

October 6, 2004

To: Audit Committee

From: Auditor General

Subject: CLASS Recreation Registration and Permitting System Information Technology

Review – Economic Development, Culture and Tourism Department

Purpose:

The purpose of this review was to evaulate the information technology management and administration of the CLASS Recreation Registration and Permitting System, in the Parks and Recreation Division of the Economic Development, Culture and Tourism Department.

<u>Financial Implications and Impact Statement</u>:

There are no financial implications resulting from the adoption of this report. However, the adoption of certain recommendations contained in this report will improve internal administrative controls and positively impact the ongoing efficiency of the CLASS System and will ultimately lead to improvements in the protection of the City's assets. The adoption of the recommendations, in our view, can be accommodated with existing resources.

Recommendations:

It is recommended that:

- (1) the Commissioner, Economic Development, Culture and Tourism, develop a longer term strategic plan which provides specific direction to the Information Technology Unit within the Department in regard to:
 - (a) the prioritization of Information Technology projects;
 - (b) the monitoring of the performance of the Information and Technology Unit;
 - (c) the monitoring of the progress of Information Technology projects;

- (d) the approval of Information Technology related acquisitions, including software; and
- (e) such a plan be developed in consultation with senior management of the Corporate Information Technology Division of the Corporate Services Department;
- (2) the Commissioner, Economic Development, Culture and Tourism, establish appropriate performance indicators for the key deliverables and objectives of the Information Technology Unit. These indicators be established for specific system development, system enhancement activities, as well as on-going operations. The Information Technology Unit be required to report on actual performance on a regular basis;
- (3) the Commissioner, Economic Development, Culture and Tourism, ensure that processes are in place to monitor the progress of various information technology projects and steps are taken to ensure that such projects are completed in a reasonable period of time and within budget;
- (4) the Commissioner, Economic Development, Culture and Tourism, ensure that significant technology projects be initiated only after the specific development and approval of a project charter. Such charter to include:
 - (a) specific details and objectives on the project;
 - (b) specific timeframes: and
 - (c) the need for regular progress reporting;
- (5) the Commissioner, Economic Development, Culture and Tourism, ensure that the decision not to proceed with the upgrade to the CLASS Recreation Registration and Permitting System is appropriately authorized and that such decisions and all supporting documentation is retained on file;
- (6) the Commissioner, Economic Development, Culture and Tourism, in consultation with the City Solicitor review the potential of revising the agreement with Class Software Solutions Ltd., in order to ensure that the level of support provided by the company extends to the version of software currently utilized by the City;
- (7) the Commissioner, Economic Development, Culture and Tourism, ensure that a copy of the Source Code and Source Code Documentation for the CLASS Recreation Registration and Permitting software is held in escrow and that it is maintained on an ongoing basis;
- (8) the Commissioner, Economic Development, Culture and Tourism, ensure that a business continuity plan that integrates operational needs with the technology component of the CLASS Recreation Registration and Permitting System is prepared, and that such a plan is documented and tested on a regular basis and this plan be incorporated into the Department's overall disaster recovery plan;

- (9) the Commissioner, Economic Development, Culture and Tourism:
 - (a) ensure responsibility for managing security for the CLASS Recreation Registration and Permitting System is clearly assigned;
 - (b) conduct an assessment of the risks associated with the CLASS Recreation Registration and Permitting System and determine the level of security required; and
 - (c) establish specific security standards complete with procedures to support those standards and communicate expectations to employees;
- (10) the Commissioner, Economic Development, Culture and Tourism, implement formal procedures for granting or removing a user's access to the CLASS Recreation Registration and Permitting System. These procedures to include, but not be limited to approval requirements, assigning user group(s), process for handling transferred and terminated employees and the maintenance of appropriate documentation in support of the access privileges granted;
- (11) the Commissioner, Economic Development, Culture and Tourism, use the information on employee terminations from the City's Human Resources system for the purposes of removing access privileges of individuals who no longer work for the City;
- (12) the Commissioner, Economic Development, Culture and Tourism, direct that a review of current user access rights be performed and that such a review be conducted on a regular basis to confirm that user access rights are compatible with job functions and responsibilities;
- (13) the Commissioner, Economic Development, Culture and Tourism, ensure that password management practices, such as setting a standard minimum length for passwords, requiring regular password changes and locking out users after three unsuccessful attempts, are implemented;
- (14) the Commissioner, Economic Development, Culture and Tourism:
 - (a) review the System Administrator function to ensure that the number of individuals assigned such duties is limited to that required for the efficient and effective operation of the CLASS Recreation Registration and Permitting System; and
 - (b) ensure that the password to the System Administrator login identification is changed and a procedure implemented to change the password on a regular basis;

- (15) the Commissioner, Economic Development, Culture and Tourism, establish a policy and corresponding procedures for archiving records maintained on the CLASS Recreation Registration and Permitting System; and
- (16) the Commissioner, Economic Development, Culture and Tourism, ensure that:
 - (a) the development of reports follow a process that includes defining the user's requirements, obtaining the necessary approval, testing for accuracy, receiving final user acceptance before adding a customized report to the CLASS Recreation Registration and Permitting System and retaining appropriate documentation; and
 - (b) customized reports are available to all appropriate staff members.

Background:

One of the City of Toronto's service goals is to ensure that "the people in the diverse communities of Toronto will have full and equitable access to high calibre, locally responsible recreational programs, efficiently operated facilities and safe, clean and beautiful parks, open spaces, ravines and forests." The Economic Development, Culture and Tourism Department, is accountable for meeting this service goal.

In order to assist the Economic Development, Culture and Tourism Department in meeting its goals and in response to computer concerns relating to Year 2000, the Department recommended the purchase and implementation of a single City-wide and fully integrated program registration, facility permitting and facility scheduling system. Proprietary software from Class Software Solutions Ltd., was selected as the system of choice to support the administration and control of the City's parks and recreation operations. The cost of the software including costs relating to implementation assistance was approximately \$1.5 million.

The CLASS Recreation Registration System is used by a large number of cities in Canada including Ottawa, Calgary, North Vancouver and Mississauga and is designed to manage program registration, administer facility bookings, control memberships, provide point-of-sale recording, monitor revenues and process payments. The Department through a further initiative has introduced a facility which allows individuals to register for programs on-line using the Internet.

The CLASS Recreation Registration and Permitting System is the primary resource available to the Department to record and track registration and permitting activity including payments, refunds and collection of receivables. The System is directly linked to 175 facilities and assists with program and revenue management for over 450 facilities. In 2003, more than 455,000 registrations were processed through CLASS, generating revenues in excess of \$18 million,. In addition, 330,000 facility bookings were also handled by the System, covering more than 7.8 million hours of facility rentals and in excess of \$15 million in revenue.

Audit Objectives and Scope

The overall objective of this review was to assess the information technology practices used to administer, manage and maintain the CLASS Recreation Registration and Permitting System.

Our examination included a review of:

- the alignment of the strategic information technology plan for the CLASS Recreation Registration and Permitting System with the Parks and Recreation Division's strategic business plan;
- the processes in place to monitor information technology processes and performance;
- the level of service provided by the Information Technology Unit that supports CLASS;
- the control over services provided by the System vendor and payments made to the vendor;
- the availability of the System to meet the processing and activity demands of the users;
- the ability of the Economic Development, Culture and Tourism Department to recover the System and continue operations if a significant non-anticipated event were to occur;
- the security practices and procedures governing transactions and data handled by the System; and
- the strategy and plan in place for making changes to the System.

Our review was based on published standards, primarily the Control Objectives for Information Technology issued by the Information System and Control Association.

The scope of our audit included discussions with staff, a review and analysis of relevant policies, procedures and related documents and included such tests and other procedures, as we considered necessary in the circumstances.

We have not conducted a review of the acquisition process relating to CLASS, nor have we determined whether or not the final costs were within the approved project budget. We have reviewed, however, the extent of software licences acquired from the software vendor in 1999. Details of the licences, including the costs, are included in a separate confidential report to the Audit Committee, dated October 7, 2004, entitled "Licence Costs Relating to the CLASS Recreation Registration and Permitting System Information Technology Review". Information relating to the costs of the licences is proprietary confidential information and as such, this information, as well as our recommendations pertaining thereto, are included in our In Camera report.

A summary of the major issues identified during our review is included in the following Summary of Significant Observations. Further details relating to each one of these observations, along with our recommendations, is provided in the body of the report.

Summary of Significant Observations

- information technology projects are not prioritized or approved by management. A long-term strategic plan in connection with future technology development does not exist;
- there are no performance indicators or performance measurement processes to assess the effectiveness of the Information Technology Unit supporting the CLASS System;
- although some contingency planning has been done in relation to CLASS, a comprehensive business continuity plan to ensure the Department can continue to offer services in the event of an unanticipated event does not exist;
- security processes need to be improved. No one individual has been assigned responsibility for ensuring the System is secure. There has not been an assessment of the risks associated with the CLASS System and specific security standards have not been developed;
- there are no formal procedures to grant or delete users access to the System. User identifications can remain active for a significant time period after employees leave the City and there is lack of evidence that a user's access to the System has been authorized;
- password controls require improvements. There is no requirement that a password be a minimum length. There is no requirement to change passwords regularly and there are no procedures to lock user identifications after a set number of unsuccessful access attempts;
- there are no criteria for archiving files or data from the System. The absence of archiving can affect system performance and increase hardware demands as data accumulates in the operational environment; and
- many customized reports have been developed but only a limited number are actually being used. There is no process to ensure user needs are clear prior to developing reports, nor that their needs have been met once the report has been developed.

Comments:

Strategic Plan / Technology Direction

The Economic Development, Culture and Tourism Department administers its own Information Technology Unit within the Department's organization structure. The Information Technology Unit is responsible for:

- systems planning, including the Department's Information Technology strategy;
- network communications and hardware;
- business productivity tools, including desktop applications, e-mail, Corporate systems; and
- business applications that are unique to the Department, including registration and permitting, customer contact management, tree management and parks irrigation.

The Manager of the Information Technology Unit reports to the Director, Administration and Support Services, who in turn reports directly to the Commissioner. Although the Information Technology Unit within the Department liaises, consults and works with the Corporate Information Technology Division, its primary focus and accountability is meeting the needs of the Economic Development, Culture and Tourism Department.

Based on our review we have determined that the Information Technology Unit has not yet developed a long-term plan and consequently, has not prioritized its future information technology initiatives and requirements. A strategic technology plan should be based on the Department's business plan. In June 2001, Council directed the Commissioner, Economic Development, Culture and Tourism to develop such a plan. The requested plan was completed and approved by Council in July 2004. With the approval of this plan, staff are now in a position to prepare a formal technology strategic plan to support the business activity within the Parks and Recreation Division.

Although management of the Information Technology Unit is aware of the need for long term strategic planning, there is no formal approach to determine:

- how the information technology plan should be developed;
- who should participate;
- what is to be included in such a plan;
- how often the plan should be prepared;
- the frequency of plan updates; and
- who is required to approve the plan.

Without such a framework, there is the potential that information technology initiatives and resources may not be aligned with current and future business strategies either at the Division, Department or on a Corporate level.

Recommendations:

- 1. The Commissioner, Economic Development, Culture and Tourism, develop a longer term strategic plan which provides specific direction to the Information Technology Unit within the Department in regard to:
 - (a) the prioritization of Information Technology projects;

- (b) the monitoring of the performance of the Information and Technology Unit;
- (c) the monitoring of the progress of Information Technology projects;
- (d) the approval of Information Technology related acquisitions, including software; and
- (e) such a plan be developed in consultation with senior management of the Corporate Information Technology Division of the Corporate Services Department.

Acquisition of the CLASS Recreation Registration and Permitting System

When the City purchased the CLASS Recreation Registration and Permitting System in 1999, it purchased various modules and features. As the detailed licensing costs paid by the City is confidential proprietary information, an analysis of the number of licences purchased and the price paid is provided in a separate confidential report by the Auditor General.

We have specific comments and recommendations relating to the licensing component of the software acquisition which is also included in the In Camera report.

Monitoring Information Technology Processes and Performance

The effectiveness of the Information Technology Unit in supporting the CLASS Recreation Registration and Permitting System depends on the extent to which it achieves its objectives and provides value-added services to the Department.

Information on the Unit's performance is required for good management and effective governance. Reporting on performance has a number of benefits. Specifically, it can promote accountability, provide information to improve services and serve as an incentive for the Information Technology Unit to manage for the results they have set out to achieve in supporting the CLASS Recreation Registration and Permitting System.

We reviewed the Systems and procedures used by the Information Technology Unit to evaluate its effectiveness in delivering information technology services related to the CLASS Recreation Registration and Permitting System. Performance measures are not used to assess the Information Technology Unit's performance in achieving the overall strategic plan, or the objectives and goals for the CLASS Recreation Registration and Permitting System. Consequently, it is difficult to establish accountability for results and services provided and to facilitate the identification of problem areas and service improvements required.

Recommendation:

2. The Commissioner, Economic Development, Culture and Tourism, establish appropriate performance indicators for the key deliverables and objectives of the Information

Technology Unit. These indicators be established for specific System development, system enhancement activities, as well as on-going operations. The Information Technology Unit be required to report on actual performance on a regular basis.

Management of Projects

There is no process in place to ensure that information technology projects are effectively managed or that formal mechanisms exists to monitor project progress. Such processes are normally employed to improve the likelihood that deliverables will be met and to avoid inefficiencies, unnecessary costs, control weaknesses, delays in implementation and cost overruns.

Although a more rigorous project management approach has been taken in some of the more recent projects undertaken by the Department, such as the e-Connect project, the Department needs to ensure that these practices are applied to all major projects.

Recommendations:

- 3. The Commissioner, Economic Development, Culture and Tourism, ensure that processes are in place to monitor the progress of various information technology projects and steps are taken to ensure that such projects are completed in a reasonable period of time and within budget.
- 4. The Commissioner, Economic Development, Culture and Tourism, ensure that significant technology projects be initiated only after the specific development and approval of a project charter. Such charter to include:
 - (a) specific details and objectives on the project;
 - (b) specific timeframes; and
 - (c) the need for regular progress reporting.

Third Party Services

Payments for services provided by the software vendor, Class Software Solutions Ltd., were appropriately documented, authorized and consistent with the terms of the Agreement between the City and the vendor.

The Agreement between the City and Class Software Solutions Ltd., states that the vendor is contractually obligated to support only the latest two versions of its software. Support for releases prior to the latest two versions is at the discretion of the vendor. The City is operating with software that is four releases prior to the current version. Staff cites the limited incremental value of subsequent upgrades compared to the effort and cost involved in upgrading the software as the reason for operating with an older version. Historically, the vendor has supported older versions of the application.

Since under these circumstances, any support received is due to the vendor's goodwill rather than any contractual arrangement, the overall level of risk associated with maintaining the CLASS Recreation Registration and Permitting System is increased. Therefore, the appropriate level of approval and documents supporting management's acceptance of the added risk should remain on file. We were unable to find evidence supporting such decisions and were informed that the management trail for these decisions often consists of various emails.

Recommendations:

- 5. The Commissioner, Economic Development, Culture and Tourism, ensure that the decision not to proceed with the upgrade to the CLASS Recreation Registration and Permitting System is appropriately authorized and that such decisions and all supporting documentation is retained on file.
- 6. The Commissioner, Economic Development, Culture and Tourism, in consultation with the City Solicitor review the potential of revising the agreement with Class Software Solutions Ltd., in order to ensure that the level of support provided by the company extends to the version of software currently utilized by the City.

For an annual fee of \$100, the City is entitled to hold in escrow the "source code" of the CLASS Recreation Registration and Permitting System software and the corresponding Source Code Documentation. An individual in possession of the source code would have the information necessary to modify the system in a situation where the vendor fails to perform or to continue to perform its obligations to provide software support in accordance with the Agreement. The Economic Development, Culture and Tourism Department has not exercised its option to hold the software in escrow as provided for in the Agreement.

Recommendation:

7. The Commissioner, Economic Development, Culture and Tourism, ensure that a copy of the Source Code and Source Code Documentation for the CLASS Recreation Registration and Permitting software is held in escrow and that it is maintained on an ongoing basis.

Business Continuity Plan

A Business Continuity Plan provides the framework for a controlled response to emergency situations and how to recover from such events regardless of how unlikely they may seem. In any business environment, whether it is the public sector or private industry, there needs to be a commitment that a critical system and the associated business functions are maintained and working in the event of business disruptions. The loss of critical data or computing facilities could have a significant impact on the City's residents and also result in financial losses to the City.

The Economic Development, Culture and Tourism Department has not performed a risk assessment of the applications and information technology services, which are required to support their business. The primary goal of the risk assessment is to identify the applications and services which need to be restored and the timeframes in which they need to be restored. It will identify such issues as the impact to the business and the amount of data loss which will be acceptable to the City, which in turn will determine the backup strategy that is required.

As part of the implementation process to allow individuals to register for programs using the Internet, the Parks and Recreation Division drafted a contingency plan for dealing with system failures on or around key registration periods. Although this is a positive first step, it needs to be expanded and integrated with the overall Business Continuity Plan for the Economic Development, Culture and Tourism Department.

Recommendation:

8. The Commissioner, Economic Development, Culture and Tourism, ensure that a business continuity plan that integrates operational needs with the technology component of the CLASS Recreation Registration and Permitting System is prepared and that such a plan is documented and tested on a regular basis and this plan be incorporated into the Department's overall disaster recovery plan.

Security

The protection of data processed by the CLASS Recreation Registration and Permitting System is critical in ensuring its integrity of data is maintained and that it is protected from unauthorized changes or access. In June 2004, the Corporate Access and Privacy Office issued a Privacy Impact Assessment Report. The assessment included comments on the collection, use, disclosure, sharing, accuracy, retention and disposal of personal information, as well as procedures for accessing and correcting personal information. The assessment also included several comments on the topic of security dealing with policies and procedures, system access and passwords. The following comments in this report are consistent with certain of the issues raised in the privacy assessment.

As the owner of the CLASS Recreation Registration and Permitting System, the Economic Development, Culture and Tourism Department is responsible for the accuracy, integrity and confidentiality of the computer based information. This responsibility requires the Department to establish security standards complete with the appropriate procedures to ensure security requirements are commensurate with the value of the computer based information assets. Responsibility for the security function has not been assigned to any particular individual. In addition, the Department does not have clearly articulated security standards or guidelines.

Those assigned the task of administering the level of security accorded the system are required to do so without clear direction. The absence of such a guideline or directive outlining the Department's ethics, data ownership, privacy requirements and the desired balance between operational and protection needs is of particular concern when changes are made to the functionality of the system. The recent implementation of new functionality, which allows

individuals to register for courses through the Internet, a process with significant security considerations, is an example of such a change.

The lack of clearly thought out and implemented security standards or guidelines increases the risk that data may be compromised and unauthorized access to critical data and resources may go unnoticed. When security is inadequate, it puts at risk the integrity and reliability of the data on which the business user depends, invariably affecting the effectiveness and efficiency of the application.

Recommendation:

- 9. The Commissioner, Economic Development, Culture and Tourism:
 - (a) ensure responsibility for managing security for the CLASS Recreation Registration and Permitting System is clearly assigned;
 - (b) conduct an assessment of the risks associated with the CLASS Recreation Registration and Permitting System and determine the level of security required; and
 - (c) establish specific security standards complete with procedures to support those standards and communicate expectations to employees.

Granting Access to the Users

Giving a user the ability to view, add, change, or delete data on the CLASS Recreation Registration and Permitting System is a two step process. The first step is to grant the individual access to the System and the second is to provide the ability to perform various tasks such as input data, edit data, produce reports, etc. as required by the individual's work related responsibilities.

The CLASS Recreation Registration and Permitting System provides users the ability to perform various tasks through the use of a number of defined "user groups", designed to allow an employee to complete his or her assigned tasks. Each user group has a predefined set of privileges on the System, which dictate which menus, data, functions and reports all members of that group can access. For example, an employee required to register individuals for programs would be assigned to a user group that is designed to provide the ability to add, change, delete or view data necessary to carry out that particular function.

The practice of the Department, and a general best practice, is to grant a user access to the System only after the user has been trained on using the System. However, there are no formal procedures or standard forms used in adding, changing, or deleting a user from the CLASS Recreation Registration and Permitting System. This situation increases the risk that inappropriate access to the CLASS Recreation Registration and Permitting System may be granted.

Deleting or Suspending a User's Access

Removing terminated employees from the System in a timely manner is a desired objective to minimize the risk associated with access granted to individuals. Current procedures do not provide for the removal of terminated employees in a timely manner. Complicating this weakness is the fact that the Parks and Recreation Division employs many part time staff, including students, which results in a high staff turnover rate. In our sample review of 50 user accounts, we found seven cases where user identifications of the terminated employees were still active.

Currently, a report is generated from the System every three months and used by the Information Technology Unit to remove individuals from the System. This report is a list of individuals who have not had any activity on the System in the previous three months. Consequently, the earliest a terminated employee would be removed from the System is three months after the termination date.

We also observed that there are no regular periodic reviews of access privileges granted users to ensure the access is commensurate with the duties required to fulfill the users' responsibilities. The last full review of the System access and privileges provided individuals was in early 2002.

Recommendations:

- 10. The Commissioner, Economic Development, Culture and Tourism, implement formal procedures for granting or removing a user's access to the CLASS Recreation Registration and Permitting System. These procedures to include, but not be limited to approval requirements, assigning user group(s), process for handling transferred and terminated employees and the maintenance of appropriate documentation in support of the access privileges granted.
- 11. The Commissioner, Economic Development, Culture and Tourism, use the information on employee terminations from the City's Human Resources system for the purposes of removing access privileges of individuals who no longer work for the City.
- 12. The Commissioner, Economic Development, Culture and Tourism, direct that a review of current user access rights be performed and that such a review be conducted on a regular basis to confirm that user access rights are compatible with job functions and responsibilities.

Management of User Identifications and Passwords

Access to a system is normally granted after a user enters a valid user identification combined with a password. Once the correct combination of these two items is entered, the user is granted access to the System.

Many of the standard practices associated with passwords are not in effect for the System. For example:

- the user is not required to change the password at the time of initial logon;
- there is no minimum password length;
- the user is not forced to periodically change the password; and
- the CLASS Recreation Registration and Permitting System is not programmed to lock out a user after a defined number, (usually three) of unsuccessful logon attempts.

Recommendation:

13. The Commissioner, Economic Development, Culture and Tourism, ensure that password management practices, such as setting a standard minimum length for passwords, requiring regular password changes and locking out users after three unsuccessful attempts, are implemented.

System Administrator

System administrators for any system play an important role in performing responsibilities to ensure the System continues to function. In order for System Administrators to perform their duties, they must be given wide-ranging access to the System. Consequently, the usual practice is to limit the number of individuals assigned this role.

Six individuals assigned the System Administrator role have wide ranging access to the System. We were also informed that the password for this particular login ID has not been changed since April 2003.

To guarantee maximum security over user and access permissions, the authority to grant and implement access to the System should be divided. The ability to add or delete an individual from a particular user group should be segregated from the ability to create, change or delete a user group. The current design of the CLASS Recreation Registration and Permitting System does not allow the segregation of these functions, which have been assigned to the System Administrator user group. The City has requested the vendor to address this weakness and will be unable to segregate the creation of user groups and assignment of users to groups until the software is modified by the vendor.

Recommendation:

- 14. The Commissioner, Economic Development, Culture and Tourism:
 - (a) review the System Administrator function to ensure that the number of individuals assigned such duties is limited to that required for the efficient and effective operation of the CLASS Recreation Registration and Permitting System; and

(b) ensure that the password to the System Administrator login identification is changed and a procedure implemented to change the password on a regular basis.

Archiving of Records

Records created through the use of the CLASS Recreation Registration and Permitting System are not archived nor are there policies and procedures outlining when and how records should be archived. Allowing the volume of records on the System to increase requires more storage space increasing costs and can impact the performance of the System.

Recommendation:

15. The Commissioner, Economic Development, Culture and Tourism, establish a policy and corresponding procedures for archiving records maintained on the CLASS Recreation Registration and Permitting System.

Customized Reports

Although many customized reports have been developed for the CLASS Recreation Registration and Permitting System, a limited number of reports are actually being used by staff to manage the effective and efficient delivery of the services it provides. Often, reports are developed and implemented without all users being advised of their availability.

In many cases, there is little or no documentation showing that users actually requested the development of the customized reports. There are no user requirements supporting the development of these reports, test documentation outlining the extent of testing performed prior to implementation and evidence of user sign-off prior to putting the reports into use. To ensure that information technology resources are used effectively, users' needs for reports should be fully documented and justified.

Recommendation:

- 16. The Commissioner, Economic Development, Culture and Tourism, ensure that:
 - (a) the development of reports follow a process that includes defining the user's requirements, obtaining the necessary approval, testing for accuracy, receiving final user acceptance before adding a customized report to the CLASS Recreation Registration and Permitting System and retaining appropriate documentation; and
 - (b) customized reports are available to all appropriate staff members.

Conclusions:

The CLASS System was implemented by the Parks and Recreation Division of Economic Development, Culture and Tourism as a single, City-wide and fully integrated program registration, facility permitting and facility scheduling system. The initial purchase for the City

of Toronto was made in 1999 in response to computer concerns relating to Year 2000. The System has been gradually expanded since that time.

With any computer system, security, including unauthorized access, is a concern. There are some basic controls related to passwords and user access that have not been put in place within the CLASS System. This is symptomatic of a lack of clear security guidelines for the System, the Department and at a broader level, for the City as a whole. This matter has been identified through the issue of a previous audit report and is now being addressed at the Corporate level.

The Department has become reliant on the operation of the CLASS Recreation Registration and Permitting System to conduct its business. Although perhaps a remote possibility, a situation could arise where the System becomes unavailable to facility staff for an extended period of time. The Department's ability to operate or maintain a reasonable level of service under such circumstances has not been fully explored. The potential for a sudden and prolonged loss of system functionality needs to be examined to ensure that the Department will be able to continue to operate effectively and transactions will be handled in a prudent, businesslike and controlled manner.

The implementation of the recommendations contained in this report will enhance the effectiveness of the CLASS System and provide additional assurances as to system security.

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