait de modifier l'organisation de son travail en incluant trois quarts de travail quotidiens (plutôt que deux), des quarts de travail la fin de semaine durant l'hiver, etc. On doit revoir les niveaux de dotation pour assurer des services adéquats tout en maintenant un équilibre entre les heures supplémentaires et le nombre d'employés à temps plein et à temps partiel à conserver durant les saisons moins occupées.

Évaluer véritablement l'efficacité des activités de la Direction a été difficile, car de nombreuses décisions sont communiquées verbalement ou inscrites au jour le jour sur des tableaux, puis effacées, ne laissant aucune trace permanente. Il a également été difficile de mettre au jour des tendances de l'ensemble des opérations, car la plupart des 28 dépôts fonctionnent de façon indépendante et isolée.

On doit rétablir le nombre de patrouilles routières selon, au minimum, le nombre indiqué dans les Normes minimales d'entretien des routes municipales afin d'assurer la préservation des immobilisations au moyen d'entretiens périodiques et préventifs, ainsi que la sécurité des routes municipales.

Une plus grande attention devrait être apportée aux forêts urbaines. Si la tendance actuelle persiste, il y a possibilité qu'un nombre croissant d'arbres matures situés dans les quartiers les plus anciens succomberont à la maladie et aux dommages causés par les conditions climatiques extrêmes. L'élagage par les équipes a traditionnellement affaibli l'intégrité structurelle des vieux arbres. On utilise encore ces mauvaises méthodes d'élagage dans certains secteurs. Non seulement il sera plus économique de stabiliser systématiquement les arbres vulnérables maintenant (p. ex., à l'aide de câbles, en les émondant et en leur faisant des injections) que de procéder à leur enlèvement d'urgence, mais on prolongera aussi leur durée de vie et l'esthétique des quartiers, et on réduira les coûts potentiels pour la Ville occasionnés par les dommages aux propriétés ou aux personnes.

Comme on le mentionne tout au long du rapport, beaucoup de lacunes de la Direction sont attribuables à l'absence de systèmes de gestion auxiliaires. L'amélioration des systèmes de gestion de la Direction ne sera possible qu'avec le soutien supplémentaire de la part des groupes des Services financiers, des Services aux employés et Services de la Technologie de l'information.

Par ailleurs, pour maximiser la préservation des immobilisations de la Ville, on doit consulter davantage le groupe des Opérations de surface relativement aux décisions liées aux immobilisations, plus particulièrement celles concernant les routes. Les

² Ce montant n'inclut pas les primes de quart, de disponibilité, etc.

décisions d'immobilisations ont des répercussions importantes sur l'efficacité opérationnelle de la Direction. Lorsque nous avons commencé la vérification, le financement inadéquat était la plainte la plus fréquente de la DOS. Mais, à la suite de notre examen, nous pensons que les fonds, particulièrement ceux de la Division des Routes, sont probablement suffisants, mais qu'ils doivent être mieux gérés.

À notre avis, toutes les recommandations contenues dans le présent rapport peuvent être mises en œuvre sans l'injection de fonds supplémentaires. Toutefois, il faudra réaffecter de façon stratégique les ressources existantes, tant financières qu'humaines.

Recommandations

Recommandation-1

Que l'exercice de vision de l'Initiative d'harmonisation stratégique (IHS) soit accéléré (sans coûts additionnels), plus particulièrement les mesures qui auront des répercussions directes sur l'efficacité opérationnelle, en fixant leur mise en œuvre en 2007 aux fins de redressement budgétaire et de réalisation d'économies et consolidation de coûts.

Réponse de la direction

La direction est d'accord avec cette recommandation.

La responsabilité financière et la planification opérationnelle sont les priorités à mettre en œuvre. On a devancé la tenue des ateliers sur la mise au point de la planification détaillée des opérations afin qu'ils commencent en décembre 2006. L'objectif visé est une organisation viable à long terme. On prévoit que les ateliers seront terminés au cours du quatrième trimestre de 2007.

Recommandation 2

Que la Direction adopte une approche fondée sur la gestion des risques organisationnels (GRE) pour la définition des stratégies, la détermination des objectifs et l'élaboration de plans d'action.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Le plan de travail 2007 de la Direction contient une approche stratégique et établit un objectif prioritaire consistant à intégrer au plan de travail des approches et techniques de GRE telles que l'analyse des forces, des faiblesses, des possibilités et des menaces (FFPM) et des évaluations des risques et des répercussions. Le plan sur la technologie, la stratégie à l'égard des intervenants, le plan du parc de véhicules et le plan de travail 2008 incluront aussi ces approches pour la prise de décisions et ils seront terminés au cours du troisième trimestre de 2007.

Recommandation 3

Que la Direction élabore des plans annuels qui définissent clairement les risques les plus élevés pour la Ville, des stratégies à examiner, des objectifs et étapes clés et des plans d'action. Les rapports remis régulièrement aux cadres supérieurs devraient documenter les progrès et définir des obstacles prévus ou confirmés, ou des empêchements à l'atteinte des objectifs annuels.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Le processus est déjà en place et le plan sur la technologie, le plan à l'égard des intervenants, le plan à l'égard du parc de véhicules et le plan de travail 2008 tiennent compte de ces ajouts. On prévoit terminer les plans dans le quatrième trimestre de 2007.

Recommandation 4

Que la Direction crée par réaffectation des ressources existantes, un mécanisme d'assurance de la qualité pour la Division des routes qui permettrait de contrôler la qualité de l'entretien des routes, y compris l'entretien préventif adéquat.

Réponse de la direction

La direction n'est pas d'accord avec cette recommandation.

Les pratiques exemplaires de l'industrie indiquent clairement que la qualité opérationnelle, l'efficacité et l'efficience sont des responsabilités de gestion fondamentales. L'approche de la Direction consiste à mettre en place les compétences en gestion et une planification financière et opérationnelle, ainsi que des outils de gestion pour s'assurer que son personnel est bien informé, compétent et habilité à gérer ces aspects.

On a créé l'Unité de la mesure du rendement et des services opérationnels et on lui a confié la responsabilité d'analyser les examens de la prestation de services concurrentiels à l'interne et de renforcer les exigences en matière de gestion du rendement.

Des mécanismes de vérification sont déjà en place par l'entremise du Bureau du vérificateur général. Des outils comparatifs tels que l'Initiative d'analyse comparative des services municipaux de l'Ontario (IASCM) et le Plan de gestion des biens de la mission sont également mis en œuvre pour évaluer notre rendement par rapport à celui des autres municipalités.

Recommandation 5

Que la Direction mette en place des mécanismes de communication de rapports d'analyse hebdomadaires.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Un mécanisme est déjà en place. On est à mettre à jour les rapports financiers. La responsabilité budgétaire et l'obligation redditionnelle à l'égard des coûts incomberont aux superviseurs à partir du quatrième trimestre de 2007, tandis que le secteur des niveaux de service (niveau des superviseurs) sera responsable des programmes à compter du premier trimestre de 2008. Les réunions hebdomadaires portant sur les opérations incluent un examen des mesures financières et de prestation de services. Veuillez noter que les recommandations n^{os} 5, 8, 10, 11, 24 et 25 sont liées dans le cadre du processus de planification des opérations et qu'elles sont interdépendantes.

Recommandation 6

Que la Direction restructure la planification et la répartition du travail de sorte que tous les travaux soient entrepris à la suite de la délivrance de bons de travail par les superviseurs ou d'autres employés de la Ville (non pas par le système 3-1-1). On notera qu'en procédant ainsi, on simplifierait le processus comptable.

Réponse de la direction

La direction n'est pas d'accord avec cette recommandation.

Le travail sera planifié et géré de façon proactive. À l'heure actuelle, on accorde beaucoup d'importance à la planification opérationnelle et au suivi des réalisations. À la Direction, ce sont les programmes d'activités, et non des bons de travail, qui dictent le travail à accomplir. On utilise des bons de travail lorsqu'il faut suivre les coûts individuels. Il n'est pas nécessaire d'utiliser des bons de travail pour tous les travaux de la Direction qui auraient pour effet de créer de nombreuses pratiques administratives non efficaces. On crée des bons de travail au besoin lorsqu'on doit surveiller des travaux en particulier.

Recommandation 7

Que la Direction entreprenne l'élaboration complète des processus, et qu'elle crée et mette en œuvre des procédures normales d'exploitation.

Réponse de la direction

La direction est d'accord avec cette recommandation et des travaux dans ce sens sont déjà en cours.

On est à mettre en œuvre progressivement les processus et procédures en fonction d'une évaluation des risques et possibilités associés à chaque processus, qui seront définis en 2008.

Recommandation 8

Que la Direction remanie son approche pour ce qui est de la planification du travail afin que le système de notification vienne compléter une approche systématique fondée sur l'entretien régulier, les patrouilles routières et l'entretien préventif.

Réponse de la direction

Opérations de surface : La direction est d'accord avec cette recommandation et la restructuration est déjà en cours. On prévoit qu'elle sera terminée au quatrième trimestre de 2007.

Services de technologie de l'information (STI) : La direction est d'accord avec cette recommandation. En collaboration avec Services et Travaux publics, les STI peuvent modifier et mettre en place des bons de travail, des périodes d'entretien préventif et d'autres fonctions pour faciliter la planification, comme le décrit la vérification. L'évaluation du temps et des coûts nécessaires à la mise en œuvre de ces pratiques sera entreprise dans le premier trimestre de 2008.

Recommandation 9

Que la DOS, les STI et le Centre d'appels 3-1-1 collaborent en vue d'améliorer la capacité du Centre d'appels et du système connexe afin de faciliter le travail du personnel de la DOS qui répond aux notifications.

Réponse de la direction

Opérations de surface : La direction est d'accord avec cette recommandation, dont la mise en œuvre est déjà en cours. Le processus d'enquête et de notification fera l'objet d'une restructuration, de concert avec le personnel du Centre d'appels 3-1-1 et des STI, dans le quatrième trimestre de 2007. Jusqu'à ce que les mesures découlant de la restructuration soient entièrement mises en œuvre, on a affecté un commis aux opérations à des tâches visant à faciliter les notifications, le traitement et le suivi.

De plus, on prend des mesures pour fournir au public et à d'autres intervenants de meilleurs renseignements afin de répondre de façon proactive aux demandes de services et de renseignements. Parmi ces mesures proactives mentionnons les suivantes : offrir une formation générale sur les services des Opérations de surface à tout le personnel du Centre du service à la clientèle; assurer une formation spécialisée aux « promoteurs de la vie rurale » du Centre d'appels sur des points d'intérêt pour la communauté rurale; mettre à jour et améliorer l'information présentée sur le site Web de la Ville et mettre en place un service d'alerte électronique pour informer, par courriel, les abonnés au service des interdictions de stationnement hivernal.

Services à la clientèle et de l'information au public : La direction est d'accord avec cette recommandation. Elle continuera de collaborer avec les bureaux des

conseillers afin de leur demander d'utiliser le service 3-1-1 pour acheminer les demandes de services à tous les services des opérations.

Services de technologie de l'information : La direction est d'accord avec cette recommandation. En collaboration avec Services et Travaux publics et le Centre d'appels 3-1-1, les STI peuvent améliorer et renforcer l'intégration et l'échange/le transfert des données entre la section des Demandes de services et le système SAP, à un coût estimé à 450 000 \$. L'analyse de rentabilisation de ce projet sera présentée au programme d'évaluation de la valeur et on la classera par ordre de priorité avec les autres exigences en matière de TI de la Ville. On prévoit pouvoir entreprendre ce projet dans le premier trimestre de 2008.

Recommandation 10

Que les unités de rendement soient remaniés pour qu'il soit possible de mesurer les aspects quantitatifs que la direction devrait surveiller en vue de respecter les pratiques exemplaires de l'industrie.

Réponse de la direction

La direction est d'accord avec cette recommandation, et le remaniement est déjà en cours.

Les unités de rendement sont actualisées dans le cadre d'une initiative globale de planification des opérations. On est à modifier des rapports financiers en vue de rendre compte des unités du rendement par activité. La mise en place est prévue au cours du quatrième trimestre de 2007.

Recommandation 11

Que pour l'année 2007 un budget extrêmement simplifié soit élaboré pour la Direction. Le budget devrait être établi de façon ascendante plutôt que de façon descendante, et il devrait porter principalement sur l'information dont les gestionnaires ont besoin pour prendre des décisions financières.

Réponse de la direction

Opérations de surface : La direction est d'accord avec cette recommandation. La simplification des rapports sur la gestion est en cours. On a terminé certaines analyses ascendantes; toutefois, la budgétisation ascendante complète est impossible tant que les fonctions de planification opérationnelle ne sont pas mises en vigueur. Elles le seront au quatrième trimestre de 2007.

Services financiers : La direction est d'accord avec cette recommandation. Le budget 2007 sera élaboré de façon suffisamment détaillée pour refléter la structure de prise de décisions de l'organisation et il sera résumé pour la présentation du budget de la Ville. La vérification a indiqué qu'il fallait donner plus de détails au sujet des opérations de la DOS. On a entrepris des changements en 2006 par l'entremise de

l'IHS de la Direction en vue d'élaborer et de surveiller le budget à l'aide du Système informatisé de gestion de l'entretien par niveau de secteur et d'activité, système que peuvent consulter les superviseurs, les gestionnaires de secteur et les directeurs.

Recommandation 12

Que le budget de la DOS ne soit pas majoré jusqu'à ce que celle-ci comprenne bien sa situation financière.

Réponse de la direction

La direction n'est pas d'accord avec cette recommandation.

Le budget ainsi que les opérations et services de la Direction seront examinés de la façon prescrite par le Conseil, laquelle sera définie dans les orientations budgétaires.

Recommandation 13

Que le budget de la DOS ne soit pas majoré pendant que la Direction améliore la façon dont elle formule ses demandes budgétaires et réoriente son financement actuel vers les programmes dotés d'un plan stratégique et d'un budget connexe précis, plus particulièrement vers le programme des services forestiers.

Réponse de la direction

La direction n'est pas d'accord avec cette recommandation.

Le budget ainsi que les opérations et services de la Direction seront examinés de la façon prescrite par le Conseil, laquelle sera définie dans les orientations budgétaires.

Recommandation 14

Que l'ensemble du processus lié aux formulaires d'activité et à la saisie de données soit remanié, afin que l'on puisse retrouver dans le système SAP tous les renseignements nécessaires concernant les finances et les salaires.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Le formulaire d'activité fera l'objet d'un examen dans le cadre de l'exercice de gestion du rendement de l'IHS au cours du premier trimestre de 2008. Lorsque le cadre de mesure et de gestion du rendement de la Direction sera élaboré, on remaniera le formulaire d'activité et les processus connexes de collecte et de saisie de données pour s'assurer que les renseignements nécessaires sont saisis et entrés de façon efficace. Dans l'immédiat, pour mieux utiliser les données qu'on peut déjà entrer dans le système, la Direction y intègre les réalisations en signalant un certain nombre de rapports opérationnels clés pour améliorer les renseignements disponibles nécessaires à la prise de décisions opérationnelles.

Recommandation 15

Que les employés disposent de l'équipement nécessaire pour consigner de façon électronique leurs niveaux de rendement pour éviter les frais de déplacement et le dédoublement des efforts; et que des mesures de contrôle visant tous les employés soient intégrées au système informatique pour que le superviseur du site et le directeur de district puissent vérifier les heures de travail, etc.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Dans l'immédiat, on a réparti le personnel administratif dans les bureaux sur le terrain pour pouvoir aider plus facilement les personnes qui en ont besoin. On réduit ainsi l'excédent de personnel et on élimine une grande partie des frais de déplacement associés à la remise des formulaires d'activité au quartier général. Des mesures de contrôle existent déjà dans le système pour s'assurer que les superviseurs approuvent tous les formulaires d'activité. Dans le cadre du remaniement du formulaire d'activité mentionné à la réponse 15, on envisagera à l'avenir la mise en place de moyens électroniques avec des mesures de contrôle appropriées afin de permettre aux employés sur le terrain d'entrer leurs heures de travail et leur rendement.

Recommandation 16

Que, parallèlement à l'établissement du système budgétaire simplifié proposé, que les superviseurs de zone reçoivent des rapports financiers actuels et exacts indiquant les dépenses réelles ainsi que les montants budgétés.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Actuellement, le rapport destiné aux superviseurs ne comprend que les coûts. On est à le mettre à jour afin d'y inclure les chiffres figurant dans le budget. La mise à jour sera terminée d'ici le troisième trimestre de 2007.

Recommandation 17

Qu'on indique clairement si les compressions proposées au Conseil durant les discussions sur le budget auront des répercussions sur les niveaux de services/normes de la Ville et/ou l'état de l'infrastructure (p. ex., détérioration en raison d'un manque d'entretien).

Réponse de la direction

Services d'infrastructure : La direction est d'accord avec cette recommandation.

Dans le Plan financier à long terme, les niveaux d'investissement indiqués visent à assurer la préservation de l'infrastructure de la Ville. Dans le cas des routes, le niveau d'investissement défini dans le Plan financier à long terme vise à maintenir

l'ensemble du réseau routier dans son état actuel (c.-à-d. Qu'on doit renouveler la couche de surface de 20 p. 100 des routes ou les reconstruire). Lorsque les niveaux budgétaires approuvés sont inférieurs aux besoins définis dans le Plan financier à long terme, comme ce fut le cas au cours des années précédentes, il s'ensuit, avec le temps, une plus grande détérioration de l'état de l'ensemble du réseau et des pressions accrues sur le budget de fonctionnement.

Dans le cadre du Plan directeur municipal, la Direction des services d'infrastructure est tenue de définir les niveaux de service pour l'infrastructure municipale. Lorsque cet exercice sera terminé en 2007-2008, on pourra établir des liens plus directs entre les niveaux de financement et les répercussions sur les niveaux de service.

Recommandation 18

Que le Conseil soit informé de l'augmentation annuelle nécessaire des coûts de fonctionnement ou des économies prévues lorsqu'il examine des décisions relatives aux immobilisations.

Réponse de la direction

Services d'infrastructure : La direction est d'accord avec cette recommandation.

L'expansion du réseau de transport a des répercussions importantes sur les coûts de fonctionnement. La Direction des services d'infrastructure recueille les renseignements sur la croissance et les communique à la DOS pour qu'on en tienne compte dans le processus budgétaire annuel.

Recommandation 19

Que la DOS et les Services aux employés, travaillent ensemble à l'élaboration de rapports mensuels réguliers pour faciliter la gestion du personnel de la DOS.

Réponse de la direction

Opérations de surface : La direction est d'accord avec cette recommandation et des efforts sont déjà entrepris dans ce sens.

L'embauche d'un coordonnateur de la dotation, découlant de l'IHS, facilitera la mise en œuvre de ces mesures dans le quatrième trimestre de 2007.

Services aux employés : Les Services aux employés rencontreront le personnel des Opérations de surface pour étudier les rapports sur les ressources humaines déjà disponibles avec le système SAP-RH pour faciliter la gestion des ressources humaines. En outre, les Services aux employés s'assureront que la direction des Opérations de surface est capable d'accéder aux renseignements sur les ressources humaines nécessaires pour gérer son personnel.

Recommandation 20

Que la DOS élabore et mette en œuvre des politiques et procédures normalisées pour réduire le recours « systématique » aux heures supplémentaires et le travail sur demande des superviseurs et coordonnateurs de l'entretien. On devrait envisager de modifier l'heure de commencement et de fin des quarts de travail ainsi que de partager le travail sur demande entre deux ou plusieurs dépôts.

Réponse de la direction

La direction est d'accord avec cette recommandation et a déjà entrepris des initiatives en ce sens.

Par exemple, en ce qui concerne la Division des parcs, chaque gestionnaire de secteur désigne un superviseur qui sera disponible sur appel pour répondre aux urgences après les heures normales de travail dans l'ensemble de son district. On ne désigne pas un employé sur appel dans chaque unité de travail. Le superviseur évalue aussi s'il s'agit vraiment d'une urgence ou si on peut attendre au prochain jour ouvrable pour régler le problème, afin d'éviter les coûts liés aux heures supplémentaires engendrées par une intervention. On fait peu d'heures supplémentaires obligatoires dans la Direction.

La Division des routes a également adopté des directives concernant le non-paiement des heures supplémentaires les sixième et septième jours de travail pendant le quart de travail principal des services offerts 24 heures sur 24 et sept jours sur sept, ce qui a permis de réaliser des économies de 165 000 \$. De plus, on a modifié l'heure de commencement du quart de nuit, fixée maintenant à 22 h 30; ainsi, l'horaire régulier s'applique durant l'heure de pointe du matin, réduisant le coût des heures supplémentaires. La Direction continue de mettre en œuvre de nouvelles initiatives, qui seront achevées dans le quatrième trimestre de 2007.

Recommandation 21

Que la DOS élabore et mette en œuvre des politiques et procédures normalisées pour réduire le recours « systématique » aux heures supplémentaires et le travail sur demande.

Réponse de la direction

La direction est d'accord avec cette recommandation.

De nouvelles politiques et procédures, telles que le réaménagement des horaires de travail en vue d'assurer un service en tout temps au centre-ville et la modification du commencement des quarts de travail, ont été mises en œuvre le 15 novembre 2005 pour la saison hivernale 2006-2007.

Ces mesures ont déjà entraîné des réductions de 200 000 \$ des coûts liés aux heures supplémentaires. La Direction continue d'élaborer et de mettre en place des politiques et des procédures visant à réduire les coûts occasionnés par les heures

supplémentaires et le travail sur l'ébauche d'appel. La Direction gère les heures supplémentaires conformément à la politique générale sur les heures supplémentaires.

Recommandation 22

Que la DOS examine des horaires de travail novateurs pour optimiser les coûts liés au personnel et la productivité de celui-ci, notamment l'instauration de quarts de travail de sept jours, de trois quarts de travail par jour, d'horaires décalés, le partage du travail sur appel, etc.

Réponse de la direction

La direction est d'accord avec cette recommandation, qu'elle a déjà mise en œuvre. On est à préciser l'évaluation et la mise en application du calendrier.

Recommandation 23

Que la DOS évalue si elle a le nombre d'ETP qui convient le mieux pour optimiser l'utilisation des heures supplémentaires et les salaires.

Réponse de la direction

La direction est d'accord avec cette recommandation.

L'initiative de planification opérationnelle prévue pour le premier trimestre de 2008 permettra à la Direction de mieux quantifier ses besoins en ressources pour répondre aux demandes de services. On comparera le temps de travail des employés, le recours aux heures supplémentaires, les possibilités d'amélioration de la productivité, les combinaisons en matière de passations de marché et d'autres options de prestation de services pour déterminer le meilleur effectif d'ETP pour la Direction.

Recommandation 24

Que la DOS rationalise et réduise les niveaux de gestionnaire de la structure organisationnelle et qu'elle réaffecte le personnel excédentaire dans d'autres secteurs mentionnés dans le présent rapport (p. ex., les patrouilles routières).

Réponse de la direction

La direction est d'accord avec cette recommandation, qu'elle a déjà commencé à mettre en œuvre.

Dans le cadre de l'Initiative d'harmonisation stratégique, on a entrepris un projet qui fait partie des attributions du gestionnaire chargé de la transition, qui comportait la mise sur pied d'une équipe responsable d'examiner l'harmonisation des tâches de supervision et le nombre d'unités opérationnelles. Des travaux sont actuellement en cours et on prévoit les terminer pour le quatrième trimestre de 2007.

Recommandation-25

Que la DOS calcule combien d'années-personnes sont perdues en raison de la politique de congés compensatoires et qu'elle détermine si elle a suffisamment d'employés à temps plein, à temps partiel et temporaires pour optimiser les coûts compte tenu des congés compensatoires et des vacances.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Le système corporatif SAP permet de connaître le nombre de congés compensatoires qui s'accumulent annuellement. On estime que l'analyse sera achevée d'ici le premier trimestre de 2008. Aucune disposition n'est prévue pour le remplacement du personnel durant les absences de courte durée. La Direction n'a recours à du personnel temporaire, à des étudiants ou à du personnel à contrat pour compléter l'effectif à plein temps.

Recommandation 26

Que la DOS planifie les vacances pour qu'elles tombent en dehors des saisons de forte activité.

Réponse de la direction

La direction est d'accord avec cette recommandation, à laquelle elle a déjà donné suite.

Les vacances doivent se prendre à un moment mutuellement convenu, et tous les efforts sont faits pour qu'elles tombent en dehors des périodes de forte activité. Il faut reconnaître que la plupart des salariés affectés aux opérations de surface remplissent plusieurs tâches différentes et ont reçu une formation dans plusieurs domaines de manière à avoir la plus grande souplesse possible dans les périodes de forte activité. Par exemple, certains employés travaillent sur la route, aux opérations de déblaiement, pendant l'hiver, et sont affectés à la circulation ou à l'entretien des parcs durant l'été. De ce fait, ces employés se retrouvent très rarement en période de faible activité. En général, les unités de travail s'assurent de limiter le plus possible le nombre d'employés qui sont en vacances à un certain moment pour garantir que les travaux requis pourront tout de même être exécutés. En outre, au plus fort de la saison des vacances, c'est-à-dire durant l'été, on a recours à des étudiants et à du personnel à contrat pour compléter le personnel à plein temps.

Recommandation 27

Que les cadres supérieurs, les superviseurs de zone et les coordonnateurs de l'entretien reçoivent une formation supplémentaire sur les compétences de base en gestion et soient plus actifs au sein des associations du secteur (par exemple l'*Ontario Good Roads Association*), cela afin de favoriser une meilleure connaissance des pratiques exemplaires de l'industrie.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Dans le cadre du projet Investir dans les gens, qui fait partie du Programme de l'initiative d'harmonisation stratégique, on a mis sur pied un programme de formation à l'intention des chefs d'équipe, des coordonnateurs de l'entretien et des superviseurs. Les Relations de travail, les Ressources humaines et le Centre d'apprentissage de la Ville examinent actuellement les lignes directrices pour l'inscription et le contenu du cours, qui devraient être prêtes au quatrième trimestre de 2007.

La Direction est constamment à la recherche de nouvelles initiatives et possibilités de formation du personnel. À l'échelon de la haute direction, l'équipe de gestion a prévu un projet de planification de la relève dans le Plan de travail de 2007 de la Direction.

Recommandation 28

Qu'on rétablisse un budget de formation suffisant pour assurer le maintien d'une main-d'œuvre qualifiée.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Au nombre des initiatives en cours figure, par exemple, l'élaboration d'un Programme de formation des chefs d'équipe, des contremaîtres et des superviseurs, qui servira de mécanisme de planification de la relève. On assurera ainsi le transfert de la mémoire organisationnelle et de l'expérience acquise sur le terrain aux employés subalternes que l'on prépare actuellement à remplacer les superviseurs qui prendront leur retraite. On préparera des descriptions de travail qui énonceront les critères de participation au programme de formation et reconnaîtront les besoins de plus en plus importants au regard des connaissances techniques, de la responsabilisation financière, de la planification opérationnelle et de la capacité de régler des questions de ressources humaines.

On met actuellement sur pied des programmes de formation pour chacun des échelons de la structure de supervision, en veillant à ce qu'ils correspondent aux fonctions énoncées dans les descriptions de travail. Les cours se donnent à la fois dans le cadre d'initiatives internes de formation organisationnelle et par l'entremise d'experts ou d'organismes externes qui se spécialisent dans les activités liées à la santé et la sécurité ou à l'entretien des routes, des parcs et des forêts. Les participants aux programmes de formation seront jumelés à un superviseur ou gestionnaire chevronné qui surveillera leur rendement et agira comme mentor auprès d'eux en ce qui a trait aux attentes associées à chacun des échelons dans la structure.

Chaque candidat qui participera au programme de formation devra compléter toutes les phases de la formation et montrer qu'il a la capacité de mettre l'apprentissage en pratique avant qu'on envisage de le promouvoir à l'échelon de supervision suivant. On s'assurera ainsi que les promotions se fondent sur le mérite et sur une capacité éprouvée de satisfaire aux exigences de complexité croissante qui sont imposées aux superviseurs sur le terrain.

On a également entrepris des activités de formation au niveau de la gestion en collaboration avec des organismes comme l'OGRA et l'APWA. Les priorités en matière de formation seront précisées dans le budget de 2008.

Recommandation 29

Que les ressources de la Direction soient réaffectées en vue d'un rétablissement des patrouilles routières en conformité avec les normes de la Ville.

Réponse de la direction

La direction est d'accord en principe avec cette recommandation.

En mai 2003, le Conseil a été saisi d'un rapport recommandant l'attribution de 8 ETP pour permettre aux Services opérationnels de renforcer la capacité de patrouille routière dans le but de respecter les lignes directrices à cet égard. Cependant, cette recommandation n'a pas été approuvée. Qui plus est, dans le cadre des compressions qui ont été imposées en 2004 à la suite de l'Examen général des programmes, on a amputé d'une somme de 1,042 M\$ le budget de la Direction des opérations de surface consacré aux patrouilles routières dans les rues collectrices et les rues résidentielles.

Recommandation 30

Que la Direction élabore un règlement sur les arbres publics et un règlement sur les pratiques exemplaires de gestion (forêts communautaires).

Réponse de la direction

La direction est d'accord avec cette recommandation.

Le Règlement 2006-279 sur la protection des arbres et des aires naturelles de la ville a été approuvé en juillet 2006 et a pris effet le 1^{er} septembre 2006. Un Plan de gestion des ressources pour le South March Highlands est en cours d'élaboration en 2007, et on a déterminé quels plans sur 20 ans devront être mis à jour par la suite, à mesure qu'ils arriveront à échéance (forêt Marlborough en 2010, p. ex.).

Recommandation 31

Que le groupe des Services forestiers élabore des buts à long terme et mette en œuvre un Plan de gestion des forêts urbaines, en se donnant pour objectif de remplacer les arbres plus anciens dans la ville par de nouveaux arbres d'espèces résistantes aux maladies et aux ravageurs.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Le Conseil a approuvé en octobre 2006 une Stratégie quinquennale d'entretien des arbres et des forêts, dont le financement a été reporté jusqu'à l'adoption du Plan financier à long terme de 2008. L'ébranchage échelonné sur le cycle de vie, entrepris en 2006, se poursuivra en 2007 dans les secteurs hautement prioritaires, comme ceux où il y a présence d'argile marine sensible, pour assurer la survie des arbres existants. La Ville poursuivra ses programmes de plantation en vue de remplacer les arbres qui arrivent à la fin de leur cycle de vie par des arbres d'espèces appropriées et adaptées au lieu de plantation, en attendant que les priorités soient établies et les budgets approuvés.

Recommandation 32

Que la Direction se dote d'un système de gestion des arbres, y compris d'un inventaire exhaustif des arbres, en s'assurant que le système offre des fonctions adéquates de saisie, de stockage et de consultation de données (pour la planification de la gestion forestière) ainsi que de production de rapports, y compris, dans la mesure du possible, une fonction de représentation cartographique reliée au SIG général de l'organisation.

Réponse de la direction

La direction est d'accord avec cette recommandation, dont la mise en œuvre a déjà débuté.

La Stratégie quinquennale d'entretien des arbres et des forêts, qui est maintenant achevée et qui a reçu l'approbation du Conseil, reconnaît la nécessité de réaliser un inventaire exact des arbres et d'assurer la tenue à jour de l'information ainsi recueillie. La Stratégie indique les ressources requises en personnel et en équipement, dont elle estime le coût à 575 000 \$ environ. Les travaux seront entrepris, suivant un ordre de priorité (zones centrales, arbres en bordure des boisés et ravins dans les zones suburbaines) en 2007.

Recommandation 33

Que la Ville étudie les options qui s'offrent pour regrouper ses activités d'élagage des arbres afin de s'assurer que l'élagage visant à dégager les lignes de transport d'électricité ne réduit pas l'espérance de vie des arbres.

Réponse de la direction

La direction est d'accord avec cette recommandation. Elle a déjà commencé à la mettre en œuvre.

On a tenu une première réunion au cours de laquelle on a examiné les opérations, les rôles et les responsabilités. Les parties ont échangé des spécifications arboricoles, pour observations et examen du contenu sous l'aspect professionnel.

En 2007, le personnel de direction poursuivra l'élaboration de documents techniques communs. Les employés chargés des opérations à la Ville collaboreront avec leurs homologues de manière à assurer une uniformité dans leurs activités respectives d'ébranchage et à étudier de nouvelles initiatives comme la collaboration dans la plantation des arbres de remplacement.

Recommandation 34

Que le groupe des Services forestiers élabore des lignes directrices et tiende une campagne de sensibilisation du public à l'intention des promoteurs, du public et des autres administrations municipales en vue de promouvoir la plantation de nouveaux arbres d'une espèce mieux adaptée aux conditions de sol et au climat locaux.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Le plan de travail de 2007 des Services forestiers prévoit un renforcement des communications internes et externes, le délai d'achèvement ayant été fixé au quatrième trimestre de 2007. On a déterminé les publics cibles, à savoir les Services des règlements municipaux, le personnel des Services d'infrastructure, l'Approbation des demandes d'aménagement (public interne) ainsi que les associations communautaires locales et les groupes d'intérêts du secteur forestier (public externe). On rassemblera l'information technique sur l'arboriculture et la foresterie, et on en fera la mise en forme en parallèle avec d'autres initiatives de la Direction des opérations de surface.

Recommandation-35

Que les gestionnaires du parc automobile examinent leurs pratiques en matière d'entretien préventif et d'entreposage hors saison en vue d'optimiser la durée de vie de l'équipement.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Les travaux ont déjà débuté dans le cadre du plan de rationalisation des installations adopté en vertu de l'Initiation d'harmonisation stratégique. L'équipe de mise en oeuvre inclura des représentants des Services du parc automobile, qui compareront les effets respectifs de l'entreposage intérieur et de l'entreposage extérieur, plus particulièrement pendant l'hiver. Les Directions uniront leurs efforts au troisième trimestre de 2007 pour s'assurer que leurs responsabilités respectives garantissent l'optimisation de la durée de vie utile de l'équipement.

Recommandation 36

Que la Direction des opérations de surface déterminent les ressources particulières à affecter à l'application des normes minimales régissant les appels d'offres et qu'elles coordonnent et surveillent les activités d'entretien et de remplacement des véhicules, et que ces ressources humaines reçoivent une formation concernant les pratique actuellement dans l'industrie et norme en vigueur au gouvernement en ce qui a trait à l'exploitation et à l'achat de véhicules et d'équipements.

Réponse de la direction

Opérations de surface: La direction est d'accord avec une partie de cette recommandation.

La Direction des opérations de surface a désigné spécialement, au profit du parc auto, un poste dont le titulaire agira comme personne-ressource unique en ce qui a trait aux exigences en matière d'acquisition. Le titulaire du poste travaillera en collaboration avec les Services du parc auto à l'élaboration d'une stratégie de gestion du parc auto.

Services du parc automobile: En tant que Centre d'expertise, la Direction des services du parc automobile est responsable de la planification, de l'acquisition, de l'aliénation et du remplacement des véhicules. Comme l'indique l'Entente de niveau de service (ENS), l'exploitant (Opérations de surface) a la responsabilité d'établir les exigences opérationnelles qui précisent l'utilisation de l'équipement requis. Les Services du parc automobile se servent de cette information pour élaborer les spécifications à appliquer afin de satisfaire à ces exigences, en se fondant sur le Règlement de la Ville d'Ottawa relatif aux achats. Le rôle des Services du parc automobile consiste à comprendre les besoins des clients et à fournir à ces derniers l'équipement requis pour satisfaire aux besoins opérationnels minimaux d'une manière efficiente.

La direction n'est pas d'accord avec la partie de cette recommandation selon laquelle on devrait dispenser au personnel des Opérations de surface une formation sur les spécifications, car cela ferait double emploi avec ce qui se fait déjà à la Ville et ne concorderait pas avec le modèle des centres d'expertise et l'ENS. Cette recommandation indique que la Direction des opérations de surface devrait être responsable de secteurs d'activité qui ne relèvent pas de sa compétence.

Recommandation 37

Que les carrosseries des camions soient soumises à un programme de restauration suivant lequel on les inspecterait, sablerait et peindrait lorsque des traces de rouille apparaissent.

Réponse de la direction

La direction n'est pas d'accord avec cette recommandation.

Les Services du parc automobile ne se livrent à aucune réparation esthétique de la rouille parce que cela n'a aucune influence sur le fonctionnement des véhicules. L'état des carrosseries des véhicules fait l'objet d'examen dans le cadre du programme d'inspection annuelle. On procède à des réparations structurelles lorsqu'un véhicule n'est pas conforme aux exigences du ministère des Transports. On répare normalement la rouille quand on détermine qu'elle aura pour effet de raccourcir la durée de vie utile du véhicule. On n'effectue pas de réparations esthétiques de manière courante en raison des coûts supplémentaires qui y sont associés.

Recommandation 38

Qu'on lave et lubrifie les épanduses de sel et de sable (et autres gros équipements d'usage saisonnier) pour éviter la corrosion des contacts, des composants électroniques, des convoyeurs et des pièces mobiles, pendant les périodes où ils ne sont pas utilisés.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Le lavage, la lubrification et l'entreposage hors saison constituent des tâches opérationnelles qui font partie des activités régulières de changement de saison.

Recommandation 39

Qu'on envisage de recourir à l'entreposage intérieur des équipements utilisés pendant une seule saison par année afin de les soustraire aux éléments jusqu'à ce qu'on en ait besoin, ou qu'on prenne d'autres mesures pour assurer un entreposage sûr de l'équipement.

Réponse de la direction

La direction est d'accord avec cette recommandation.

Cela sera envisagé dans le cadre du projet de rationalisation des installations qui est actuellement réalisé en vertu de l'Initiative d'harmonisation stratégique et doit prendre fin au troisième trimestre de 2007.

Conclusion

La Direction devra modifier ses façons de faire. Plutôt que de fonctionner avec des centres localisés indépendants axés sur la réaction, elle devra se doter de centres unifiés complémentaires qui agiront de manière proactive. Il faut uniformiser les opérations, en veillant à ce qu'elles soient conformes aux pratiques exemplaires en vigueur dans l'industrie. Il ne s'agit pas d'adopter les technologies les plus avancées simplement pour le principe, mais plutôt d'appliquer dans le cadre des opérations l'approche la plus efficace, la plus efficiente et la plus économique qui soit afin de concrétiser la vision de la Ville énoncée dans les documents d'orientation comme la Stratégie environnementale

Ottawa 20/20 et les politiques opérationnelles liées par exemple aux normes d'entretien des routes.

Remerciement

Nous sommes reconnaissants à la direction pour la collaboration et l'aide qu'elle a apportées à l'équipe de vérification.

1 BACKGROUND

The Audit of the City of Ottawa's Surface Operations was included in the City Auditor General's 2006 audit plan, which was presented to Council on December 15, 2004.

1.1 Audit Scope

The scope of this audit was to conduct a thorough audit of all aspects of the City of Ottawa's Surface Operations functions for summer operations including road maintenance, parks and sports fields maintenance, and forestry services with the exception of winter services for road and sidewalk maintenance. Winter services were not initially within the scope of this audit, however, as the audit proceeded, some observations related to winter services were documented and are included in this report.

The scope of the audit included an examination of the Branch to assess whether the objectives, which have been set for the Branch, are being achieved. The following four areas were identified:

1. **Compliance** – to determine if the Branch conforms to all laws and regulations that govern its operations, including all relevant legislation and spending authorities contained in the annual budget as well as City and Provincial minimum maintenance standards.
2. **Financial Management** – to examine the financial results of operations against short and long-term plans and to determine the reliability of financial systems.
3. **Planning** – to examine management practices across the Branch to assess the impact of planning (daily, monthly, annual, long-term, integration with capital plans) on the economy, efficiency and effectiveness of current operations.
4. **Performance (value-for-money)** – to examine management practices, goals and objectives, controls and monitoring and reporting systems across the Branch to assess the economy, efficiency and effectiveness of current operations.

Surface Operations Branch - Objectives

Ensure safe, efficient movement of people and goods.

Ensure responsible management and preservation of community investment in public works infrastructure assets by conducting regular maintenance programs.

Perform maintenance and emergency activities to ensure safe, dependable and clear roads, sidewalks, and right-of-ways.

Ensure the preservation, protection and enhancement of parks, green spaces and forest cover for public use.

Enhance forest cover through tree planning in accordance with the City's Official Plan.

1.2 Audit Objectives

The objectives of the audit were to provide an independent and objective assessment:

- To determine whether appropriate standards exist, are communicated to staff, maintained, monitored and enforced;

- To ensure that appropriate processes are in place to plan daily, monthly, annual, long-term and capital activities in a manner, which provides for efficient, effective and economic service delivery;
- To ensure that appropriate financial systems are in place to budget, record, track and monitor all expenditures within the Branch in an efficient, effective and economical manner, which facilitates service delivery; and
- To determine if the City receives value-for-money for services performed.

2 SURFACE OPERATIONS OVERVIEW

The City has jurisdiction and manages a significant number of properties and facilities including 5,500 km of roads, 37 km of transitway, 1,500 km of sidewalks and pathways, 675 sports fields/ball diamonds, 200,000 trees within City's right-of-way, and 890 parks covering 3,220 ha.

2.1 Mandate

The Surface Operations Branch primary role is to carry out the maintenance, operations and stewardship of the surface-related assets within the City. Other operating groups have been charged with the responsibility to maintain assets such as vehicle and equipment assets, and facility assets.

There are three basic tenets for maintenance and asset management associated with all the activities carried out by Branch staff. These form the foundation of this audit and are linked to each of the report recommendations. They include:

- Preservation of capital assets belonging to the community;
- Safety of the community when using municipal properties; and
- Quality of life.

Good management of these areas requires delivering the services efficiently and cost effectively. Municipal managers must always strive to achieve best value for the community and this requires good financial planning and reporting

Table 1: Surface Operations Branch - Primary Service Areas**1. Roads, Rights-of-Way and Sidewalks**

Hard Surface and Roadside Maintenance – This service area provides safe, passable, unobstructed road surfaces, and removes snow from roads in a cost effective, environmentally friendly manner. They also provide safe, clean boulevards, medians and roadside ditches.

Sidewalk and Pathway Maintenance – This service area provides safe, passable, unobstructed walking surfaces in the winter. As well, they provide safe, defect free surfaces for pedestrians, cyclists and other users. They also repair and resurface the sidewalks and pathways to extend the useful life of pedestrian assets.

2. Parks and Sport Field Maintenance

Parks and Open Space Maintenance – This service area ensures that more than 2,770 hectares of parkland in more than 845 sites remains clean and safe, and that more than 1,400 play structures remain safe and useable.

Sports Field Maintenance – This service area ensures that more than 660 city sports fields/ball diamonds are safe, playable and available for recreational use. They attempt to minimize instances when fields are unplayable and coordinate these instances with user groups through Community and Protective Services. In addition, they coordinate replacement fields with facilities and property management services, user groups and Community and Protective Services. They also maintain the health of the fields through integrated turf management.

3. Forestry Services

Tree Maintenance Planting and Removal – This service area is responsible for all activities relating to:

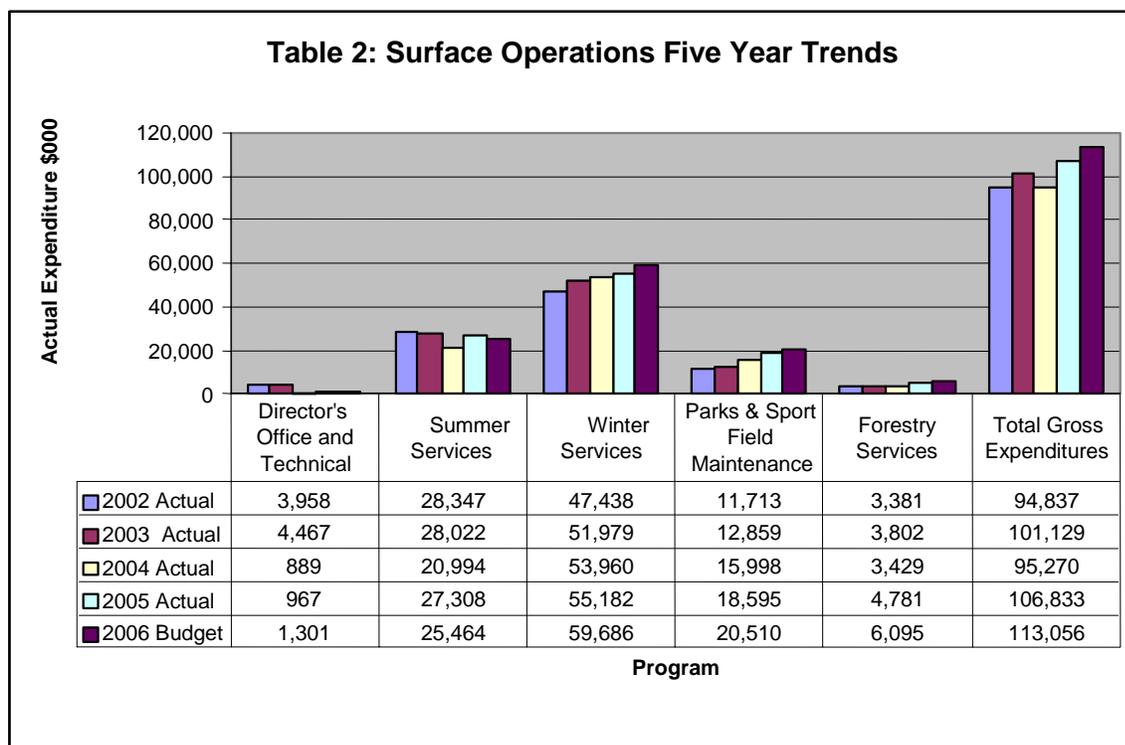
- Planting, watering and fertilizing replacement trees on roadsides and parks.
- Lifecycle maintenance of trees to improve tree health (removing dead, dangerous and diseased trees).
- Eliminating low limbs, sightline problems and obstructions of traffic signs and street lighting.
- Inspecting trees (diagnosis, safety, tree health, requests for service, contractor and utility works, new subdivision tree planting).
- Reviewing tree preservation and protection plans in accordance with City policies.
- Providing information and advice to public and community groups on arboreal issues.

Community Forests – The five key responsibilities of this service area include:

- Protecting and maintaining the integrity of the City's eight community forests
- Establishing & maintaining partnerships with outside groups to assist with maintenance & management activities.
- Managing use permits.
- Ensuring a reasonable degree of access and safety for the public.
- Managing forest resources responsibly, particularly those designated as Areas of Natural and Significant Interest.

2.2 Expenditures

In the past five years, the Surface Operations Branch actual gross expenditures have grown by almost 20% from \$95 million in 2002 to \$113 million budgeted in 2006. This is equivalent to an average annual increase of almost 5% per year. These increases occurred, post-amalgamation, at a time when significant change management was to be occurring to establish a new City-wide standard for the care of roads, sidewalks, parks and urban and rural municipal forests. More detailed review reveals that increases were allocated to Winter Roads, \$12 million; to Parks and Sports Fields, \$9 million; to Forestry, \$3 million; while reductions occurred in both the Director's Office and Summer Services of approximately \$3 million each. These changes are illustrated in Table 2.



These financial trends, considered along with the remainder of audit findings, point to an operation that has been subject to significant funding increases and realignment of services (summer versus winter operations) without substantive change to mandate and with few financial tracking tools or management capabilities. Council's involvement in directing Branch financial operations over this time frame is evidenced by the approval of significant additional financial resources annually to an area of the City's operations which was not meeting public expectations.

2.3 Staffing

In 2006, Surface Operations Branch had 824 full-time equivalents (FTEs). Overtime and on-call costs are high (in excess of \$6 million³ per annum. On average, Branch employees earn more than \$8,000 in overtime and on-call time annually. Most staff have a relatively high level of seniority.

³ Overtime costs alone for 2005, were reported to be \$4.8M with almost 150,000 hours

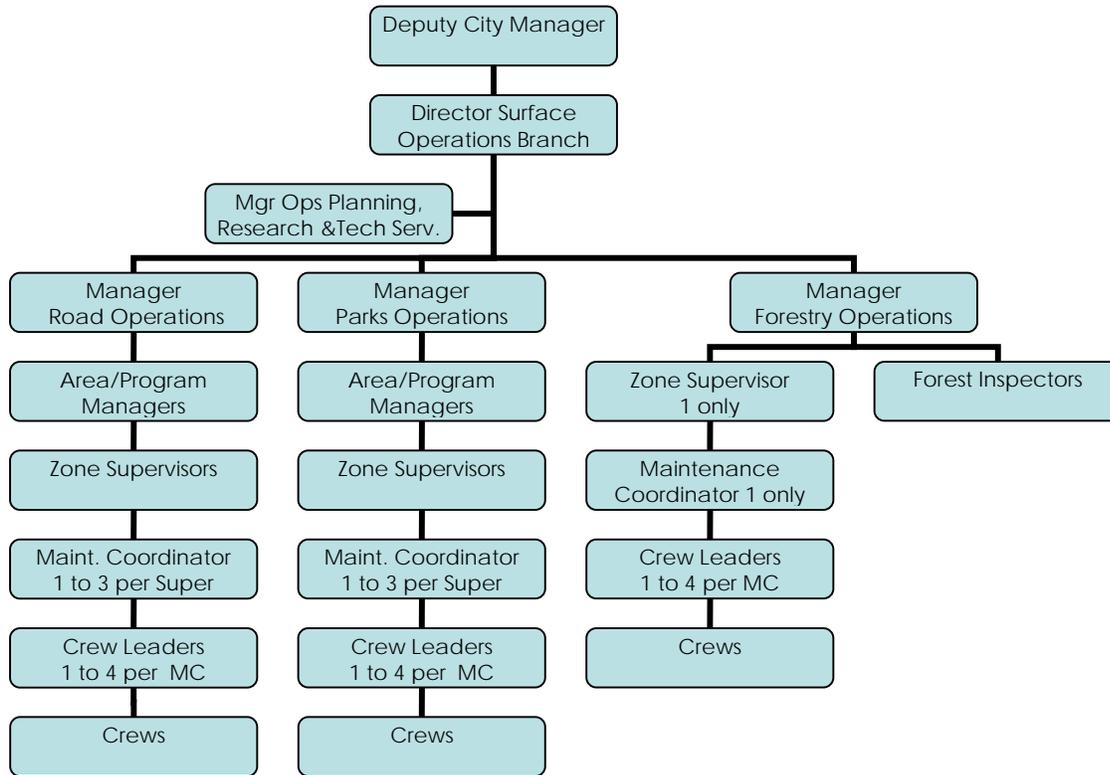


Table 3: Simplified Organization Chart (post SAI)

While, not all yards have the same reporting structure, the above chart presents a fair representation of how most groups operate. Note that the senior level of managers was restructured during the audit based on Strategic Alignment Initiative (SAI) boundary redefinition. At the commencement of the audit, the groups were divided into two other groups: Urban Roads, Suburban/Rural Roads and Forestry/Parks. The reporting structure below this level remained essentially the same.

2.4 Existing Situation and Recent Initiatives

The Surface Operations Branch has experienced significant changes, challenges and issues since amalgamation. High turnover, labour tension, different cultures, reporting hierarchies, organizational structures and ways of performing tasks, a lack of planning on a daily, monthly and annual basis, insufficient coordination between capital and operating budgets, a lack of financial information down to middle management and supervisory levels and budgets which have lacked scrutiny have all led to a less than effective organization.

During our interviews managers expressed frustration with the lack of accurate, relevant and timely financial and planning information. The combination of amalgamation, several reorganizations, centralization of financial support, Maintenance Management System staff and reduced budgets have all contributed to this situation. The Branch has clearly been operating in a reactive mode since amalgamation; even

budget documents state that in an effort to contain costs they have deliberately moved to a complaint-driven process. This has resulted in false economies and an inefficient approach to maintenance and repairs.

In 2005, Surface Operations Branch took the dramatic step of hiring outside consultants⁴, to assist them to align the Branch with Public Works and Services Department and the City organization as a whole. This initiative, the Strategic Alignment Initiative is still underway. In April 2006, the Branch completed Phase 1 initiatives of the project. This and other recent initiatives are summarized below. It should be noted that, to verify the veracity of the SAI process but not duplicate its objectives, the audit was purposefully designed to review and comment on the program in general. The following SAI summary, drawn directly from the SAI reports, is provided strictly for information and to provide necessary context of these concurrent reviews. Comments on the value of the SAI initiative in addressing problems identified through the audit are addressed within the recommendation section of this report.

2.4.1 Strategic Alignment Initiative (SAI) Scope Definition Document

The Executive Summary of the Strategic Alignment Initiative document states, *“This Definition of Scope report defines the work required over the next two years to align the Surface Operations Branch with Public Works & Services (PWS) and the City organization as a whole. Surface Operations has experienced significant scrutiny, change and challenge as a result of amalgamation and harmonization in the last four years and staff all levels have identified concerns about the health of their organization and their ability to manage its success. Management wants to address these concerns to develop operations effectiveness, public accountability and its alignment with corporate strategy.”*

This report shares work related experiences from managerial staff inside and outside the Branch on organization structure, roles and responsibilities, administrative support, technical support, service delivery boundaries, operations facilities, operations planning, information needs, service request management and resource management. The key problems are fluctuating wage rates for more than 80% of the Surface Operations workforce, the lack of administrative and technical resources in the Branch,

Strategic Alignment Initiative

Significant change and challenge as a result of amalgamation and harmonization in the last 4 years.

Largely functioning as a reactive organization. Staff and management have concerns about operations efficiency and about ability to plan service delivery and control operating costs.

Circumstances are affecting costs, services and morale.

Absenteeism and staff turnover are rising.

Service requests are increasing as ability to respond is decreasing.

Management wants to address these concerns to develop operations effectiveness, public accountability and its alignment with corporate strategy.

The mission of SAI is to “restore Branch capacity to deliver its mandate and become one of the best public sector operations in North America.”

From SOP SAI documents

at

⁴ Total approved expenditures/commitments to date \$700,000. Costs for this project up to the point of the Audit were \$400,000 with an additional \$300,000 approved (CAR) in August 2006.

inadequate financial information to support operations decisions, inconsistencies in organization structure and reporting relationships, and ineffective work planning and service level management.

Over the last two years these problems have seriously undermined managerial effectiveness. The Branch is now functioning as a reactive organization. Management have raised significant concerns about operations efficiency as well as their ability to plan service delivery and control operating costs. Current circumstances are affecting equipment costs, contractor services and morale. Absenteeism and staff turnover are rising. Service requests are increasing as their ability to respond is decreasing. Their inability to meet obligations to other branches is of great concern, which they believe is going to have a downstream effect on operations performance in years to come.

Branch management recognizes the need for change and a stronger alignment with PWS and corporate targets. For Phase 2 of this Strategic Alignment Initiative (SAI) we propose the mission to “restore Branch capacity to deliver its mandate and become one of the best public sector operations in North America”. SAI Phase 2 strategies are defined to support this mission and improve overall ability to manage, decentralize decision-making, strengthen internal business relationships, improve asset life cycle management, become pro-active and address sustainable development requirements.

We defined the scope of action required in terms of 6-Month, 12-Month and Long Term projects. The 6-Month Alignment Strategy includes projects designed to develop organizational integrity, management strength, administrative support, technical services, wage rate equity, financial information and management team strength. The 12 Month Alignment Strategy focuses on Balanced Scorecard™ development, service level management and facility alignment. The Long Term Alignment Strategy moves the Branch forward to develop service level management technology requirements and sustainable development.

The scope of action recommended for Phase 2 has wide reaching implications for the Branch. With new leadership at both the Branch and the departmental level, we believe the time is right for change. Staff at all levels are ready to participate and will turn Surface Operations into a dynamic organization capable of meeting the expectations of senior management, elected officials and the public. In the process of doing so, they will develop the esprit de corps and pride needed to become one of the top public sector organizations in North America. “

2.4.2 SAI Current Status

The Phase One SAI reports were submitted to Surface Operations management team in April 2006. Reports are essentially within the six-month time frame proposed in the Scope Definition document. Seven specific reports have been prepared with the following mandates:

1. Boundary, Function and Facility Direction;
2. Management Strength Alignment;

3. Administrative Strength Alignment;
4. Technical Strength Alignment;
5. Financial Information Alignment;
6. Wage Rate Alignment; and
7. Investment in People.

2.4.3 Major Decisions and Changes Resulting from SAI

Staff and Management Strength and Investment in People

There will be a framework for consistency in roles and responsibilities and consistent reporting relationships from the Director down. Area Managers will be located in the field. Administrative support will be concentrated at the Area Manager level with additional access to human resources, payroll and financial data at the yard level.

Technical Strength

The technical capacity of the group will be expanded through the addition of professional expertise in horticulture, civil engineering technology, arboriculture and forestry. A Technical Support Services Division will be formed to encompass Community and Communication, Business Performance & Innovation, Operations Planning and Administrative Support.

Financial Information

Much of the focus of this Division was based on revising the Fleet Overhead Rate Structure and the Labour Overhead Rate Structure.

However, subsequent to our fieldwork conducted during the summer of 2006, SOP has reported that, *“current initiatives to improve financial management of SOP operations are well underway in respect to joint initiatives of SOP, FSU, HR and IT. An example is the establishment of the 2007 budget into the new operational model at the zone and activity level in MMS. This will feed the CO/FI Budgets, which will yield actual and budget reporting at the Zone Supervisor and Area Managers levels in MMS and in CO at the Managers and Area Manager program levels. These initiatives includes the boundary realignments, services alignments, FTE realignments, activity reviews, and account structures. Further work is being undertaken in respect to the Hired Equipment processes, reports. Other initiatives being developed with respect to work planning will lead to improved financial, budgeting and operational control from a planning perspective.”*

Wage Rate Alignment

Effective March 2006, a new wage rate structure was implemented. Prior to this, wages fluctuated based on the work performed. It is reported that outstanding grievances within SOP were as high as 600 at some points. Wage inequities and leadership styles affected morale and resulted in high absenteeism and high staff turnover. SAI documents state that there is 86% employee support for the rate structure changes and that grievances have dropped dramatically since the review process began.

3 DETAILED OBSERVATIONS AND RECOMMENDATIONS

3.1 Introduction

Five years following amalgamation, the Branch continues to struggle and the basics of sound management practices are still not in place.

Managers do not have plans or goals. Few policies, processes and procedures were found to be documented and systems are not in place to facilitate Branch operations. As a result, virtually all work is performed on an ad hoc basis and is structured around the 3-1-1 Call Centre (residents typically phone with a complaint/request for service) and directives from Councillors.

It was difficult to assess the effectiveness of the Branch activities, as many decisions are verbal or made daily on white boards and then erased, leaving no permanent record. It was also difficult to identify trends across the operation, as most of the 28 yards operate independently and in isolation.

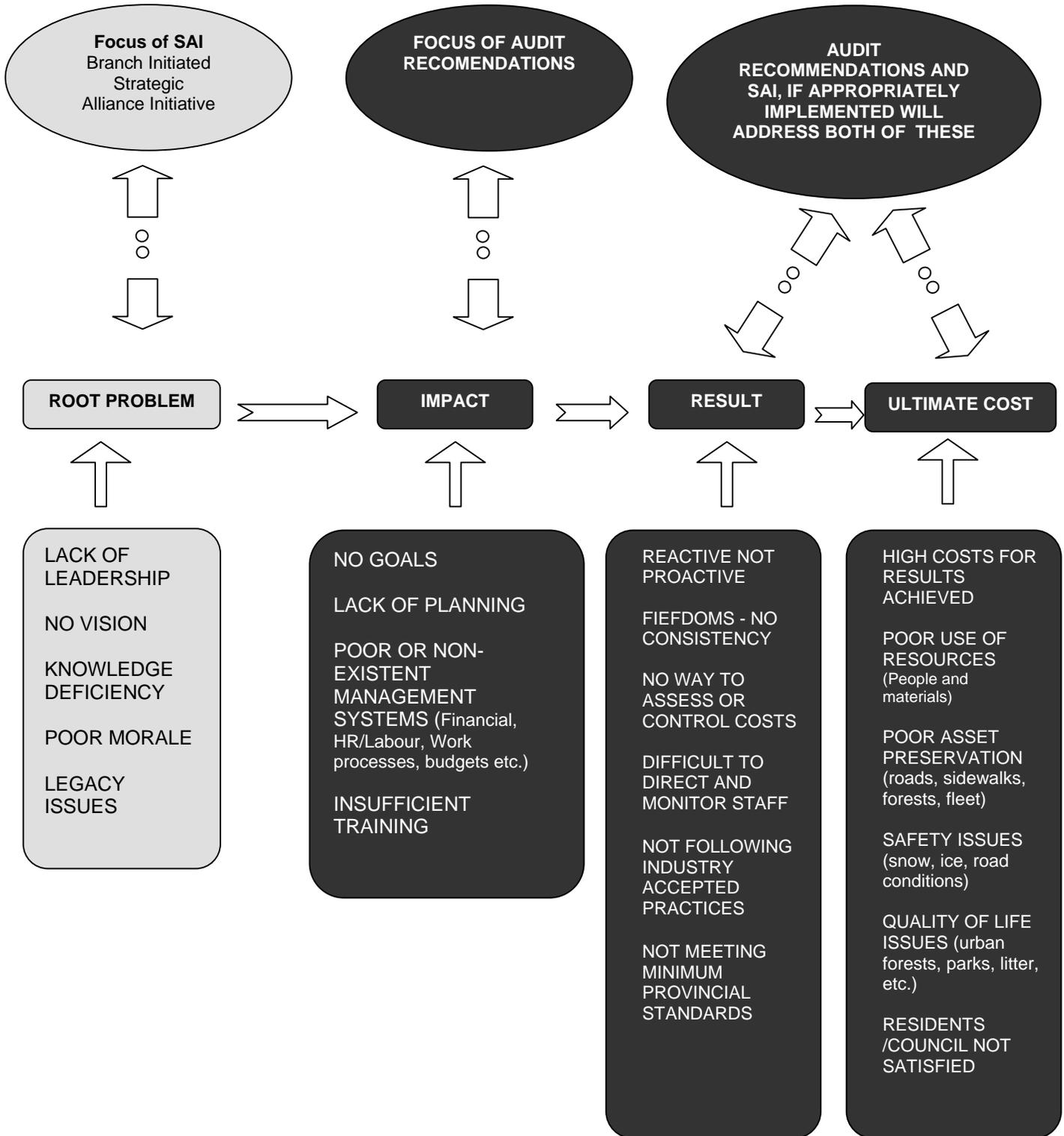
Despite our observations of the current state of affairs within the Branch, there are signs that the situation may improve with new management and the Strategic Alignment Initiative.

Many of our observations are interrelated with a wide range of results. The table on the following page reflects these interdependencies.

This report has been structured around the audit criteria with the following headings:

- Vision and Leadership;
- Goal Setting and Planning;
- Financial Management;
- Human Resources Management;
- Compliance with Standards and Industry Best Practices;
- City's Environmental Strategy for Urban Forests; and
- Fleet.

Table 5: KEY FINDINGS OF THE AUDIT OF SURFACE OPERATIONS



3.2 Vision and Leadership

3.2.1 Strategic Alignment Initiative

There is a tremendous amount of work to be done under the SAI, especially in the financial area and it must be done quickly, yet the current implementation plan is vague and unstructured.

In April 2006, an SAI Executive Briefing document identified the following key targets for the implementation:

- Continue to stabilize Branch operations;
- Continue to strengthen relations with COEs;
- Position the Branch for growth in a dynamic environment;
- Gain operating cost awareness, control and accountability;
- Expand performance monitoring and reporting;
- Meet Branch audit obligations;
- Expand managerial and supervisory capacity;
- Develop the strategic capacity of the Branch Management Team;
- Develop consistency in levels of service;
- Restore technical capacity;
- Develop a collaborative culture;
- Start to create a learning environment; and
- Begin to develop succession capacity.

While these are all notable targets, there is little detail surrounding how all this will be accomplished. This reinforces our belief that planning should be a high priority for the Branch.

At the conclusion of our audit, the level of detail for remaining financial milestones was insufficient. With a budget in excess of \$100 million, the financial component must be given top priority, even if just using temporary measures. Furthermore, actions, which will have a significant impact on Branch costs, must be given higher prominence. This includes accelerated closure of surplus facilities, innovative shift configurations to minimize overtime costs, standard policies and procedures for overtime and development of meaningful budgets. This is discussed further in other sections of this report.

Two years ago, the Branch appointed a new Director, first in an acting capacity and now permanently. He initiated the SAI. In the spring of 2006, a new Manager of Technical Support Services was hired. They both recognize and accept the challenges facing the Branch but are faced with resistance in some areas of the Branch.

Most managers have worked their way up through the organization and have learned their management skills from their previous superiors. Poor practices have propagated.

For example, managers and supervisors spend a significant amount of time in the field at work sites, rather than leaving the day-to-day supervision to experienced crew leaders (foremen) and the maintenance coordinators. There is virtually no reliance on written reports from their staff. Communication is typically verbal and based on individual anecdotal situations rather than broad trends and issues.

As will be seen in the other audit finding sections, much of the current situation has derived from these root problems. SAI should address most of this.

As at August 2006, \$700,000 had been allocated for consulting services for this initiative, as detailed on the following page.

Table 6: Approved Expenditures to Date of the SAI

Initial Review March 2005	Service Level Planning / Operational Planning Review. This phase included an appraisal of current circumstances, interview sessions, and review of current operational planning systems.	Cost: \$ 79,265.60
Phase I Scope Definition Report August 2005	Finalizing scope definition report. This phase included analysis of findings and delivery of the Strategic Alignment Initiative Scope Definition Report and development of a Program Charter and action plan.	\$ 20,715.20
Phase 2 Project Management Services August 2005	6 month Alignment Strategy: Action-oriented project effort involving staff and consultants in a process of change and development, focussing on management and project team formation, briefing sessions and program management. Development of detailed project charters.	\$ 99,980.80
Phase 2 Project Management and Project Team Facilitation Services November 2005	Program project management, facilitation and developing project strategies and facilitating the findings of the project teams. Total of 80 staff involved in teams. Managing and leading seven project teams: <ul style="list-style-type: none"> • Wage Rate Alignment Project • Boundary, Facilities, Alignment Project • Management Strength Alignment Project • Administrative Alignment Project • Technical Services Alignment Project • Financial Alignment Project • Investment in People Project 	\$ 99,729.35
Phase 3 Project Management and Project Team Facilitation Services January 06	Continuation of Phase 2	\$ 99,140.85
Phase 4 Change Management August 2006	Consolidation and review of project team results and recommendations. Development of transition strategy for implementation Completion and implementation of the recommendations from the 6-month alignment project teams Management review and direction of a transition strategy of change Development and implementation of communication strategies for key stakeholders Implementation of recommendations	\$ 300,000.18 CAR approved on Aug 8, 2006
TOTAL COST:		\$698,831.98

It is unclear if all objectives will be achieved with these funds. It should be noted that this excludes all staff time. The level of collaboration and desired consensus is slowing the process. While employee and manager input are desirable, unpopular actions must sometimes be taken in order to implement required changes within a reasonable period of time.

All managers must be made more accountable for their actions, be required to ensure that their staff have the tools and skills required to perform their functions and be encouraged to make appropriate changes despite employee opposition. They must take responsibility for improving their operations and convey a similar message to their staff. They should not be content to accept the status quo – if they do not have the information required to manage their operations, they must strive to fix the problems through their own development of solutions or through collaboration with the specialists in other areas of the organization (e.g. Employee Services, Labour Relations, Financial Services).

Recommendation 1

That the Strategic Alignment Initiative visioning exercise be accelerated (without additional costs), particularly those actions which will have a direct impact on operational efficiency with a target implementation of 2007 for budget and cost savings/consolidation.

Management Response

Management agrees with this recommendation.

Implementation priorities are financial accountability and operational planning. Detailed operations planning development workshops have been moved up to begin in December 2006. The objective is a long-term sustainable organization. Completion is expected in Q4 2007.

3.3 Goal Setting and Planning

It is difficult to plan day-to-day activities without a broad framework. While the Forestry Division is nearing completion of a “Trees and Forests Maintenance Strategy”, the Roads and Parks Divisions do not have a similar strategy.

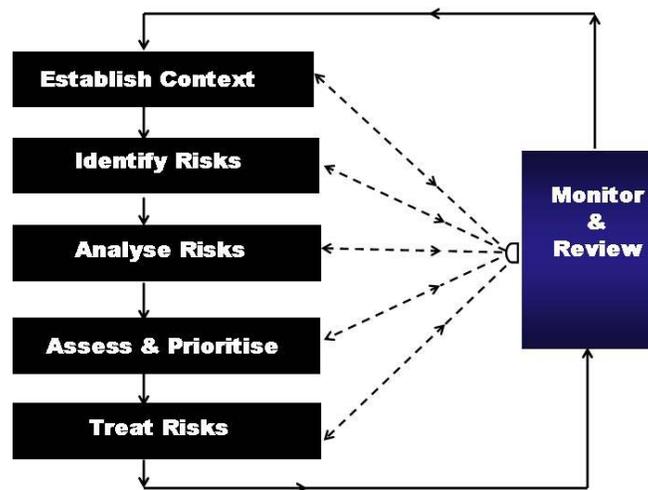
As expanded upon in the Environmental Strategy section of this report, the strategy developed by the Forestry Division is a good example to be followed. The draft, which we reviewed, identifies the issues, short and long-term risks and recommendations. The costs of the recommendations have not yet been identified. We concur with the comments made and direction proposed in the draft document.



3.3.1 Enterprise Risk Management & Setting Goals

In order to establish goals, organizations must adopt a strategic approach to their operations. For municipalities to be able to set priorities, they must identify and assess the Branch related risks to the City, set goals targeted at mitigating the highest priority risks, and develop plans to focus activities and monitor achievements.

During the audit it became very apparent that there was no focus to most Branch activities. There was no sense of high-level priorities, strategies for approaching work or ways to determine if progress is being made. The impact of this lack of direction is apparent in virtually all findings in this report.



Standard Approach to ERM

The Branch should adopt an Enterprise wide Risk Management (ERM) approach to determining strategies, setting goals and developing action plans. This would include an approach, which focuses on:

- Identifying and understanding the impact of critical risks and opportunities to the organization;

- Aligning management objectives with Council concerns;
- Ensuring that:
 - All risks are identified, assessed and managed;
 - Decisions are based on organizational risks and/or opportunities; and
 - Council and senior management are kept informed of top risks to the City and related progress;
- Establishing a risk aware culture; and
- Meeting governance and compliance requirements.

Recommendation 2

That the Branch adopt an Enterprise wide Risk Management (ERM) approach to determining strategies, setting goals and developing action plans.

Management Response

Management agrees with this recommendation.

The Branch's 2007 workplan includes both a strategic approach and priority setting to incorporate ERM approaches and techniques such as SWOT analysis (Strength/Weakness/Opportunities/Threats) and Risk/Impact assessments. The technology plan, stakeholder strategy, fleet plan, and 2008 workplan will also include these approaches to decision-making with completion in Q3 2007.

Recommendation 3

That the Branch develop annual plans which clearly identify the highest risks to the City, strategies to address, goals and milestones and action plans. Regular reports to senior management should document progress and identify any anticipated or realized obstacles or impediments to the achievement of the annual goals.

Management Response

Management agrees with this recommendation.

This process is already in place, and is included in projects such as the technology plan, stakeholder plan, fleet plan, 2008 workplan, etc. This is scheduled for completion in Q4 2007.

3.3.2 Short-term Planning and Standard Operating Procedures

Activities are performed on an ad hoc basis, which is driven primarily by complaints received by constituents. There are no standard operating procedures for planning day- to-day work for crews.

There is no formally organized City-wide work order system in place. The work carried out is reactive; most crews are simply 'putting out fires'. In most cases, the 3-1-1 Call Centre complaint tracking system and calls from Councillors (refer to Section 3.3.3 Notification System) are the drivers in maintenance planning.

In particular, there was no evidence of planned activities within the former 'City of Ottawa' boundaries, beyond the complaint system, although the rural and suburban areas were generally well organized at the 'beat' systems for normal maintenance activities (grading, mowing, etc.). With the exception of patrol reports for major roads (refer to Road Patrols section) there is no systematic planning of summer road activities⁵. Some Maintenance Coordinators periodically review the condition of the roads and perform seasonal planning for asphalt and gravel surface work; however, this is not very effective. Also, the majority of vacation and time off in lieu of overtime is taken during the summer months further reducing the success of ad hoc planning.

Planning should encompass considering all activities that are carried out and scheduling them by season, month, week, crew, zone, etc. to ensure they are done at the most advantageous or efficient time. For example, spring litter pick up should be scheduled just ahead of the first mowing so that crews are not slicing up the litter; ditching a road section and replacing the cross-culverts should be done in year one in anticipation of paving in year two; ditching, base repairs, concrete work (and any other large crew activities) should not be scheduled around peak vacation season. The audit team did not see any evidence of this level of detail.

Area Managers, Zone Supervisors and Maintenance Coordinators typically plan work in their own manner, without the benefit of standard forms, work orders, standard approaches to determining priorities, etc. In the absence of this, some Zone Supervisors and some Maintenance Coordinators have designed their own planning process for tracking purposes but not to the level required.

The creation of a Quality Assurance function for Roads would assist the Branch in moving towards improvements. This should be a separate group which provides checks and balances to the quality of road maintenance including appropriate preventive maintenance. The qualifications of this group should include technical certification and training to address all areas of expertise under review. Members of this group should have a sound knowledge of new technologies re: asphalt and road repairs, snow removal, ice treatment, etc. The group should have the authority to issue work orders and receive confirmation of follow-up and completion, inspect repairs, raise issues to a higher level, provide input to the proposed standard operating procedures, etc. This group should report directly to either the Director, Surface Operations or, Manager, Technical Support Services, and act to verify City compliance with existing laws, regulations, by-laws (standards, Official Plan, etc.) and should be outside CUPE 503 Inside/Outside, to avoid potential conflicts of interest. Finally, this group should develop a strong working relationship with the Infrastructures Services Branch and provide input to major infrastructure projects. This quality assurance function could be combined with the reinstatement of the road patrols. (See Recommendation 29)

⁵ Such as Asphalt (potholes), Ironworks (catch basins and manhole covers), Concrete (curbs and sidewalks).

If Maintenance Coordinators, Zone Supervisors and Managers were all required to prepare a regular report for their superiors, it would increase accountability. Weekly reports, discussing both the past and upcoming week and indicating items such as the weather conditions past and forecast, overtime encountered, overtime anticipated and the reasons for each, accomplishments for the past week and plans for the coming week, hurdles overcome and anticipated, and the status vis-à-vis goals for the season, would provide a tracking and monitoring tool. These reports would also force coordinators and supervisors to justify decisions for overtime etc. to their managers as well as keep their superiors informed of the work being achieved. These reports should be of a narrative and analytical nature, not just statistical; they should explain why decisions were made or why plans stated in the previous report were not accomplished.

Recommendation 4

That the Branch create a Quality Assurance function for Roads, through the reallocation of existing resources, to provide checks and balances to the quality of road maintenance including appropriate preventive maintenance.

Management Response

Management disagrees with this recommendation.

Industry best practices clearly identify operational quality, effectiveness and efficiency as core management accountabilities. The Branch's approach is to put in place management skills as well as financial and operational planning, and management tools to ensure that staff is knowledgeable, capable, and empowered to manage these items.

Performance Measurement and Business Services Unit has been established with the responsibility to conduct internal Competitive Service Delivery Reviews (CSDR) analysis and support the performance management requirements.

Audit mechanisms are already in place through the Office of the Auditor General. Comparative tools such as OMBI and MPMP are also in place to benchmark performance against other municipalities

Recommendation 5

That the Branch initiate a weekly analytical reporting mechanism.

Management Response

Management agrees with this recommendation.

A process has already been implemented. Financial reports are being updated. Budget and cost accountability will be at the supervisor level, implementation anticipated for Q4 2007 and program accountabilities at zone service level area (supervisor level) for Q1 2008. Weekly operational meetings include a review of financials and service delivery metrics. Note that recommendations 5, 8, 10, 11, 24

and 25 are linked as part of the operations planning process and have some dependencies.

Recommendation 6

That the Branch re-engineer the planning and allocation of work so that all work is initiated by work orders issued by supervisors or other City staff (not the 3-1-1 Call Centre). Note that this will also facilitate the simplification of the accounting system.

Management Response

Management disagrees with this recommendation.

Work will be proactively planned and managed, and operational planning and accomplishment tracking is a major focus of current efforts. The Branch's work is activity-based not work-order driven. Work orders are created where individual cost tracking is required. Individual work orders for all of the Branch's work is not necessary and would create significant administrative inefficiencies. Individual work orders are created as required for specific work tracking.

Recommendation 7

That the Branch conduct complete process mapping and develop and implement standard operating procedures.

Management Response

Management agrees with this recommendation and it is already in progress.

This is being implemented in phases based on an assessment of risk and opportunity associated with each process, which will be determined in 2008.

3.3.3 Notification System (3-1-1 Call Centre)

The Notification system (3-1-1 Call Centre) is an inefficient manner of planning work and should only be used to complement a broader work plan prepared by experienced personnel.

Notifications are typically initiated by calls to the Call Centre (3-1-1 phone number) from residents requesting service. These 'service requests' also include staff-generated work programs; requests initiated by Councillors or other City staff. These notifications and service requests form the basis of work plans. In some locations, a parallel and duplicate service request system also operates.

In the 12 months ending May 31, 2006, 37,881 notifications were received through the 3-1-1 Call Centre system. The Call Centre is open 24/7, although service beyond core hours (Monday through Friday, 7 a.m. to 7 p.m.) and, on weekends, is limited to the more urgent requests such as broken water mains, traffic lights not functioning, or by-law services such as noise complaints, parking enforcement or animal control services. Residents, outside of core business hours, have the option of leaving a voice mail message, which leads to a service request being generated on the next business day.

Clients can also email their service requests to 311@ottawa.ca. Calls to the Call Centre are expected to increase as City residents learn that this is the only way to have work initiated in their neighbourhood. That is, if residents do not phone in a service request, work will go unattended.

Surface Operations staff indicated that the Call Centre staff do not have the ability to triage the calls received (e.g. further clarification and on-site visits are required by Maintenance Coordinators or Forestry Inspectors before they can determine the extent of work, priority, etc.) and based on some sampling performed, do not always accurately record the problem as recounted by the homeowner. However the Call Centre staff indicated that they do have the ability to fully triage the calls received and are not aware of any cases where inaccurate information was recorded.

Standard codes are not used for many work orders (e.g. computer fields) so it is difficult to roll up information to audit the 3-1-1 Call Centre for accuracy (proper detection of what the problem is, whether it was assigned to the correct area, etc.). For example, a description may read "Bus Stop" but unless the detailed description is read, it is not known whether the service requested is for routine maintenance, litter, vandalism, damage due to an accident, snow around the bus stop, etc.

Furthermore, the system does not communicate with other corporate systems. For example, the Call Centre may assign a call for service to Surface Operations Branch and complete the Branch's notification form. But if SOP then visits the location and determines that the call for service relates to another Branch from Public Works and Services, they must print the form and fax it to the other Branch who then manually enters the information into the system. This redirection should reasonably be electronic with the capacity to re-assign responsibility.

Surface Operations staff indicated that the distribution of the notifications to the proper crew within SOP can also be problematic, as they do not always know the location. A link of the ward number to the street address would simplify the work allocation by then having the ward (approximate geographic location) indicated on the form. The Call Centre staff indicated that the street address is contained on the service request generated by staff at the 3-1-1 Call Centre, in all cases where it is available.

Not only is the complaint tracking system driving the maintenance process but it has begun to gain a gravity of its own as the performance of groups can be measured by the number of outstanding requests. For example, if a request for service is for an activity which is carried out seasonally and the work cannot be scheduled for six months, or until materials and weather conditions permit, staff in some locations have been directed to record those requests for services as 'completed', in order to reduce the statistics for outstanding requests, even though the work has not been carried out. At

some level the focus is on managing the system and not managing the outcome. Management report that the request for service is logged and the work is planned when the season arrives permitting the work to be completed.

It was noted that some elected officials often by-pass the 3-1-1 Call Centre, passing requests for service directly to senior managers within Surface Operations Branch leading to a significant work demand. Staff have tabulated known calls and emails received directly by Councillors and estimate an average of 12-15 per day or 3,000-4,000 per year. Staff must handle each of these individually, generally with a follow-up response by phone or email. These queries result in a great deal of senior managers' time being taken away from the tasks at hand.

Recommendation 8

That Surface Operations Branch re-engineer their approach to planning work so that the notification system is a complement to a systematic approach based on routine maintenance, road patrols and preventive maintenance.

Management Response

Surface Operations: Management agrees with this recommendation and it is already in progress and is expected to be completed by Q4 2007.

Information Technology Services: Management agrees with this recommendation. Working together with PWS, ITS can change and implement work orders, preventative maintenance and other functions to assist with planning, as described by the audit. The assessment of the time and cost to implement this will be undertaken starting in Q1 2008

Recommendation 9

That Surface Operations, Information Technology Services and the 3-1-1 Call Centre collaborate to improve the capability of the Call Centre and related system to facilitate the work of the Surface Operations Branch staff responding to notifications.

Management Response

Surface Operations: Management agrees with this recommendation and work is already in progress. The inquiry and notification process is being re-engineered in conjunction with the 3-1-1 Call Centre and ITS staff in Q4 2007. As an interim measure until the results of the re-engineering effort are fully implemented, an operations clerk has been dedicated to work on facilitating notifications, processing and tracking.

In addition, measures are being taken to provide the public and other stakeholders with improved information to proactively satisfy service and information requests. Examples of these proactive measures include: general training on Surface Operations services to all of the Client Service Centres staff; specialized training on

items of interest to the rural community to "Rural Champions" in the Call Centre; updates and enhancements information appearing on the City's website; and implementation of winter parking e-alerts that notify registrants of winter parking restrictions via automated email alerts.

Client Services and Public Information: Management agrees with this recommendation. Management will continue to work with Councillors' offices to request that they use 3-1-1 to forward service requests to all operating departments.

Information Technology Services: Management agrees with this recommendation. Working together with PWS and the 3-1-1 Call Centre, ITS can improve and enhance the integration and data sharing/transfer between Request for Service and SAP, at an estimated cost of \$450,000. The business case for this project will be submitted to the Value Assessment Program and will be prioritized along with other Corporate IT requirements. It is anticipated that this project can be initiated in Q1 2008.

3.3.4 Performance Measurement (Accomplishment Units)

Accomplishment units, recorded on the Activity Sheet, are not used for any management purpose.

Accomplishment units must be completed in mandatory fields on the Activity Sheet of the Maintenance Management System (MMS). However, the accomplishment units used are not units that assist the Branch track the materials or labour used and help them to improve their performance.

Accomplishment units should be redesigned to measure quantities that the Branch needs to have monitored. For example, there are five districts in the Roads Division, each with yards and up to five classes of roads. For the paved road, a huge expense is the asphalt. We found during our audit that there are more cold patch repairs⁶ compared to hot patch repairs (hot asphalt is typically used in the summer resulting in a much more durable repair). Cold patch repairs are not tracked and not replaced with hot patch repairs in the summer unless the earlier repair is reported to have failed (generally by the public but occasionally by staff). If the two types of asphalt repairs were tracked by district, by yard, by road class, Managers and Supervisors would then have a better sense of how it was being used and be able to provide direction on optimization of works. Currently, the materials and labour for these repairs are allocated to several asphalt accounts which are difficult to interpret and analyse.

Time is wasted calculating the accomplishment units under the existing system and which are not used by anyone. A revised process could be used in program optimization and management.

⁶ Cold asphalt is typically used in the winter and should be replaced in the spring but generally is not in Ottawa

Recommendation 10

That accomplishment units be redesigned to measure quantities, which the Branch should be monitoring to conform to industry best practices.

Management Response

Management agrees with this recommendation and it is already in progress.

Accomplishment units are being updated as part of the comprehensive operations planning initiative. Financial reports are being modified to include reporting of accomplishment units by activity, all scheduled for implementation in Q4 2007.

3.4 Financial Management

During our interviews, managers expressed great frustration with the lack of accurate, relevant and timely financial information. The combination of amalgamation, several reorganizations, centralization of financial support (MMS) staff and reduced budgets have all contributed to this situation.

When we started the audit, the most frequent complaint from Surface Operations Branch was inadequate funding. However, upon review we believe that funds, especially within the Roads Division, are likely adequate but need to be better managed.

During the audit fieldwork conducted in the summer of 2006, we expressed concern that SOP was not treating the financial issues as a high priority but rather waiting until other parts of the organization were addressed by SAI. For example, there was no plan to ensure that managers have budgets down to their organization levels for 2006 and possibly even 2007.

SOP management have reported in November 2006, subsequent to the completion of the audit fieldwork that *"there is an extensive effort in place to introduce activity based budgets for 2007, as well as activity based cost control at supervisory levels. SAI introduced organizational changes to correct fundamental problems in the Branch's organizational structure and in Branch relations to COEs. The Branch is now progressing with a new budget process involving management and supervisory staff."*

3.4.1 Budgeting

The budget process for SOP provides Council with a false sense of control. The budget for 2006 (\$109 million) is a 17% increase over the previous year's adjusted budget. The SOP budget is created as a top down process based on increases to the previous year's spending rather than specific needs. Given the weather-dependant nature of most operations, and the large inefficiencies, which we noted, this results in poorly performing groups being rewarded and efficient groups being penalized.

Organizational budgets are meant to facilitate the management of costs. Based on discussions with management, budgets have historically been developed based on a percentage increase to the previous year and ad hoc individual items. Once the total budget has been adopted, it has essentially been allocated across the organization based on the previous year's actual expenditures by group.

In the four years from 2002 to 2006, there has been a 30%⁷ increase in the gross expenditures (after cost recoveries). Yet, the managers in the field have not provided any input to the budgets or even received them once prepared. It is difficult to assess whether managers are managing costs well, however in the absence of budget access, it is reasonable to assume that cost control has not been communicated as a top priority.

During the year, significant budget amounts are "restated" and moved to other line items, often with the previous years numbers restated also. This restatement process is extremely time consuming with dubious value. Variances, to the extent they are analysed, are based on comparisons of the actual expenditures to the final restated budget as opposed to the original adopted budget.

Our review of budgets for the past few years indicated that there were an excessive amount of financial accounts (cost elements) with most not having budgets allocated to them. In effect, the Branch has so many cumbersome and unmanageable cost elements which do not roll up into a useful operations level format, they are rendered meaningless.

Since amalgamation, budgets have essentially been developed based on previous actual expenditures. The result being that inefficient groups are rewarded by receiving more funding and the efficient ones are potentially penalized. One hundred percent of the budget is allocated out to units during the initial budget process. But given the impact that weather (snow, freezing rain, floods, drought, and rain) can have on SOP activities and responsibilities, funds are often transferred and the budget is restated. Variances from budget are not analysed in detail and are based on the last restated budget, not the originally approved budget for the year. This process of restating the budget contributes to a further lack of analysis and understanding of the true appropriateness, effectiveness and efficiency of expenditures for the Branch.

Much of the focus of the SAI group was based on revising the Fleet Overhead Rate Structure and the Labour Overhead Rate Structure. Some operating cost reports and activity-based budget pilot documents were developed, however, based on our discussions with management this was largely restating previous actuals and developing charts of accounts. As this was done simultaneously with the boundary

⁷ $(\$109,182,000 - \$84,080,000) / \$84,080,000$

project, the new chart of accounts does not accurately reflect the new boundaries or organizational structure.

Given time constraints and the urgency to develop a 2007 budget, which can be used to control expenditures, an extremely simplified, streamlined budget must be prepared for the Branch. This budget should roll up from the bottom as opposed to the current roll down from the top and should focus on the information which managers need to make financial decisions. Given the questionable usefulness of past budgets, previous year's budgets should not be restated; instead resources should be invested in preparing the most accurate budget for the future.

In the absence of more reliable amounts, the budget should be based on either a standard amount per unit or on person year budgets (hours not dollars) which are then converted to dollars using a standard rate. For example, a fixed amount per lane kilometre for each road class for each yard, adjusted for unique situations. Budgets should be developed for each major function by road, yard, park and forestry and managed by each Zone Supervisor. That is, budgets should match both the organizational chart and the geographic boundaries for which each group is responsible.

The financial budget should not be increased until SOP has a good understanding of their financial situation.

Recommendation 11

That, for the year 2007, an extremely simplified and streamlined budget be prepared for the Branch. This budget should roll up from the bottom as opposed to the current roll down from the top and should focus on the information which managers need to make financial decisions.

Management Response

Surface Operations: Management agrees with this recommendation. Simplification of management reporting is underway. Some bottom-up analysis has been completed; however complete bottom-up budgeting is not feasible until operational planning functions have been implemented. This will be implemented in Q4 2007.

Financial Services: Management agrees with this recommendation. The 2007 budget will be developed at a sufficiently detailed level to reflect the decision-making structure of the organization and summarized for the corporate budget presentation. The audit suggested the need for a greater level of detail for SOP operations. Changes were initiated in 2006 through the Branch's SAI Project to develop and monitor the budget within their Maintenance Management System (MMS) at a zone and activity level, accessible by Supervisors, Area Managers and Managers.

Recommendation 12

That the Surface Operations Branch's budget not be increased until the Branch has a good understanding of their financial situation.

Management Response

Management disagrees with this recommendation.

The budget, and Branch operations and services will be reviewed in a manner prescribed by Council to be established through the Budget Directions.

Recommendation 13

That the Surface Operations Branch's budget not be increased while the Branch refines the manner in which it formulates its budget requests and redirects existing funds to programs, which do have a strategic plan and related specific budget, specifically the Forestry program.

Management Response

Management disagrees with this recommendation.

The budget, and Branch operations and services will be reviewed in a manner prescribed by Council to be established through the Budget Directions.

3.4.2 Accounting and Payroll Errors

The input to virtually all corporate systems, including accounts payable and payroll are susceptible to data entry errors and therefore may be inaccurate and misleading. We found the Maintenance Activity Sheets, the input forms for SAP accounting system, used across City operations, are poorly formatted and designed with few checks and balances.

Supervisors in most yards report that payroll errors occur frequently and are only detected by staff when they receive their pay cheques. One can assume that errors, which are in favour of an employee, go undetected. That is, staff could be paid more than they are entitled to with no detection or correction.

All payroll hours and coding for pay scales is entered on the Activity Sheets, as well as many supplier payments. The information on the Activity Sheets is keyed into the MMS⁸ module of SAP. This is a single point of entry that populates other SAP modules with appropriate data; i.e. employee labour (payroll) information is input to the Human Resources (HR) module, material information populates the Materials Management (MM) module, financial information is used in the Finance/Controlling (FI/CO) module (including P-Card information) and MMS information (including contracted services information) is fed into the Plant Maintenance (PM) and Project Systems (PS) modules.

⁸ The Maintenance Management System (MMS) is a module in SAP that was designed as a result of the TUPW1 Integrated Business Solution (IBS) Project.

Most Zone Supervisors report spending an excessive amount of time correcting payroll errors, to the point where one Supervisor deliberately hands out the cheques after the shift finishes so he will not have to deal with the problems that day. Zone Supervisors should continue to approve payroll records prior to entry into the payroll system. In addition, they should review the payroll data after it is entered into the payroll system but prior to the cheques being issued.

Payroll errors, which affect the amount received by employees that can go undetected, include hours worked and job code (pay rate, regular, shift premium, on-call, overtime to be banked, overtime to be paid). For example, cases exist where employees with less seniority receive a higher hourly rate than those with higher seniority⁹. Managers have been unable to rectify the situation with Employee Services despite it being an obvious error. This undermines efforts to improve morale and productivity and absorbs managers' time as well as increasing grievances.

In addition, the activity code (for financial accounting purposes) can also be entered incorrectly. Payroll cost may be recorded in incorrect financial accounts impacting actual cost figures, variance analysis and future budget calculations. Coordinators and supervisors do not receive any information once the data is entered to verify the accuracy of the information entered. Staff indicated that on occasion, payroll staff would call to clarify some items.

Some payroll errors cannot be corrected. Staff have reported that overtime which was to be banked in the Time Off in Lieu account (TOIL) was actually paid out in their payroll (with tax deducted). When staff informed payroll they were told it could not be reversed.

These weak financial controls are a result of poor design of the Maintenance Activity Sheet and a lack of checks and balances. An automated system and computer equipment in the yards to permit electronic data entry at the site would help alleviate this problem.

3.4.3 Inefficient and Inappropriate Accounting System

The accounting system, as it presently functions, does not meet the needs of the Branch and does not meet the intended objectives of financial accountability and performance accountability.

This has three effects:

1. Managers and supervisors do not receive the information they require to effectively manage their operations,

⁹ Higher seniority staff are receiving \$25.55/hour and those with less seniority are receiving \$26.05/hour. All are from former City of Ottawa.

2. Managers and supervisors spend excessive time on administrative functions to the detriment of issues that really do require their attention, and
3. Some groups have been forced to develop their own systems (e.g. extensive Excel spreadsheet for outstanding work in Forestry) to try to meet some of their needs.

Lack of Information to Manage Operations

Many of the problems stem from a poorly designed system. In an effort to design a single piece of paper that could be used generically for all management systems, many real objectives were lost. The system now places extraordinary demands on staff, generating few reports of any usefulness.

The Branch's current use of the corporate system attempts to record costs by activity, however, the type of work performed by the Branch is not conducive to this approach. Road operations are better suited to a work order system due to the high volume of non-repetitive jobs. For example, although they do many asphalt repairs, each repair is at an isolated location. Setting up each repair job as a separate activity becomes unnecessarily cumbersome. Alternatively, putting all asphalt repairs into the same activity prevents analysis of individual work. Both approaches are in use at various sites. There is no consistency.

Too Much Time Spent on Administrative Functions

Almost all yards have consistently requested more administrative staff for the past few years. A lack of sufficient administrative staff was cited to us as a major problem. Maintenance Coordinators and Zone Supervisors spend an excessive amount of time on administrative functions for which they are not trained. However, we believe that the root of the problem is the use of the Maintenance Activity Sheets and the required reporting system. The sheets were designed to be generic enough for all groups, yet do not meet any of the needs of the Surface Operations Branch.

One Forestry Crew Leader reports spending up to 50% of his day allocating contractor invoices to various financial accounts due to lack of administrative or clerical help. The accounts are based on the diameter of the trees removed, among other things. We could find no reason for the allocation to this level of detail. The Crew Leader does not receive the output information, the budget historically has not been allocated down to this level and the Supervisors and Management do not use this information, thus every hour spent on this task by an experienced Forestry Crew Leader is time away from his primary job.

Furthermore, an excessive amount of supervisory time is spent with Maintenance Coordinators manually completing the Activity Sheets, then having them hand delivered (usually by a Zone Supervisor) from each yard to Payroll Division at Constellation on a daily basis where they are re-keyed into the system. Staff report a

high incident of “losses” of Activity Sheets at the main Surface Operations’ office at Constellation, leading some staff to make back-up copies of all forms submitted.

Secondary Systems

In lieu of an operating central tracking system, District Managers, responsible for submitting annual estimates of materials and contractor work, have developed their own tracking systems to ensure accuracy and to avoid substantial clerical demands associated with having to extend contracts beyond original estimates.

All of these reflect an inefficient use of resources with questionable usefulness, yet staff feel un-enabled to implement change or raise awareness of the system related problems.

It is not clear if the staff of the Financial Support Unit (FSU), which are part of the Financial Services Branch and provide support to the operational unit, are actually providing direction or responding to Surface Operation Branch’s initiatives. It appears that Financial Services Branch has been concerned with the high level expenditures but have not provided the detailed information required by managers to actually control costs on a day-to-day basis.

The Financial Services Branch, via the FSU assigned to Surface Operations, must become more proactive in demanding minimum financial requirements and providing guidance and direction to SOP rather than allowing the Branch to proceed on their own. The role of the FSU in the field should not just be to assist SOP in their requests, but also to provide a level of assurance to the Financial Services Branch that the operations are in compliance with good accounting and financial practices.

Some of the problems could be resolved by moving to a work order driven system, which feeds into the financial accounting system, redesigning processes and workflows so that data entry is performed entirely at either the yard or in the field rather than at the Branch’s main office (Constellation Crescent). For example, employees could be equipped with handheld devices, personal digital assistants (PDAs), to key in accomplishment levels (e.g. amount of asphalt used) and to confirm information (e.g. location of utilities) in the field electronically to avoid travel costs, and duplication of effort. These PDAs could be used for many other purposes such as updating databases for tracking of work done historically. Checks and balances could be built into this system to verify hours worked, etc. by the Site Supervisor and District Manager.

Recommendation 14

That the entire Activity Sheet data entry process be reengineered, to provide the necessary financial and payroll information within the SAP system.

Management Response

Management agrees with this recommendation.

The activity sheet is being reviewed as part of the Strategic Alignment Initiative Performance Management in Q1 2008. Once the Branch's performance measurement and management framework is developed, the activity sheet and associated data collection/entry processes will be re-engineered to ensure the necessary information is captured and entered efficiently. As an immediate measure, to better utilize data that can already be entered into the system, the Branch is incorporating accomplishments by reporting on a number of key operational reports to improve the information available for operational decisions.

Recommendation 15

That employees be equipped to key in accomplishment levels electronically to avoid travel costs and duplication of effort; and that checks and balances be built into this system for verification of hours works, etc. by the Site Supervisor and District Manager.

Management Response

Management agrees with this recommendation.

As an immediate measure, the administrative staff have been decentralized to field locations allowing for support closer to those who need it. This minimizes redundancy and eliminates the vast majority of travel costs associated with the delivery of activity sheets to headquarters. Checks and balances already exist, within the system, to ensure that supervisors approve all activity sheets. As part of the activity sheet re-engineering effort identified in Response 15, electronic means of having field staff enter time and accomplishments with appropriate checks and balances will be considered in the future.

3.4.4 Financial Reporting

A virtual lack of any relevant financial (and human resources) information, both actual and budget, eliminates managers' and supervisors' ability to apply any type of financial management to their operations. The Branch's inability to provide sound, convincing information and analysis prevents Council from having the best information on which to make decisions.

No financial information is shared with Zone Supervisors and/or Maintenance Coordinators. When asked, they all stated they received no financial reports and in fact could not tell us their budget. In fact, Roads and Parks field staff (Maintenance Coordinators and Zone Supervisors) indicated that they have not had a budget for their area of responsibility since amalgamation.

Only Area Managers receive financial information. This information is activity based not organizationally based. For example, the asphalt costs for the entire Central Region are tracked but there are several Supervisors and Zone Coordinators responsible for this

area. Financial information is available only at a Branch-wide program level and is not available by yard, crew or district. In 2005, Forestry Division received variance reports, the first since amalgamation. In the East end, one Supervisor indicated that in the spring of 2006 they started to receive limited financial information.

Recommendation 16

That, in conjunction with the proposed simplified budget system, Zone Supervisors receive current and accurate financial reports indicating the actual expenditures as well as the budgeted amounts.

Management Response

Management agrees with this recommendation.

The supervisor report currently includes only cost and is being updated to include budget figures. This will be implemented by Q3 2007.

3.4.5 Preservation of Assets and Capital Decisions

Decisions to cut back budgets for preventive maintenance and routine repairs have not always taken into account the resultant deterioration of infrastructure, specifically roads, and long-term future costs to reinstate to a level which meets standards. Similarly, decisions to make, or not make, large infrastructure investment is not linked closely enough to the potential to limit excessive operating expenses, in part because the relevant information does not roll up in a manner which facilitates analysis when making capital decisions.

The City of Ottawa has 5,500 km of roads. This would stretch farther than driving from Ottawa to Vancouver, yet pavement management decisions are not always based on sound and complete information focused on extending the lifecycle of the asphalt.

Paved roads are designed with a flexible impervious layer on top of a sturdy gravel base so that water cannot get under the pavement. This prevents freeze/thaw cycles from lifting and cracking the pavement. On new roads (less than five years old) when linear cracks begin to appear it is cost effective to fill those linear cracks with asphalt glue and retain the impervious nature of the asphalt. On older roads when much of the asphalt content has evaporated and the remaining asphalt is too brittle, cracking is no longer linear. Instead, cracking is initiated from above and below and is often 'alligator' scale style cracking. At this point potholes are more likely to form and the asphalt rapidly deteriorates. Ottawa, with high clay content in the soil, is especially vulnerable.

Capital cutbacks often result in higher operating costs, as damaged roads require repeated patching. For example, we were told that the intersection of Rideau and King Edward Streets has been recommended for rebuild every year for the last five years. We were also told that the excessive wear and tear resulting from large transport trucks turning at this intersection resulted, in spring 2006, in repairs every weeknight. We were not able to verify this due to the poor financial accounting as discussed in other sections of this report.

During our audit we also noted that many City roads are in a poor state with respect to sealing of asphalt cracks. SOP has indicated that the Infrastructure Services Branch budgets for and undertakes the crack sealing operations.

Without a more integrated team approach to pavement management, Ottawa roads will continue to deteriorate at a faster pace than necessary. A cross-disciplinary approach between Infrastructure Services and Surface Operations, which makes joint decisions on materials, building standards, preventive maintenance and intervention, will reduce maintenance, repair and replacement costs.

SOP staff stated they have limited interaction with the Infrastructure Services Branch¹⁰. While SOP management have regular meetings with the Infrastructure Services Branch, this information does not appear to flow down to staff. SOP Maintenance Coordinators were not aware of the capital project plan and did not make cost avoidance decisions based on what road was next to be reconstructed. In one case, a proactive Maintenance Coordinator had driven around various neighbourhoods within his jurisdiction and made a list of potholes to be filled the day before our interview.

Under the Universal Program Review, staff recommended the elimination of several activities. The following cuts were made in the 2004 adopted budget (It should be noted that many were reinstated in 2005.):

- Reduce tree planting by 50% (retain replacement only) only capital program remains.
- Reduce routine shrub maintenance by 50% with work being carried out on a reactive basis only.
- Eliminate routine sweeping of roadways throughout the summer and fall, however, sweeping and flushing will be provided on a reactive basis only and limited to significant unseemliness with priority given to commercial and high volume areas.
- Reduce frequency of roadside grass cutting. Grass cutting on highway 174 will be reduced from the current standard of four times per year to twice annually, on urban arterials from six times per year to twice annually, and on rural arterials and collectors from twice per year to once annually (modified reinstatement in 2005 at a cost of \$650,000 – back to two times for rural and up to five times for urban).
- Litter picked up along arterial and collector roads will be limited to picking up large items only and responding to major service requests involving significant issues of debris. Litter will continue to be picked up on a regular basis in commercial areas in the core of the City.

¹⁰ Projects larger than potholes or 200 SF overlays are considered capital work and are completed by Infrastructure Services Branch.

- Eliminate routine road patrol to inspect for deficiencies on collector (currently once a month) and residential streets (currently once every two weeks). Road patrol will continue to be carried out on freeways and arterial roads.

While not identified as such at the time, these cutbacks fell into two categories; those with long-term repercussions (e.g. eliminate road patrols) and those with none (e.g. reduce roadside grass cutting). These cutbacks were approved by Council but there was no documentation indicating if the long-term ramifications had been explained to Council. For example, the function of road patrols is to inspect for deficiencies; that is to inspect roads and sidewalks to repair minor problems (e.g. sealing cracks) before they become big problems (e.g. large cracks with frost heaving and structural road damage).

Recommendation 17

That any cutbacks proposed to Council during budget deliberations clearly state any impact on service levels, City standards and condition of infrastructure (e.g. deterioration from lack of maintenance).

Management Response

Infrastructure Services: Management agrees with this recommendation.

Through the LRFP process, investment levels are identified to maintain the City's infrastructure assets. In the case of roads, the level of investment identified in the LRFP is to maintain the overall network at current levels (i.e. approximately 20% in need of resurfacing or reconstruction). When approved budget levels are less than the needs identified in the LRFP, as has been the case in previous years, over time this results in further deterioration of the overall network condition and increases the pressure on the operating budget.

As part of the City Corporate Plan, the Infrastructure Services Branch (ISB) is required to define service levels for municipal infrastructure. Once completed in 2007/08, this will provide an ability to create more direct links between funding levels and impacts on service levels.

Recommendation 18

That Council be advised of the annual operating cost increase required or savings anticipated when considering major capital decisions.

Management Response

Infrastructure Services: Management agrees with this recommendation.

Growth in the transportation network has a significant impact on operating costs. Growth information is tracked by ISB and provided to SOP so that this can be reflected as an operating pressure as part of the annual budget process.

3.5 Human Resources Management

As part of a previous project, the City was reorganized into “Centres of Expertise” or COE. This model centralized many administrative functions including all human resources issues. The COE model was intended to provide a single approach to policies and procedures. However, by removing all divisional human resources staff to a central unit, managers were overwhelmed with human resources issues. A recent decision to return the administrative staff to the units they support will change these dynamics.

3.5.1 Human Resources Tracking Systems

No human resources information is shared with Area Managers, Zone Supervisors or Maintenance Coordinators. When asked, none of them could tell what their absenteeism rates were, levels of overtime, number of grievances, etc. Senior managers indicated that they do receive limited reports with questionable usefulness.

As part of the audit, reports indicating overtime, absenteeism and number of grievances were requested. While reports were received approximately three weeks following the request, numerous errors were also noted and therefore the reliability is questionable. Note, this information is included within this report, however, we cannot guarantee accuracy.

Managers and supervisors are being asked to manage their staff and yet are provided with virtually no tools to facilitate this. Presumably, this problem exists in other areas of the organization.

Recommendation 19

That the Surface Operations Branch and the Employee Services Branch, work together to develop basic routine monthly reports to facilitate management of SOP staff.

Management Response

Surface Operations: Management agrees with this recommendation and this process has already been initiated.

Staffing coordinator position, established through Strategic Alignment Initiative, will facilitate the implementation of these measures in Q4 2007.

Employee Services: Employee Services will meet with Surface Operations staff to review the HR reports already available through SAP-HR, to assist in managing human resources. As well, Employee Services will ensure that Surface Operations staff is able to access the HR information required to manage their staff.

3.5.2 Systemic Management of Overtime

Work can be structured in a manner which systemically increases the Supervisors' and Maintenance Coordinators' overtime.

The Branch hierarchy is Director, Area Manager, Zone Supervisor, Maintenance Coordinator (foreman), Crew Leader and Crews. Zone Supervisors, Maintenance Coordinators and all crew members are eligible for overtime.

In the absence of standard policies and procedures, the approach to overtime is quite different from yard to yard. In some cases, Zone Supervisors and/or Maintenance Coordinators cover off for each other when they are on-call (one supervisor on-call for a week for both yards and the other on-call for the second week for both yards) while in the suburban/rural areas on-call duties are rotated through non-supervisory staff. In other cases, Zone Supervisors are on-call essentially all the time but just for their own yard. Historically, most Area Managers have not approved overtime for the Zone Supervisors and/or Maintenance Coordinators. Recently, following an audit of overtime in 2005, some managers have started to review overtime.

Structures in place to assign hours of work (generally 7:00 a.m. to 3:30 p.m. Monday to Friday, year-round) are a carry-over from past practices. Substantial savings on current overtime budgets (mostly winter occurrences) may be possible through alternative shift design, restructuring of collective agreements, improved management tools, and greater flexibility for banked overtime, time off in lieu, etc.

Evenings and weekends can require an on-call supervisor (Zone Supervisor or Maintenance Coordinator) available to call in crews as required. Work can be structured in a manner which maximizes the supervisor's overtime. For example, one Maintenance Coordinator told the audit team that he likes working the night shift as he then receives overtime, as compared to the day shift when the Zone Supervisor "keeps" the overtime.

Maintenance Coordinators are responsible for scheduling daily work. To plan each day, they typically arrive before the regular start time of the crews. Also, in order to complete their paper work and prepare crew assignments for the next day they often stay beyond quitting time. Our understanding is that this extra time can average between 60 to 90 minutes a day. Some of the Maintenance Coordinators do not book it as overtime, others do. If it has been booked as overtime it may account for some of the larger overtime totals we see amongst this category of worker.

Recommendation 20

That Surface Operations Branch develop and implement standard policies and procedures to reduce both routine "overtime" work and on-call work of Supervisors and Maintenance Coordinators. Consideration should be given to changing shift start and end times, as well as sharing on-call responsibilities among two or more yards.

Management Response

Management agrees with this recommendation and process has already been initiated.

For example in Parks, each Area Manager places one Supervisor on call to handle after hour emergencies across their entire district. They do not put someone on call for each work unit. They also assess the call to see if it is truly an emergency or if it can wait until the next workday so as to avoid the overtime cost of responding to the call. There is little non-discretionary overtime worked in the Branch.

The Roads Division has also implemented a no overtime payment procedure for the 6th & 7th day worked on 24/7 City core shift, which brought forth a saving of \$165,000. Also the start time for night shift has been changed to 10:30 p.m., which allows regular hour coverage for morning rush hour, therefore reducing overtime costs. The Branch continues to move forward with new initiatives and will finalize in Q4 2007.

3.5.3 Systemic Staff Overtime

With almost 185,000 overtime hours among 727 employees, overtime costs for the 12 months ended April 30, 2006 exceeded six million dollars. Despite the weather-dependent nature of work, most staff work Monday to Friday days in the summer and Monday to Friday days or evenings¹¹ in the winter. Virtually all work completed over the weekends, including all snow and ice removal, results in overtime.

Staff are not scheduled to work in the Surface Operations Branch from 3:30 p.m. Friday until 10:30 p.m. Sunday, or in the summer until Monday morning, with the exception of a small group responsible for the late night clean-up of the downtown bar and tourist areas (street sweeping, litter control and pick-up, etc.) and a very small core of on-call staff. The rest of the summer staff all work days from Monday to Friday. In the winter, the Roads Division have employees scheduled to work days from Monday to Friday and nights from Sunday to Thursday. In the summer and winter, Forestry and Parks employees also work days, Monday to Friday.

This means that 12 months of the year, there are essentially no crews regularly scheduled to work Roads from 3:30 p.m. Friday until 10:30 p.m. Sunday. However, many of the activities that are performed by the Branch are weather dependent or not restricted to occurring between 8:00 a.m. Monday and 3:30 p.m. Friday. A simple incident such as a dead animal or debris from a traffic accident on the highway at any point during the weekend would result in one or two persons who are on-call coming in and being paid a minimum of four hours to deal with the situation. If there were ten

¹¹ In order to achieve 24 hour coverage, especially in the winter, schedules are comprised of days from 7am-3:30pm, with the potential to stay 4 hours later and nights from 10:30pm-7am with the potential to come in 4 hours earlier. Staff on call are paid for 3 hours pay plus time and a half if they are called in, as per the collective agreement.

incidents scattered across the geographic area, up to 10 or 20 people would be called in and paid a four-hour minimum each (plus the three-hour on call pay).

While limited standard overtime reports are available, we were able to download information and compile some statistics while conducting the audit. The overtime reports we did receive did not indicate the location so we were not able to identify whether high overtime was associated with specific yards. To further complicate analysis, many staff work at different yards in the winter and summer.

For <u>all</u> Employees receiving overtime	
Number of employees receiving overtime	727
Average number of hours worked per employee	254
Average rate of pay per employee	\$33
Average amount earned per employee	\$8,361

For Employees receiving overtime >\$5000	
Number of employees receiving overtime >\$5,000	495
Average number of hours worked per employee	338
Average rate of pay per employee	\$33
Average amount earned per employee earning > \$5,000	\$11,246

Table 7 - Analysis of Employee Overtime for the Twelve months ended April 30, 2006

Note, these amounts exclude on-call and shift premiums. Staff can also bank up to 100 hours of time off in lieu (TOIL) and as the banked time is drawn down in can be replenished.

While winter operations were outside the scope of our work and not thoroughly investigated, some observations were made. A balance must be achieved, especially for weather-dependant functions such as snow removal, salt application, etc., between too many permanent staff who are not occupied at all times throughout the year and paying overtime for staff on an as-needed basis. In many yards two winter shifts operate from approximately 7:00 a.m.-3:30 p.m. and 10:30 p.m.-7:00 a.m. If needed, staff from the first shift can stay four hours later and the second shift can come in four hours early to cover the 24-hour period. This alternative has been selected over three eight-hour shifts. It is a popular scenario in Southern Ontario; however, given the higher snow volumes in Eastern Ontario it may not be appropriate for Ottawa.

Average snow fall for season	202 cm. (6.6 feet)
Number of days with temps less than 0c	153
Number of days with snowfalls greater than 5 cm.	14
Number of days with snow cover greater than 5cm. (Number of days where drifting can occur)	107

Table 8 - Ottawa weather data

Based on our calculations and given the above-noted statistics, it would appear that winter overtime is excessive, but it was beyond the scope of this audit to further analyse the problem.

The lack of consistent approaches, policies, procedures and systems among yards also makes the problem more difficult to evaluate. For example:

- A member of the audit team observed a weekend crew (earning overtime) removing ice from the roads in the spring of 2006 just a few days prior to the street sweepers cleaning the streets. If the street cleaning had been delayed until the snow and ice melted the overtime would have been avoided.
- In response to a tip received from the Fraud and Waste hotline, the Office of the Auditor General hired a private investigator to follow and observe a crew in March 2006, from 6:30 a.m. to 3:30 p.m. Between 10:17 a.m. and 1:09 p.m. – the crew being observed filled one pothole; the remainder of time was spent at the yard, two restaurants and a bank. As crew performance is not closely monitored and specific goals are not established, it would be difficult for a Supervisor to be aware of situations such as this.

In general, the lack of consistent decisions regarding the use and approval of overtime stems from a lack of standard operating procedures, a lack of analysis of best staffing approach and a lack of shared resources among yards. Staggering of shifts would most likely offer more robust and efficient staff management options and reduce overtime costs.

Recommendation 21

That Surface Operations Branch develop and implement standard policies and procedures to reduce both routine “overtime” work and on-call work be scheduled.

Management Response

Management agrees with this recommendation.

New policies and procedures, such as the alternative shift arrangements for 24/7 coverage in the downtown area and the shift start time procedures were implemented on November 15, 2006 for the 2006/2007 winter season.

These measures have already resulted in a \$200,000 reduction in overtime costs. The Branch continues to work in developing and implementing policies and procedures to reduce costs incurred with overtime and on-call work. The Branch manages its overtime in accordance with the draft Corporate Overtime Policy.

Recommendation 22

That Surface Operations Branch explore new and innovative staffing schedules to optimize staff costs and productivity including seven day shifts, three shifts per day, staggered shifts, shared on-call, etc.

Management Response

Management agrees with this recommendation and it is already in progress. Assessment and implementation of timelines are being determined.

Recommendation 23

That Surface Operations Branch calculate whether they have the best complement of full-time workers to optimize the use of overtime and salaries.

Management Response

Management agrees with this recommendation.

The operational planning initiative in Q1 2008 will enable the Branch to better quantify resource needs to meet service demands. This will be compared with available staff time, overtime utilization, productivity improvement opportunities, contracting mix, and alternative service delivery options to identify the best complement of full-time workers for the Branch.

3.5.4 Levels of management and Supervisors

All yards have their own organizational structure. (Refer to Table 3, Section 2.3 Staffing.)

While not all yards have the same reporting structure, Table 3, Section 2.3 Staffing presents a fair representation of how most groups operate. Note that the senior level of managers was restructured during the audit based on SAI and boundary redefinition. At the commencement of the audit, the groups were sub-divided into two groups: Urban Roads, Suburban/Rural Roads and Forestry/Parks. The reporting structure below this level remained essentially the same.

Based on our review of operations and discussions with managers and supervisors, we believe that in some areas there are too many layers of management. This results in inefficiencies due to a lack of delegation, redundancy and lack of clarity of roles and responsibilities. Many managers spend too much time supervising in the field. This is in part due to a lack of formal, regular reporting mechanisms designed to present overviews of operations and highlight problem areas in order to assist and facilitate managers when determining where to focus their time and energy.

Recommendation 24

That Surface Operations Branch streamline and reduce the management levels of the organizational structure and re-deploy redundant personnel into other areas identified in this report (e.g. road patrols).

Management Response

Management agrees with this recommendation and is already in progress.

The Strategic Alignment Initiative Program has initiated a project that forms part of the Transition Manager's Responsibility, where a team has been created to review the supervisory alignment and number of operational units. The work is currently underway working towards completion for Q4 2007.

3.5.5 Vacation and Lieu Time Banking

The productivity of the work force in the summer is diminished as heavy equipment sits idle while staff are on vacation (and off work due to the time off in lieu policy).

Many of the staff are eligible for five to seven weeks of vacation. Time off (excluding certified sick leave) based on length of service is as follows:

Length of Service	Vacation (weeks)	Uncertified sick days (weeks)	TOIL	Total range
<7 years	3	0 - 1.5	2.5	3-7
7-17 years	4	0 - 1.5	2.5	4-8
17-23 years	5	0 - 1.5	2.5	5-9
23-30 years	6	0 - 1.5	2.5	6-10
>30 years	7	0 - 1.5	2.5	7-11

Table 9 – Summary of Vacation and Time Off Benefits

The collective agreement provides each worker to bank, as lieu time, up to 100 hours (2.5 weeks) of overtime. This time is taken and booked as vacation.

The collective agreement provides for a cumulative of eight days uncertified leave within a fiscal year before a medical certificate is required (CUPE 503 Inside/Outside). The average taken is 5.35 days. For the period January 1 to December 31, 2006, 133 CUPE 503 Inside/Outside employees had cumulative uncertified sick leave days greater than the eight-day limit prescribed under their collective agreement. Time off is allowed for other items also including certified sick leave, compassionate leave, union business, jury duty, etc. We were told that the Central District shuts down its operations for concrete and only responds to emergencies for three weeks in the summer. Note this is also the time when the City roads are less busy, yet the equipment sits idle for three weeks. Vacation should not be scheduled in peak work seasons.

The following table indicates two scenarios for time off. In the best-case scenario for the City, workers can be productive up to 1,790 hours and in the worst 1,410 hours.

	Best case scenario for City	Worst case scenario for City
Total paid hours (40 hours x 52 weeks)	2,080	2,080
Less:		
Vacation 3-7 weeks	120	240
Statutory holidays - 12 days	96	96
Other authorized leave	0	40
Certified sick leave	0	80
Uncertified sick leave	24	64
Time off in lieu of overtime (TOIL)	50	130
Productive Hours	1,790	1,430
% of time paid	86%	68%

Table 10 – Analysis of Productive Hours

A large percentage of the experienced and skilled staff are eligible for 9-11 weeks off, at the time when most asphalt (potholes), concrete (sidewalks) and ironworks (manholes) repairs are made, as well as forestry (tree planting, trimming and removal) and parks (sports fields, grass cutting) is required. This also can result in heavy equipment sitting idle, as there are no operators available.

Although the time off in lieu policy has resulted in a net reduction in overtime costs it has depleted the operating groups of manpower during the summer when they are expected to be productive.

Recommendation 25

That Surface Operations Branch calculate how many person years are lost to the Time Off In Lieu (TOIL) Policy and determine whether they are hiring sufficient full-time, part-time or temporary workers to optimize costs given in lieu time leave and vacations.

Management Response

Management agrees with this recommendation.

The amount of TOIL accumulated annually is available through SAP. The analysis is estimated to be completed by Q1 2008. There is no provision for backfilling for staff during short-term absences. The Branch does make use of temporary staff, students and contracted services to supplement the work of full time staff.

Recommendation 26

That Surface Operations Branch schedule vacations outside peak work seasons.

Management Response

Management agrees with this recommendation and it has already been completed.

Vacation leave is to be taken at a mutually agreeable time and every attempt is made to schedule vacations during non-peak periods. It must be recognized that most wage staff in SOP are multi-tasked and cross-trained to provide maximum flexibility in meeting peak work demands. For example, staff will work in roads on snow clearing operations during the winter and in parks or traffic during the summer. This results in very little non-peak periods for these staff. Work units generally ensure that the number of staff off on vacation leave at any one time is minimized to ensure that the required work can still get done. Also, during the peak holiday season (i.e. summer) students and contracted services are available to supplement the full time staff.

3.5.6 Job Positions

Most workers change jobs every six months; with one job in the winter (e.g. snow removal) and another in the summer (e.g. asphalt repair or parks) making it difficult to supervise staff and resulting in a fluctuating and changing workforce.

Winter Operations are very different from Summer Operations and work requirements within any work unit vary significantly from summer to winter. For example, the demands in Parks are far greater in the summer season than in the winter, while in Roads, there is an increase in the requirement for labour resources in winter, particularly in those work units that operate a day and night shift in the winter season. As a result, workers have a summer assignment and a winter assignment. For many workers, both their assignments are in the same work unit, however, for some it means moving to another work unit. Once they have their summer and winter assignment, it is theirs until they choose to relinquish it.

With respect to filling of vacancies, at the start of each summer and winter season, all full time vacancies are posted and employees are given the opportunity to "bid" or apply for that vacancy. If successful, that then becomes their assignment for as long as they choose. Any vacancies that are left over after completion of the bid board process are immediately filled from the layoff/recall list or from an inventory of external applicants that the Surface Operations Branch has established through a periodic posting of "Ongoing Requirements". If at any time during the year, including between the seasonal bid boards, a vacancy occurs due to retirement or an employee going on long-term disability, etc., the position can be temporarily immediately backfilled using the inventory of applicants established through the Ongoing Requirements job posting. This enables the Branch to keep a full complement of staff at all times with little or no down time.

The Assignment Board procedures give the Branch the ability to backfill positions quickly and run with a full complement of labour resources at all times. The Branch also has the flexibility of moving staff around as required on either a short-term or long-term basis. This process of filling vacancies is far quicker than the normal process of

posting a job for two weeks, interviewing and processing the appointments, which can take four to six weeks to accomplish.

Initially the workers in the outlying areas were reluctant to participate in the process. When junior openings arise in rural garages, operators with seniority apply from the urban area. Once affiliated with the rural garage, these senior operators leave their acquired posting and under seniority terms of the Collective Agreement 'bump' well established rural operators (but with less seniority) thereby forcing a trickle-down change in almost all the rural garage postings. Recently this has changed and there has been more participation and therefore more fairness in the jobs assignment process.

While the Master Assignment Board is working better now, it is difficult to supervise and monitor staff, particularly with respect to absenteeism, performance and other human resources matters.

3.5.7 Impending Loss of Skills

The City is at risk of not being in a position to adequately replace experienced and skilled workers as they retire over the next few years.

A significant portion of the experienced and skilled Surface Operations' work force will be retiring within the next five years, yet there is little succession planning for management and specialized workers such as heavy equipment operators and tree climbers.

In addition, most Area Managers, Zone Supervisors and Maintenance Coordinators have worked their way up through the ranks and have 25-30 years experience. As a result, most are in a position to retire within the next few years.

Many new Roads staff do not have expertise in specialized areas such as grading gravel roads. It is reported that the prohibition on staff training and relatively inadequate grader training being offered, will continue. Inexperienced and untrained staff can cost the City money, particularly in the Roads and Forestry Divisions.

Recommendation 27

That Senior Managers, Zone Supervisors and Maintenance Coordinators receive additional training in basic management skills and become more active in industry associations (e.g. Ontario Good Roads Association) to foster knowledge of industry best practices.

Management Response

Management agrees with this recommendation.

Through the Investment in People project of the Strategic Alignment Initiative Program, a training program has been established for Crew Leaders, Maintenance

Coordinators and Supervisors. The guidelines for enrolment and course content are presently being reviewed by Labour Relations, Human Resources and the Corporate Learning Centre, with an expected completion in Q4 2007.

The Branch is continuously pursuing new initiatives and opportunities for staff training. At the senior level of the Branch, the Management Team has identified a Succession Planning project in its 2007 Branch Workplan.

Recommendation 28

That a training budget be reinstated to a level which will ensure a continued skilled workforce.

Management Response

Management agrees with this recommendation.

Current initiatives, which have been undertaken for example is the development of a Crew Leader, Foreperson and Supervisor Training Program, which will be used as a succession planning mechanism. This will ensure corporate memory and field experience is transferred to junior employees that are being groomed to replace retiring Supervisors. Job descriptions will be created that will set criteria for participation in the training program and will recognize the increasing requirement for technical knowledge, financial accountability, operational planning and ability to deal with human resource issues.

Training programs are being set-up for each level in the supervisory structure to match the duties outlined in the job descriptions. Courses are provided through a combination of internal corporate training initiatives and external experts or organizations that specialize in activities related to Health and Safety or roads, parks or forestry maintenance. Participants in the training programs will be teamed with an experienced supervisor/manager to monitor performance and mentor the individuals on the expectations for each successive step in the structure.

Each candidate in the training program will have to complete all phases of the training and demonstrate the ability to put the training into practice before they will be considered for advancement to the next level supervision. This practice should ensure that promotions are based on merit and a proven ability to perform the increasingly complex requirements of the field supervisors.

Management Level Training with organizations such as OGRA, APWA, etc. have also been initiated. Training priorities will be identified during the 2008 budget.

3.5.8 Employment Standards Act – Hours of Work

The Branch policy and practices are in compliance with the Employment Standards Act.

Both the Highway Traffic Act (HTA) and the Employment Standards Act (ESA) prohibit staff from working beyond certain specific limits. While the HTA is focused on staff

safety the ESA is more general. While staff on winter control operations could previously work around the clock, legislation has been introduced prohibiting it. The Branch has arranged its winter control operations to a best practice model of utilizing two shifts a day: one day shift and one night shift. When continuous operations are required, the day shift stays an additional four hours on overtime and the night shift arrives four hours early on overtime. This ensures compliance with the Employment Standards Act, which was changed recently prohibiting extended hours of work.

However, District Managers were found to have a limited degree of knowledge about the maximum number of hours, which may be performed continuously or within 24 hours or more.

3.6 Compliance with Standards and Industry Best Practices

Provincial standards are established as a minimum standard. Provincial regulations provide municipalities the option of setting their own standards in lieu of following the provincial standards. In the absence of municipal regulations, the provincial regulations apply.

The Provincial Regulation RSO 239/02 reflects both practices that affect the safety of vehicles or pedestrians and preservation standards, which reflect the need to protect capital investments in road infrastructure by proper maintenance practices. Minimum maintenance standards are the basis for establishing whether a municipality has met its due diligence obligations for defending claims of negligence.

The City of Ottawa has a comprehensive set of maintenance standards, referred to as 'Level of Service', that were prepared shortly after amalgamation. The City of Ottawa standards address roads, sidewalks and pathways and are based on a 2004 policy document the City commissioned entitled "Harmonization of Maintenance Standards for Roads, Sidewalks and Paths". The City of Ottawa standards either meet or exceed the Minimum Maintenance Standards for Municipal Highways (MMSMH) requirement in all cases.

As part of the review to harmonize the standards of the pre-amalgamation municipalities, several other municipalities and countries were contacted including Montreal, Calgary, Winnipeg, St. John's, Toronto, Haldimand/Norfolk, Waterloo, Hamilton, Niagara, Washington, Helsinki, Stockholm, Oslo, Denmark (all), Norway (all), and Tucson. These comparatives assessed a range of services from street sweeping and potholes, to removal of snow and ice on roads and sidewalks.

These standards have been adopted by the City of Ottawa although City staff openly discuss their inability to meet many of the standards based on funding shortages, both

capital and operating, and other internal problems, many of which they believe they are addressing as part of the SAI.

In addition, best practices are well established for municipal roads, parks and urban forests. Well-respected groups, such as the Ontario Good Roads Association, exist to facilitate delivery of services, promote the most efficient, effective and economical methods and approaches based on the experience of other municipalities through conferences, training sessions and general publications. The City historically has not utilized these resources to the extent possible.

3.6.1 Road Patrols

The City does not meet minimum road patrol standards as legislated by the Province. This is in contravention of the provincial minimum road standards. The lack of preventative maintenance to the road system is a fundamental driver to the severe reduction in roadway service life and added infrastructure costs.

In a report to the Transportation and Transit Committee and Council in the Spring of 2003, it was stated that *“the provincial minimum standards will result in a formal process where every road in the City of Ottawa will be patrolled on a regular frequency based on road class and each patrol will be documented...roads will be patrolled by driving all roads at an average speed ranging between 20 and 35 km/hr in order to visually observe and report potential hazards”*.

However, the City does not meet its own stated standards for road patrols as staff were directed to reduce road patrol standards under a Universal Program Review.

In 2004, McCormick Rankin Corporation was retained to conduct a study entitled *“Harmonization of Maintenance Standards for Roads, Sidewalks and Pathways”* to establish standard for the City. In this document it was stated that: *“all former municipalities are non-compliant with the Minimum Maintenance Standards for Municipal Highways (MMSMH) for patrolling.”*

During this audit individuals interviewed indicated a decline in road patrolling since amalgamation, indicating a further deterioration since the 2004 City standards were approved. The only roads receiving road patrol were the class 1 roads specifically highway 174 and the transitway, as well as class 2 and 3 (arterials). Patrols are no longer conducted on lower classes of roadways (class 4 and 5) as well as gravel rural roads. Some patrols (road classes 4 and higher) have been abandoned in favour of the Request for Service system. It should be noted that the elimination of road patrols occurred as a decision of Council under the Universal Program Review; with a view to lowering staff costs and risk of liability due to reduced roads management. Budget documents

indicate that a request was put before Council to add eight FTEs¹² to carry out the road patrols. It is not clear when Council will consider this recommendation.

Budget cuts over the years may have played a role in the cutbacks of road patrols. The following table reflects the standard adopted by the City and the MMSMH minimum legal requirement:

Road Maintenance Class		Road Types	Frequency City Standard (Minimum per Provincial Standard)	Audit Based on Audit Interviews
1	A,B	Highest Priority Road	4 times per week (3 times per week)	City staff stated that they meet the Standard – no records to verify
2	A,B	Most Arterials	3 times per week (2 times per week)	City staff stated that they meet the Standard – no records to verify
3	A,B,C	Most Major Collectors	1 time per week (1 time per week)	City staff stated no patrols conducted
4	A,B,C	Most Minor Collectors	1 time per 2 weeks (1 time per 2 weeks)	City staff stated no patrols conducted
5	A,C	Residential Roads & Lanes	1 per month (1 per month)	City staff stated no patrols conducted

Table 11 – City Road Standards for Road Patrols

In general, it is concluded that the roads inspection and patrol program is only in effect for the highest order of roadways and has been abandoned for all other roadways. The public perception that government public roads are under a professionally guided system of review and inspection, which renders them safe and passable under the standard of care enunciated by provincial minimum municipal standards, is incorrect. This may lead to a potentially dangerous situation and increased risk of liability to the municipality.

Through the Universal Program Review, Council approved the elimination of road patrols for lower class roads (classes 3 through 5). This was conducted as a cost cutting measure.

In the absence of road patrols and other forms of documentation it is not possible to determine whether the MMSMH for road conditions are met on a regular basis throughout the year.

One of the areas we questioned was whether or not staff are familiar with the City standards document, and whether they used it in their daily operations. Based on

¹² Actually a reduction in the 21 FTE amalgamation reductions.

interviews it is apparent that some of the districts do while others do not. There is some inconsistency in standards application and in one case a Maintenance Coordinator reported that he had not seen Ottawa's standards document. However, overall, staff responsible for standard of care were aware of City standards, but only held to the need to meet standards on class 1 through 3 roads and the transitway, having been directed to cease all patrolling of class 4 and 5 roads.

The risk and liability of these circumstances, while possibly limited to the City through the passage of by-laws, which forego inspections in favour of added municipal liability, will instead be evidenced through additional vehicle damage and personal risk of injury. The City will incur additional infrastructure costs if "preservation" standards within MMSMH are not maintained and roads are allowed to deteriorate prematurely. In particular on roads left to degenerate until a complaint from residents raises the problem to staff review. In light of indications related to the ineffectiveness of the 3-1-1 Call Centre complaint response system, this is a situation requiring additional review and consideration.

Recommendation 29

That Branch resources be redirected so that Road Patrols are reinstated in accordance with the City's standards.

Management Response

Management agrees in principle with this recommendation.

In May 2003, a report was brought forward to Council recommending (8) FTEs to enable Service Operations to increase road patrol capacity with the objective of meeting road patrol guidelines, however this recommendation was not approved. Furthermore during the 2004 Universal Program Review cuts, \$1.042M associated with road patrol on collector and residential streets were cut from the Surface Operations Branch budget.

3.6.2 Asphalt Roads

Our review of operations and interviews with staff revealed that many City streets are in a poor state.

Several factors were identified:

Road cracks are not routinely sealed

- From a technical perspective, the failure to seal cracks increases the amount of water entering the road base and, in a city like Ottawa where there are frequent freeze/thaw cycles, this will certainly increase the need for more patching work in the spring. We were not surprised then to learn that the major activity carried out in the summer months was patching and adjusting the manholes and ironwork related repairs.

Potholes are not routinely repaired with hot patch method

- Preferred standards for pothole repair (techniques, materials, preparation, etc.) do not appear to be in place and repairs are left to the attending staff person. Equipment and supplies for proper hot patch repair of pothole repair is not generally available.
- Cold patch, a short-term repair, is generally used to address smaller cold weather road repair, with limited winter hot patch asphalt work supported in the suburban and rural area only. A better quality cold patch is used to increase length of repair. However, these cold patch repairs are not tracked and properly repaired with hot patch during the summer in accordance with good practice.

Reduction and/or elimination of road patrols for routine and preventive maintenance

- As discussed in the road patrol section, there is no system of patrolling middle or lower tier roadway for problem identification and organization of repairs. Although some parts of the City are subject to maintenance routines and routes (e.g. beats) there is no overall structured system of the roadway system. We were told that three inspectors go through Central Area each spring and identify major potholes. In the Central Area, West and East suburban and rural areas, patrols are conducted only on arterial roads (class 2 and 3), highway 174 and the transitway. The remainder of asphalt roads identified for repair is driven by Service Requests (complaints) and a casual tracking system (potholes identified by staff by chance).
- Crew assignments generally follow beat systems in the rural and suburban areas; however, the historic City of Ottawa geographic area assigns crews based on historical approaches to litter clean up, performing almost no preventative maintenance activities.
- Overall reductions in asphalt capital overlay programs have resulted in poorer quality surfaces.

No mechanism for tracking

- As the findings of most road patrols and the time to repair are not tracked on a global basis (e.g. there is no reporting system which rolls this information up, although in most cases individual situations can be tracked through a process) we could not comment on whether City standards are routinely met.

In addition, global warming as also resulted in an increased number of winter freeze-thaw cycles resulting in an increased incidence of potholes.

As a result, greater infrastructure funds are required to ultimately repair roads due to the deterioration caused by not repairing small problems early.

The Highway Traffic Act was amended recently. The section entitled “*Book 7 Temporary Conditions*” sets out standards for full or partial lane closures on various roads by

classification and “requires all crews working on road to have a written traffic operation plan on hand”. Some of the districts provided them for the workers and others did not.

Recommendation

NOTE: All recommendations are covered in other areas of this report including:

- Implementation of a systematic approach to planning
- Adoption of standard operating procedures which reflect generally accepted best practices to meet City standards
- Adoption of better management and supervisory practices

3.6.3 Gravel Roads

Gravel roads are often maintained at a level below Ontario best practices due in part to inexperienced grader operators and the elimination of roadway patrols to verify gravel road conditions.

While staff identified that some rural roads are now seeing improvement in the addition of resurfacing gravel (approximately 3 inches (75 mm) every four years), in general, gravel roads were identified by staff as being below standard. Several factors were identified:

Significant loss of experienced grader operators at amalgamation

Transfer of inexperienced operators to grading operations

- Poorly trained operators are unaware of how to re-establish a roadway crown with a reasonable number of grader passes often leaving relatively flat road surfaces, which rut and deteriorate much more quickly.

Lack of fundamental knowledge

- Questions arose regarding the poor re-use of calcium-laden road materials for spring road repair.
- City standards for gravel (quarry source granular ‘M’, with a high amount of fine materials to allow for good gravel compaction and an improved road surface) are appropriate for Eastern Ontario conditions. However, staff identified that poor quality control goes undetected (e.g. suppliers providing courser, less compactable gravel) leading to significant premature loss of granular material.

Incurrence of unnecessary additional costs

- An instance was recounted to the auditors where approximately 120 loads of shoulder materials were placed in windrows and removed (purportedly to get rid of organic materials) only to then be replaced with new gravel. The gravel, which was removed, was reportedly used by a local farmer as a gravel bed for a new barn. At \$50 to \$75 per load of moderate quality, Granular A pit source gravel, the value of the product delivered to the farmer would be \$6,000 to \$9,000. However the ‘cost’ to

the City would be much greater (creating windrows (grader), loading it (front end loader), hauling it (tri-axial trucks) and rebuilding the road (drawing in replacement gravel), grading, watering, compacting and placement of new calcium dust suppressant). All of this equipment over a ten hour day period would require approximately \$10,000 in rentals and labour and \$20,000 to \$25,000 in materials. Based on information received from staff, we estimate the cost to be in the vicinity of \$30,000 to \$45,000, depending on the distance from the pit to the farm and the vehicle time involved.

- This is not in conformity with industry grading practices aimed at re-using old and new granular materials to build up the road base.

Inappropriate fleet

- Graders recently purchased for road maintenance with 14-foot mulboard blades (bought by Fleet) were not in conformity with Surface Operations Branch specifications (12-foot mulboard) leading to added problems in gravel road maintenance.

Elimination of external grading school training

- It was specifically noted that the grading and maintenance of gravel roads had fallen into disarray due to a 'prohibition' on staff training (e.g. road supervisor training through Ontario Good Roads Association or equivalent), which is a fundamental requirement for gravel road maintenance.

Reductions in shoulder maintenance, ditch clearing and flood control

- The condition of gravel roads, in particular in spring high water table conditions was identified as being compromised by reductions in ditch clearing programs and off-road flood control coordination.
- Ditches are being lost to trees, with SOP acting on a complaint basis only.
- The role of Surface Operations is unclear in some areas such as beaver control within road allowances and private lands flooding, which impact the roadway.
- City standards for shoulder maintenance slopes are not being met.

No mechanism for tracking

- As most gravel roads are not patrolled as frequently as specified in the City standards and the time to repair are not tracked on a global basis (i.e. there is no reporting system which rolls this information up, although in most cases individual situations can be tracked through a process) we could not comment on whether City standards are routinely met.

Recommendation

NOTE: All recommendations are covered in other areas of this report including:

- Implementation of a systematic approach to planning
- Adoption of standard operating procedures which reflect generally accepted best practices to meet City standards
- Adoption of better management and supervisory practices

3.6.4 Sidewalks

Repair needs for concrete sidewalks and curbs over most of the City are left to public complaints with only key areas of the Central Business District being subjected to a visual inspection by staff. Other parts of the City are patrolled annually on a beat system, but these inspections are conducted in a vehicle which is travelling down the roadway and is only able to identify significant shifts in concrete slabs and large potholes.

Staff are aware that sidewalks are subject to standards for maximum slope, although other issues such as acceptable surface conditions, requirements for repair of trip hazards, etc. are not directed by standards.

It was noted that for all areas (excepting busy central area sidewalk routes) sidewalk patrols are conducted while driving a vehicle on the road. In general it is not possible for in-vehicle patrols to inspect sidewalks from a number of meters away. It was noted that the complaints system and 'plow-catches' on raised panels are commonly used to track sidewalk panel deterioration.

Sidewalk panels that have heaved or shifted, resulting in trip hazards and/or blade catch problems, are either replaced by Surface Operations (if fewer than six panels) or raised back into place.

As a result, many sidewalks do not meet City standards resulting in an increased exposure to liability. Also, as with the roads, greater infrastructure is required due to deterioration.

Recommendation

NOTE: All recommendations are covered in other areas of this report including:

- Implementation of a systematic approach to planning
- Adoption of standard operating procedures which reflect generally accepted best practices to meet City standards
- Adoption of better management and supervisory practices

3.7 City's Environmental Strategy for Urban Forests

Approximately 28% of the City's 2,760 km² land area is forested, the majority of which is located within the rural areas of the City. Almost 43%, or 1,200 km², of the City is green space, including forests, natural environment areas, open spaces and more than

890 parks covering 3,220 hectares. The City is also responsible for 200,000 right-of-way trees¹³.

The Official Plan for the City of Ottawa sets a target forest cover of 30%, up from the current 28%.

3.7.1 Policy Documents

The City is becoming more proactive in the preparation of policy documents to manage its urban forests.

New policy initiatives currently in progress will allow Council to more accurately set policy targets and framework. Even with substantive efficiencies in professional practice it is expected that budget issues remain to be addressed in the short term to allow for the organized planning and care of the urban forest. As part of the SAI, the City Forester now reports directly to the Director.

A number of strategic plans that address the environmental goals and strategic commitments have already been directed through the Official Plan and the Environmental Strategy, and consequently are supporting plans to both. Many of these plans are currently underway, and include the following:

- *Forest Strategy* – A strategy to manage and protect the rural and urban forest. This will include consideration of a by-law regulating tree cutting, continuing to naturalize City-owned green spaces, and planting trees on municipal property and in municipal rights of way. This plan will also consider developing current forest management plans for City-owned forests, encouraging private landowners to maintain the health of established forests and trees and expanding the forest cover. (Ottawa 20/20 – Environmental Strategy)
- A Trees and Foundations Damage policy has been approved.
- A Forestry Strategy is also being drafted to enable the group to be more proactive. Detailed management plans have been prepared for specific areas such as the Marlborough, Torbolton, Carp Hills & Pinhey and Long Swamp forests.

While premature, in the future, the Forestry Division could also investigate revenue-generating activities such as an education/interpretation program in community forests with charges for day use of the area. Commercial logging on a sustained yield basis could be considered in the larger community forest tracts. The logging and forest management could be tied in with the interpretive programs set up for educational purposes. Those monies could then be used to fund additional forest related activities.

¹³ Ottawa 2020 – Environmental Strategy

Amalgamation has stressed Forestry Division to the point where it has been forced into a responsive type of practice and away from a proactive, life cycle management style.

Recommendation 30

That the Branch develop a Public Tree By-law and Best Management Practices By-law (Community Forests).

Management Response

Management agrees with this recommendation.

Municipal Trees and Natural Areas Protection By-law 2006-279 was approved in July 2006 and implemented on September 1, 2006. In 2007 a Resource Management Plan for the South March Highlands is under development with subsequent 20-year plans identified for updating as they expire, i.e. Marlborough Forest in 2010.

3.7.2 Routine Maintenance

There is no proactive, routine or preventive maintenance of the City's urban forest due to an overwhelming backlog of liability based, complaint-driven, trimming and removals.

The adoption of a complaint response based system has resulted in lack of proactive management of tree resources, causing further entrenchment of response based system, as non-maintained tree resources are more prone to the effects of storms due to a greater amount of dead wood in trees.

Staff report over 9,000 tree related calls per year from the 3-1-1 Call Centre plus additional requests from By-law Officers for restricted vision of traffic signs, site lines, hazardous trees, etc. Safety is the trigger for crew maintenance activities. In general, there is no preventative maintenance program in Forestry Division and service is responsive only to complaints from the public (3-1-1 Call Centre) and Elected Officials.

There are approximately 44 people in the Forestry Division plus 11 part-time staff - a City Forester, Manager Forestry, 12 Forest Inspectors (2 for advising developers and 1 for Marlborough forest), plus on the operations side a Zone Supervisor, Maintenance Coordinator, 8 Crew Leaders, 13 Crews, 6 Contractors, 1 Clerical Staff and 11 Summer Students (2 for Marlborough forest and the others to trim branches around traffic signs, clear sight lines, fertilize, etc.). Most full-time staff are from the former City of Ottawa.

At their peak, the former City of Ottawa had in excess of 100 people in this group. Through successive budgetary cuts, this was reduced dramatically. At amalgamation, there were approximately 30 people in the group from the former City of Ottawa, 2 from Gloucester and 4 from the former Regional Municipality of Ottawa-Carleton. No other municipalities had a forestry function. Forestry Division now has a much greater territory to manage with a quarter of the staff complement compared to the former City

of Ottawa. It was specifically noted that the forestry budget in 2006 (for a much larger urban area) is now equivalent to the 1998 Forestry budget of the former City of Ottawa.

A lack of Forestry staff results in increased dependence on out-sourcing for services the Division is not able to provide. However, there is a lack of well-qualified tree climbers and tree limbers. The group is trying to use contractors for removals and use their own more experienced staff for trimming.

The Forestry Division should immediately dedicate at least two crews to proactively manage current growing stock through removals and cultural management, adopting as quickly as possible, life cycle management practices, including trimming and cabling, starting with the streets known to have the highest risk.

Recommendation 31

That the Forestry Division develop long-term goals and implement an Urban Forest Management Plan with the objective to replenish older City trees with new stock factoring disease and pest resistant species.

Management Response

Management agrees with this recommendation.

A five year Trees and Forests Maintenance Strategy was approved by Council in October 2006 with funding deferred to the LRFP in 2008. Life cycle trimming was initiated in 2006 and will continue in 2007 in the areas of highest priority, such as those where sensitive marine clay is known to exist to maintain existing trees and the City's tree planting programs will continue to replace trees as they reach the end of their life cycle with species and location appropriate replacements pending priority setting and budget approvals.

3.7.3 Tree Inventory

The Forestry Division does not have the systems required to properly manage the urban forests, most critically a Tree Inventory and Management System.

The Forestry Division does not have the capability to plan scheduled maintenance without a tree inventory system, and is currently not able to generate proper work orders even from the request driven system. As a result, staff can no longer track tree history and produce work orders for routine scheduled maintenance of trees (lack of life cycle management).

The lack of use of available new technology is significantly impairing the effectiveness of the Forestry Division as they are forced to do field visits to determine the type, location, condition of tree, etc. As there is no permanent record, each call requires a physical visit. A significant amount of verification and double-checking with homeowners, Inspectors, Maintenance Coordinators, etc. results if there is a

questionable item. Bad decisions and/or errors can be made with good intentions when trying to be expedient but lacking information.

Several municipalities¹⁴ have adopted newer technologies including personal digital assistants (PDAs) with a global positioning system (GPS) to develop comprehensive tree inventories of urban forest resources. Collection of tree information into PDAs with specialized tree management software facilitates tree maintenance programming and longer term forest management planning. Forest management issues include biodiversity, forest health, age structure, etc.

The Branch should develop, as an interim measure, a database system for tracking input of new tree information and processing of current activity. The system needs to be forward compatible to a new system when adopted and implemented. This will likely require assigning clerical staff to do data entry on a daily basis to facilitate transition to a new system (data entry would be current). The Branch should also complete a City-wide inventory of public trees. This will require the Branch to prepare a business case for the adoption of a new tree management system, which incorporates increased efficiency of staff, etc.

Recommendation 32

That the Branch adopt a tree management system, including a complete tree inventory, ensuring that the system has adequate input, storage, query (for forest management planning) and reporting capabilities including mapping that tie in with the corporate wide GIS if possible.

Management Response

Management agrees with this recommendation which is already in progress.

The five year Trees and Forests Maintenance Strategy, which is completed and was approved by Council, recognizes the requirement to produce and maintain an accurate tree inventory and identifies required staff and equipment resources of approximately \$575,000. Work will progress on a priority basis (core area, boundary trees along woodlots and ravines in suburban areas) in 2007.

3.7.4 Risks to the Existing Urban Forest

The City is increasingly losing mature trees unnecessarily. Trees in the City's older neighbourhoods are increasingly being lost due to disease and decay often due to historical trimming practices and now the elimination of routine maintenance to detect and mitigate resultant stress (trimming and cabling). The City could lose up to 30% of its urban trees (including trees on private property) due to a likely Emerald Ash Borer Infestation and continued Dutch Elm Disease.

¹⁴ Including London, Brantford, Mississauga, Hamilton, Calgary and St. John's

It is the City's policy to utilize good arboricultural activities in accordance with the International Society of Arboriculture (ISA). However, during a tour of the City, we observed numerous instances of poor practices. In particular, Y-shaped trees historically cut around hydro wires, which have not been cabled and continue to be weakened with additional trimming. In addition, in many parks, "whipper-snipping" around tree trunks by Parks and Forestry staff is putting these trees at risk.

Observations include:

Historical trimming practices

- Older trees particularly in older established neighbourhoods, which have been subjected to historical trimming practices are more stressed and are now going untreated as routine maintenance has not been performed for several years.
- This has caused trees to be classical Y-shaped or asymmetrical shaped making them more vulnerable to storm damage.
- The life of these trees could be saved at a relatively low cost if canopies were thinned and the trees were cabled. This would be more cost effective, risk adverse and aesthetically pleasing than waiting for the trees to be "downed" during storms, at uncontrolled times, and then replaced with new small trees. However, current resources restrict extensive cabling practices.

Continued trimming practices

- Trees continue to be trimmed by Hydro Ottawa staff while clearing for hydro lines.
- Planting under hydro lines is old practice and hopefully has ceased. Not planting under hydro lines will avoid future conflict with hydro lines.
- Cabling the canopy will extend the life.

Emerald Ash Borer Infestation

- Ash trees have been used extensively in street tree planting (possibly as high as 30% of all species used). The City may be faced with a potential problem in light of the Emerald Ash Borer Infestation, which has 100% mortality rate.
- Emerald Ash Borer is progressing through Southern Ontario and has crossed the St. Clair River and Detroit River at Windsor. There is a potential risk to the ash trees if an Emerald Ash Borer Infestation breaks out in the community.
- Landscapes may change if all ash trees are affected, yet there has been no planning for this eventuality.

Dutch Elm Disease

- The Forestry Division has not been able to keep up with a Dutch Elm Disease spray program and is therefore losing elm trees.
- There is a risk of losing remaining specimen elm trees.

Damage to Tree Trunks

- Pesticide use has been discouraged in the City, but this has led to aggressive and extensive use of “whipper-snippers”, most prevalently in parks. This is damaging trees by removal of cambium at the base of the tree.

Subdivision Planting

- City standards might not be followed so that plantings are substandard as evidenced in survival rates.

Growing trees on privately owned property in Ottawa presents its own challenges. Much of Ottawa is built on sensitive marine clays. In homes, this has caused increased foundations cracking with settling soils due to drying of these sensitive clays. In trees, this same drying and resultant settling of heavy clay soils has a detrimental effect on the longevity of trees. Winter salt can also be very harmful to trees.

The Forestry Division has practical and useful knowledge to disseminate to the public regarding cultural practices for private and public trees including the selection of the best trees to plant in the Ottawa environment but do not have the resources to effectively share it.

The Forestry Division could develop a plan to extend the life of vulnerable mature trees in the City before they are destroyed by disease and/or extreme weather.

The Forestry Division should also develop guidelines to ensure that all new tree plantings by City staff are of a variety, which can better withstand increased pressure from changing climate. The Division could embark on a public awareness campaign to educate property owners in order to change historical practices and encourage them to buy species more suited to climate and soil. Finally, Forestry Division should adopt best management practices to address the above and coordinate with other respective departments and branches to alleviate poor practice.

The Forestry Division should be culling ash from the existing population as applicable, e.g. not be as lenient in retaining ash as veteran trees. They should be replaced with current pest-free species suitable to site conditions and urban pressures.

The Forestry Strategy, currently being developed should include a plan and related costing to extend the life of vulnerable mature trees in the City, including:

- Tree planting in damage-susceptible, established neighbourhoods in order to allow new stock to establish itself before adjacent trees are lost, to minimize the time frame without trees in the area. The work should be performed in a systematic fashion in order to minimize cost and work efficiently.

- Cabling program of vulnerable trees in a systematic fashion in order to minimize cost and work efficiently.
- Monitoring advances of Emerald Ash Borer by following progress through Federal Agencies that are responsible for tracking progress.
- Invoking an injection program for City owned specimen ash trees prior to disease detection in the Ottawa region.
- Systematically treating all City owned elm trees prior to detection of disease.

Recommendation 33

That the City explore options to consolidate tree trimming with Hydro Ottawa in order to ensure that trees trimmed for hydro lines are not damaging the life expectancy of the tree.

Management Response

Management agrees with this recommendation and the work is already in progress.

The initial meeting was held to review the operations, roles and responsibilities. Arboricultural specifications have been exchanged for comment and the review of professional content.

In 2007, management staff will be pursuing the development of common technical documents. City operations staff will work with their counterparts to maintain consistency in their respective trimming operations and to explore new initiatives such as working cooperatively to plant replacement trees.

Recommendation 34

That the Forestry Division develop guidelines and a public awareness campaign for the public, developers and other municipal branches and departments to promote new tree plantings that are of a variety more suited to the local climate and soil conditions (develop better growing stock able to withstand increased pressure from changing climate).

Management Response

Management agrees with this recommendation.

Forestry Services 2007 workplan includes an increase in internal/external communication and will focus on completion for Q4 2007. Target audiences have been identified i.e. By-law Services, Infrastructure staff, Development Approvals (internal) and local community associations and forestry interest groups (external). Arboricultural and forestry technical information will be consolidated and formatted in conjunction with other Surface Operations Branch initiatives.

3.8 Fleet

The City's Fleet needs to receive a higher level of preventative maintenance action to ensure the equipment works when required and greater storage care needs to be taken to maximize the life span of the equipment.

A large portion of the work conducted by Surface Operations Branch requires the use of large pieces of vehicular equipment (trucks, plows, etc.). During our initial interviews we received many comments indicating a disconnect between Surface Operations and the group which actually purchase and maintain the vehicles.

Since much of the work carried out by Surface Operations requires a lot of complex equipment and heavy-duty vehicles, fleet management plays a key role in influencing the productivity of Surface Operations. The opinion of the staff we interviewed held that Fleet Services Branch didn't share their sense of urgency since they had no direct accountability to the service delivery. Fleet Services Branch is an internal service provider and, although it has no direct contact with the public, their performance is key to the quality of the service delivered by other City operating groups. One Zone Supervisor mentioned that his method of getting good service from Fleet Services Branch was to maintain a close relationship with the staff in the Branch itself. Others reported that the equipment they used from season to season would change. For example: the winter control vehicles they would use this winter may not necessarily be the ones that return to them in the fall. Other times the equipment was sent for repairs and it would be lost within the facility and they would have to go find it to get it repaired. It was noted that repair turn-around at Manotick and Kanata municipal garages was far more reliable than at the Swansea Garage. It was consistently noted that Swansea operations were poorly rationalized, regularly leading to misplaced orders, lost vehicles and missed timelines.

Staff identified a number of circumstances under which Fleet purchasing and repair were inconsistent with identified need (19 tractors and mowers being delivered in October of the year well after grass cutting season; side mowers being purchased from British supplier (instead of mature North American suppliers) with local mechanics unable to make repairs and the parts supply line being unable to meet repair requirements). Staff indicated that their significant knowledge of vehicles types, weights and capabilities were regularly overlooked up the supply chain (rural graders being purchased with 14 foot instead of 12 foot – thus being unacceptable for shoulder grading and grading on smaller rural roads; lighter graders being purchased to save on costs – when lighter grader could not perform ice-blading required).

Staff noted that the fleet in general was in better condition than it was at amalgamation; and that a number of initial problems in daily vehicle maintenance had been worked out with licensed mechanics; with a recovery in driver satisfaction and vehicle care.

Inside heated vehicle storage, while generally satisfactory City-wide, is essential and should be maintained so as to allow for a run-ready fleet status at all hours of the day.

Anecdotally, when we toured the yard, we noticed what poor state the fleet appeared to be in. Many of the truck bodies were rusted and there were signs of advanced corrosion on most of the sander fleet we had seen. We also noticed that the sander bodies, which were stored during the summer, were not “mothballed” for summer storage, but merely parked without anyone preparing them for storage.

The visual condition of some of the truck bodies was very poor. There was ample evidence of advanced corrosion and the floor of one unit has swollen from rusting. At a few work yards, the salt and sand spreader bodies appeared to be parked where they were last used without being prepared for the off-season storage. The cost of a spreader unit is in excess of \$100,000. The cost for a single axle dump truck is in excess of \$75,000. The rusty condition of the vehicles projects a poor corporate image of the City of Ottawa.

Problems in fleet planning, management and readiness appeared to relate to a significant lack of communications between Surface Operations and Fleet Services; due in part to the elimination of vehicle control / management employee(s) within Surface Operations. Significant additional problems appear to relate to Fleet Services procedures and task management. In addition a lack of employee pride, ownership, accountability associated with significant and ineffective change management since amalgamation may have propagated some poor vehicle care practices.

Fleet and specialized equipment will need to be replaced earlier than expected and the lack of preventative maintenance will result in a lower state of preparedness for summer and winter control work and likely would result in departmental obligations and or standards not being met. The Corporate image is negatively affected by the rusty condition of the equipment.

Recommendation 35

That Fleet Services’ management review its practices pertaining to preventative maintenance and off-season storage with a view to optimizing the life span of the equipment.

Management Response

Management agrees with this recommendation.

Work is already in progress as part of Strategic Alignment Initiative Facility rationalization plan. The implementation team will include representation from Fleet Services to assess maintenance impact of inside storage versus outside

particularly during winter season. The Branches will work together in Q3 2007 to ensure the respective accountabilities optimize the lifespan of the equipment.

Recommendation 36

That Surface Operations Branch identify dedicated resources to direct that minimum standards be met in tendering and to coordinate and track maintenance and replacement of vehicles; and that such staff resources be supported by ongoing training on current industry practice and governmental standards related to vehicle and equipment function and purchasing.

Management Response

Surface Operations: Management agrees with part of this recommendation.

The Surface Operations Branch has dedicated a position to provide Fleet with a single point of contact for acquisition requirements. This position will also be working with Fleet Services on the development of a fleet equipment asset management strategy.

Fleet Services: As a Center of Expertise, Fleet Services has the responsibility for planning, acquisition, disposal and replacement of vehicles. As outlined in the Service Level Agreement (SLA), the operator (Surface Operations) is responsible for identifying operational requirements outlining what the equipment is required for. Fleet Services take that information and develops specifications to meet those requirements based on the City of Ottawa's purchasing By-law. Fleet's role is to understand client requirements and provide them with equipment to meet the minimum operational requirements in a cost effective manner.

Management does not agree with the part of the recommendation to provide Surface Operations staff with training on specifications as this would be a duplication of effort within the city, and would contravene the COE model and the SLA. This recommendation states that Surface Operations Branch should be responsible for areas that they are not accountable.

Recommendation 37

That the truck bodies be placed on a rehabilitation program that would see them inspected, sandblasted and re-painted as the rusting begins to appear.

Management Response

Management disagrees with this recommendation.

Fleet Services does not perform any cosmetic repairs for rusting, as it does not affect the operation of the vehicle. The condition of vehicle bodies is monitored as part of the annual inspection program. Structural repair is done when the vehicle does not meet the Ministry of Transportation requirements. Rusting is normally repaired if

it is assessed that the rust will shorten the life of the vehicle. Cosmetic repairs are not done as a matter of course due to the additional cost.

Recommendation 38

That salt and sand spreaders (and other major equipment not in use seasonally) be washed and lubricated to prevent corrosion of the connections, electronics, conveyor systems and moving parts during the off-season.

Management Response

Management agrees with this recommendation.

Washing, lubricating and off-season storage is an operational task and is part of regular seasonal changeover.

Recommendation 39

That indoor storage be considered to keep single season units out of the weather until required; or that other provisions for secure mothballing of equipment be provided.

Management Response

Management agrees with this recommendation.

This will be considered as part of the facility rationalization project currently being undertaken as part of the Strategic Alignment Initiative, completion in Q3 2007.

4 CONCLUSION

The Branch will need to change their way of operating. They must move from reactive, independent localized centres to proactive unified and complimentary centres. Operations must be standardized and based on industry accepted best practices. This does not imply expensive state-of-the-art technologies for the sake of the technology, but rather the most effective, efficient and economical approach to operations, which achieves the City's vision as outlined in strategic documents such as the 20/20 Environmental Strategy and operational policies such as the road maintenance standards.

5 ACKNOWLEDGEMENT

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