

# AUDIT REPORT



CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER  
BUREAU OF MANAGEMENT AUDIT  
WILLIAM C. THOMPSON, JR., COMPTROLLER

## **Audit Report on the Efficiency of the Department of Parks and Recreation in Addressing Complaints Related to Tree Removals**

*MG06-121A*

**March 26, 2007**



THE CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER  
1 CENTRE STREET  
NEW YORK, N.Y. 10007-2341

WILLIAM C. THOMPSON, JR.  
COMPTROLLER

**To the Citizens of the City of New York**

Ladies and Gentlemen:

In accordance with the Comptroller's responsibilities contained in Chapter 5, § 93, of the New York City Charter, my office has audited the Department of Parks and Recreation (Parks) to determine whether the agency is addressing and resolving complaints related to tree removals and emergency pruning in a timely manner.

Parks is responsible for the more than 500,000 trees that line the streets and the two million trees within the City's parkland. Audits such as this provide a means of ensuring that Parks and other city agencies comply with policies and procedures established to improve citizens' quality of life.

The results of our audit, which are presented in this report, have been discussed with Parks officials, and their comments were considered in the preparation of this report. Their complete written response is attached to this report.

I trust that this report contains information that is of interest to you. If you have any questions concerning this report, please e-mail my audit bureau at [audit@comptroller.nyc.gov](mailto:audit@comptroller.nyc.gov) or telephone my office at 212-669-3747.

Very truly yours,

A handwritten signature in black ink, appearing to read "Will C. Thompson, Jr.", written in a cursive style.

William C. Thompson, Jr.  
WCT/ec

**Report: MG06-121A**  
**Filed: March 26, 2007**

# *Table of Contents*

<b>AUDIT REPORT IN BRIEF .....</b>	<b>1</b>
Audit Findings and Conclusions.....	1
Recommendations.....	2
Agency Response.....	2
<b>INTRODUCTION.....</b>	<b>3</b>
Background.....	3
Objective.....	3
Scope and Methodology .....	3
Discussion of Audit Results.....	5
<b>FINDINGS AND RECOMMENDATIONS .....</b>	<b>6</b>
Tree Removals Were Generally Completed Timely.....	6
Recommendation .....	7
Service Requests Are Not Entered In Tree Manager.....	7
Recommendation .....	9
Review of Settled Tree-Related Claims Against the City .....	9
Recommendation .....	10
MIS Lacks Adequate Controls Over Tree Manager .....	11
Recommendations.....	12
<b>ADDENDUM</b>	

*The City of New York  
Office of the Comptroller  
Bureau of Management Audit*

**Audit Report on the Efficiency of the  
Department of Parks and Recreation  
In Addressing Complaints Related to Tree Removals**

**MG06-121A**

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**AUDIT REPORT IN BRIEF**

The audit determined whether the Department of Parks and Recreation is addressing and resolving complaints related to tree removals and emergency pruning in a timely manner.

The Department of Parks and Recreation (Parks) maintains a 28,800-acre park system distributed throughout the five boroughs of New York City. Parks is also responsible for the more than 500,000 trees that line the streets and the two million trees within the parks. In 1996, Parks conducted the first-ever street tree census placing the tree population on a database called Tree Manager—a computerized information management tool for urban forestry operations.

The Parks Division of Central Forestry and Horticulture (Central Forestry) is responsible for citywide urban forestry and horticulture initiatives. Central Forestry, through its five borough forestry offices (Forestry) administers a Dead Tree Removal Program through which it pledges to inspect and remove dead trees in front of citizens' residences within 30 days of notification. Forestry also prunes dead wood and hanging limbs that are potentially hazardous (emergency pruning).

**Audit Findings and Conclusions**

Parks generally resolved complaints related to tree removals in a timely manner. We noted that Tree Manager accurately reflected information entered into it related to service requests, inspection reports, and work orders. Together with other tests of data reliability, there was a reasonable basis to rely on the integrity of Parks's computer-processed data.

Our test of the timeliness of service requests to be completed by Forestry staff revealed that 90% of dead-tree removal service requests recorded in Tree Manager were completed within the 30-day mandate. This is slightly below the Parks target of a 95% completion rate for the 30-day mandate, as stated in the 2006 Mayor's Management Report. Forestry's review process of outstanding service requests to ensure the timely completion of tree removals needs improvement. Specifically, we noted internal control deficiencies in the review of service requests and subsequent inspection reports and work orders.

In addition, Parks does not ensure that all service requests are recorded in Tree Manager. As a result, the Tree Manager database does not contain all service requests it receives from the public, thereby increasing the risk that hazardous tree-related conditions that may result in accidents may be overlooked.

Moreover, our review of five randomly selected claims settled in Fiscal Year 2006, revealed that Forestry personnel failed to dispatch work crews to remedy hazardous conditions involved in those claims, although Forestry had performed prior inspections noting the conditions.

Finally, the Management Information Systems Department (MIS) lacks adequate controls over Tree Manager. Parks lacked adequate system documentation and controls such as record layouts, data entry validation, and audit trail. We also found that a disaster recovery plan to safeguard Tree Manager data is not in place.

### **Recommendations**

To address these issues, we make five recommendations. We recommend that Parks should:

- Ensure that Forestry improves the manner in which it oversees, prioritizes, and schedules work orders in order to comply with the 30-day tree removal mandate.
- Establish adequate procedures to ensure that all service requests are entered in Tree Manager and followed up for resolution.
- Ensure that inspections and the follow-up work necessary to perform dead tree removals are performed and documented.
- Ensure that MIS and Forestry officials design, specify, and implement in the new forestry data management system adequate features and system controls (i.e., record layouts, field definitions, disaster recovery, audit trail, input controls, data interface, etc.) to strengthen the reliability and integrity of the system.
- Ensure that the new system have appropriate tools and reports to facilitate and enhance supervisory review of completed and outstanding service requests.

### **Agency Response**

In its response, Parks agreed with three of the audit's five recommendations.

## INTRODUCTION

### **Background**

Parks maintains a 28,800-acre park system distributed throughout the five boroughs of New York City. This system provides a wide variety of recreational opportunities to the public, including nearly 1,700 parks, more than 990 playgrounds, and such facilities as swimming pools, beaches, recreation centers, ice-skating rinks, and zoos.

Parks is also responsible for the more than 500,000 trees that line the streets and the two million trees within the parks. Central Forestry is responsible for citywide urban forestry and horticulture initiatives. In 1996, Parks conducted the first-ever street tree census placing the tree population on a database called Tree Manager—a computerized information management tool for urban forestry operations. Parks also instituted a block-by-block maintenance pruning system that calls for every tree on a City street to be pruned once every ten years by outside contractors in a systematic and economically efficient manner.

Central Forestry, through Forestry administers a Dead Tree Removal Program through which it pledges to inspect and remove dead trees in front of citizens' residences within 30 days of notification. Forestry also does emergency pruning. According to the Fiscal Year 2006 Mayor's Management Report (MMR), the 311 Citizen Service Center (311) received 267,193 Parks-related inquiries, of which 18,862 (7%) were for removal of large branches or entire trees.

The Comptroller's Bureau of Law and Adjustment adjudicates personal injury and property damage claims filed against the City. After a claim is filed, it is investigated. Based on the results of the investigation and other factors, the Comptroller's Office may extend an offer to settle the claim. During Fiscal Year 2006, 67 tree-related property damage claims were settled, for a total of \$129,768.

### **Objective**

The objective of this audit was to determine whether the Department of Parks and Recreation is addressing and resolving complaints related to tree removals and emergency pruning in a timely manner.

### **Scope and Methodology**

The audit scope covered Fiscal Year 2006. To accomplish our objective and to gain an understanding of the processing and completion of tree-related service requests, and of the use of Tree Manager for this purpose, we interviewed officials from the Central Forestry, Forestry offices, and MIS.

To familiarize ourselves with the day-to-day operations of Forestry and to determine the adequacy of the internal controls over the handling of service requests, we conducted walk-throughs at each of the Forestry offices, interviewed office managers and clerks, and accompanied field inspectors and work crews to observe their daily work activities. To obtain an understanding of the Tree Manager system, we requested from MIS, documentation of record

layouts and field names for the database; system policies and procedures, including backup and disaster recovery; and data entry and verification. Copies of plans and implementation schedules for any changes to Tree Manager (i.e., adding new features, capacity, or new technology) were also requested.

We gathered and reviewed relevant information from the Parks website, the Mayor's Management Report, and the Executive Budget. We reviewed various Parks policies and procedures memoranda and Comptroller's Directives. The following were used as audit criteria:

- Tree Manager Standardization and Upgrade Memorandum (dated March 18, 1998);
- Tree Manager 4.60 Manual (June 1998);
- Tree Removal Protocol Memorandum (dated December 16, 2003);
- 311 and Forestry Standard Operating Procedures for Release 3.1(February 2005 update);
- Forestry Inventory, Mapping and Management System;
- Comptroller's Directive #1, "Principal of Internal Control," and accompanying "Agency Evaluation of Internal Controls Checklist";
- Comptroller's Directive #18, "Guidelines for the Management, Protection and Control of Agency Information and Information Processing Systems."

To determine whether the information contained in the Tree Manager database was reliable, we judgmentally selected the week of March 5 through March 11, 2006, for our test period<sup>1</sup>. It was verified that all the service requests received during this period were entered in Tree Manager in a complete, accurate, and unaltered manner by testing various attributes (i.e., date service requests were entered as received, inspected and completed; address; type of request; caller comments) that determined whether essential information was accurately recorded in the Tree Manager database. The attribute information in Tree Manager was verified to manual records in the Forestry files. Also, for this period, we visited 22 (63%) of the 35 locations where forestry work crews reported removing dead trees, which were reflected in Tree Manager, and verified whether they had in fact been removed.

To determine the completeness of the information in Tree Manager, we pulled 50 manual records at random from the Forestry files and obtained a printout of the corresponding information from the Tree Manager database. We compared and verified that the information contained in the manual records appeared on the printed Tree Manager records. We tested various attributes, including inspection dates and inspectors' comments, entered in Tree Manager.

While there are different types of tree-related service requests, Parks only has one specific target period (30 days) for requests to remove dead trees. Consequently, to determine whether incoming requests for removal of dead trees were completed within 30 days, we obtained the Tree Manager database from MIS. As previously mentioned, the MMR reported 18,862 inquiries for removal of large branches or entire trees during Fiscal Year 2006. To

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<sup>1</sup> The week of May 1 through May 7, 2006 was originally selected. However, since this aspect of our audit field work started on June, 7, 2006, after testing the Manhattan Forestry office, we selected the week of March 5 through March 11, 2006 for the remaining four Forestry offices to ensure that Parks had enough time to enter the service requests in the Tree Manager database and to follow them to completion.

perform our review we extracted data for the same period related only to “dead-tree removals” (includes tree removals and emergency pruning), resulting in 9,827 service requests. We then excluded service requests that resulted in cancelled work orders<sup>2</sup> and work orders to be completed by other than Forestry’s work crews (i.e., Consolidated Edison, the Department of Transportation, and various contractors). Of the 9,827 dead-tree removal service requests, our analysis was of 7,809 (79%) service requests performed by Forestry. We reviewed the time lapsed from the date service requests were received to the date Forestry completed the work.

To gain an understanding of the process undertaken when claims are made by citizens against the City in regard to damage caused by trees, we interviewed officials from the Comptroller’s Law and Adjustment Bureau. To determine whether Parks’s efficiency in responding to citizens’ service requests had an impact on tree-related claims against the City, we requested from Law and Adjustment a list of tree-related claims that were settled during Fiscal Year 2006. There were a total of 67 Property Damage claims; we randomly selected and reviewed five claims that involved tree removals (for the purposes of this report, tree removals also refer to emergency pruning unless stated otherwise). Law and Adjustment provided us with the Notices of Claims for our sample, and we obtained from Forestry all service requests related to the place of incident stated in those claims. We tested whether there was prior notification of tree-related complaints, and whether lack of timely investigation of the complaints contributed to the filing of our sampled claims.

The results of the above tests, while not projected to the respective populations from which the samples were drawn, provided a reasonable basis to satisfy our audit objectives.

This audit was conducted in accordance with generally accepted government auditing standards (GAGAS) and included tests of records and other auditing procedures considered necessary. This audit was performed in accordance with the audit responsibilities of the City Comptroller, as set forth in Chapter 5, §93, of the New York City Charter.

### **Discussion of Audit Results**

The matters covered in this report were discussed with Parks officials during and at the conclusion of this audit. A preliminary draft report was sent to Parks officials on December 22, 2006, and discussed at an exit conference held on January 18, 2007. On February 06, 2007, we submitted a draft report to Parks officials with a request for comments. We received a written response from Parks officials on February 22, 2007. In its response Parks stated: “We are pleased that your findings indicate that Parks resolved complaints related to tree removals in a timely manner.” Parks agreed with three audit recommendations and disagreed with two others that addressed the manner in which work orders are prioritized and scheduled, and how inspections and follow-up work for tree removals are performed and documented. The full text of Parks’ response is included as an addendum to this report.

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<sup>2</sup> Following an inspection, a tree-removal work order may be created, depending on the inspector’s assessment. Rarely, however, a work order may be canceled by the work-crew supervisor if the assessment of the tree condition indicates that removal of a tree is not required.



## FINDINGS AND RECOMMENDATIONS

Our audit found that Parks generally resolved complaints related to tree removals in a timely manner. However, we noted internal control deficiencies in the review process of service requests and subsequent inspection reports and work orders. In addition, Parks does not ensure that all service requests are recorded in Tree Manager. Those deficiencies hinder Parks in fully meeting its 30-day mandate for removing dead trees and may leave the City more vulnerable to claims against it.

The audit found that Tree Manager accurately reflected information entered into it related to service requests, inspection reports, and work orders. We found that tree removals were performed as indicated on the work orders. Together with other tests of data reliability, there was a reasonable basis to rely on the integrity of Parks's computer-processed data. However, MIS lacks adequate controls over Tree Manager. The details of these findings are discussed in the remaining sections of this report.

### **Tree Removals Were Generally Completed Timely**

Our test of the timeliness of service requests to be completed by Forestry staff revealed that 90% of dead-tree removal service requests recorded in Tree Manager were completed within the 30-day mandate. This is slightly below the Parks target of a 95% completion rate for the 30-day mandate, as stated in the 2006 Mayor's Management Report. Forestry's review process of outstanding service requests to ensure the timely completion of tree removals needs improvement.

For Fiscal Year 2006, only 690 (9%) of the 7,809 tree removal service requests entered in Tree Manager were not completed within the 30-day mandate. Of the 690 tree removals, 640 were completed in an average of 40 days. The 50 remaining tree removal requests were outstanding for an average of 169 days as of September 8, 2006.<sup>3</sup> The Parks Tree Removal Protocol Memorandum states: "Parks has a clear removal policy for trees that are dead or impacted by deadly pests and diseases. These trees are removed immediately, or within 30 days of request." Parks officials said that a delay in following service requests to completion may occur after seasonal storms, however, Parks could not supply any documentation to corroborate this statement. Our review of the database did not reveal any clusters of delays in dead tree removals around any given date.

Insufficient documentation detailing the results of inspections for outstanding service requests prevents Forestry officials from performing adequate reviews and making adjustments in the way resources are used to perform dead-tree removals. In fact, we noted cases where tree removals (not completed within the 30 day mandate) were completed before other tree removal requests that were received earlier. Table I below illustrates an example of how two tree removal requests were handled. For these cases, there was no documentation in Tree Manager to indicate why the more recent request was given priority over the earlier request.

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<sup>3</sup> The last day for which we have complete data.

**TABLE I**  
**Example of Service Requests Not Properly Prioritized**

Case	Date Received	Date Inspected	Date of Work	Days to Complete
X	05/01/2006	06/06/2006	06/15/2006	45
Y	04/18/2006	05/07/2006	06/20/2006	63

The risk of having property damage and personal injury claims against the City increases when requests for dead-tree removals are not acted on according to the 30-day tree removal mandate.

**Recommendation**

Parks should:

1. Ensure that Forestry improves the manner in which it oversees, prioritizes, and schedules work orders in order to comply with the 30-day tree removal mandate.

***Parks Response:*** “Parks disagrees. The audit implies that removals should be done in the order that the requests were received. Parks does not perform removals solely based on the date of the request, but on other factors (such as size, difficulty, cost, and efficiency). These factors along with the 30 day removal goal, are balanced by the Supervisors and Managers of each borough Forestry Division on a daily basis and are elements of oversight and prioritization in the removal process. Again, our preliminary analysis of the “...50 removal requests outstanding for an average of 169 days” indicates that they may have been misinterpreted. Parks continues to investigate that claim.”

***Auditor Comment:*** While the order that requests are received should be a factor in scheduling service requests, we do not imply that it should be the only factor. However, although Parks states that it considers other factors in addition to the date of the request when scheduling tree removals, we found little evidence to support its statement. As we state in the report, we found no documentation indicating the reasons that newer service requests were given priority over older ones. In fact, we provided Parks with a list of these requests on January 30, 2007, and the agency has not provided any information regarding the reasons that these requests were delayed or evidence to indicate that we “misinterpreted” the agency’s data. Accordingly, we reaffirm our recommendation.

**Service Requests Are Not Entered In Tree Manager**

Parks has failed to institute proper controls over the processing and recording of service requests that come to Forestry. As a result, the Tree Manager database does not contain all service requests it receives from the public, thereby increasing the risk that hazardous tree-related conditions that may result in accidents may be overlooked.

According to the Tree Manager Manual, “When a citizen complaint is received, a service request is created. A form is then printed and given to the inspectors to inspect. . . . Once an

inspection is completed, it must be recorded on the system by the office personnel. In doing this, they record the inspection information and create work orders for the necessary work.” When the work is completed, the work order is returned to the office and recorded in Tree Manager, and the service request is closed.

Most tree-related service requests are reported to the 311 Citizen Service Center. They are relayed to Parks via the 311 service-request computer system known as SIEBEL. The 311 and Forestry Standard Operating Procedures for Release 3.1 states: “All requests from SIEBEL must be input into Tree Manager.” To accomplish this, Forestry clerks manually key the service requests from SIEBEL into the Tree Manager database. We found that 58 (12%) of the 496 SIEBEL service requests received during our test period (March 5-11, 2006), were not keyed into Tree Manager as required. These service requests were closed shortly after being created in SIEBEL but before they reached Forestry. Officials at Forestry told us that they do not review or enter in Tree Manager those service requests that are closed before Forestry receives them. (Several Forestry officials stated that they believe they are closed by someone at the 311 Citizen Service Center but they do not know for sure.) However, since Forestry officials do not review these closed service requests, there is no mechanism to ensure that hazardous conditions associated with these requests have been properly investigated and addressed. For example, during a field visit we learned of a SIEBEL service request requiring Forestry’s attention that had been erroneously closed before Forestry received it. Forestry promptly entered this request in the Tree Manager database when it was brought to their attention. Accordingly, all service requests not closed by Forestry should still be entered in Tree Manager and reviewed by Forestry officials to ensure that closures were appropriate.

Service requests also come via mail, email, and phone calls directly to Forestry. In addition, inspectors or work crews will ask that service requests (“field pick-ups”) be issued based on conditions they observe in the field. For our test period, 337 (40%) of the 833 service requests entered in Tree Manager came this way. However, officials said that they do not keep a log or other record of those requests on a consistent basis. Without proper procedures on how to document and trace those service requests there is no assurance that all complaints are entered in Tree Manager, and that they are inspected and appropriately resolved. In fact, when we visited one Forestry office on August 24, 2006, we found 132 mail requests that had not been entered in Tree Manager; some were two months old or longer, some included photographs, or had detailed descriptions of the reasons for the complaint. By not promptly entering these mail requests in the Tree Manager database and generating a service request, Forestry Officials will not be aware of a reported condition in order to remedy it within the 30-day mandate and will expose the public to a potentially dangerous condition.

All service requests are required to be entered in Tree Manager. The Tree Manager 4.60 Manual states: “Although trees must have addresses, service requests do not necessarily need them... Sometimes it is impossible to get an address for a tree. . . . In these cases, you will have to create a service request which describes the tree’s location. However, it is essential that the inspector get an address for the tree when he or she inspects it.” One Forestry office, however, circumvents using Tree Manager for this type of service request by maintaining a separate “Park Work” Excel spreadsheet in which it records and tracks certain service requests. Officials maintained that they use this system when a service request comes with an incomplete address

and for service requests for park trees<sup>4</sup> that need work. We found that 21 of the 22 service requests entered on this “Park Work” spreadsheet for our test period were never entered in Tree Manager.

Forestry officials do not routinely perform reviews to ensure that all service requests are entered in Tree Manager. Since not all the service requests are entered in Tree Manager for follow-up and resolution, there is an increased risk of overlooking hazardous tree-related conditions that may result in accidents.

### **Recommendation**

Parks should:

2. Establish adequate procedures to ensure that all service requests are entered in Tree Manager and followed up for resolution.

***Parks Response:*** “Parks agrees. Since the implementation of the 311 Call Center, Parks had to manually re-type service requests into Tree Manager for inspection and work order management, which is a drain on Parks’ resources. With the new Forestry Management System, integration with the 311 Call Center will automatically transfer every request into Parks’ database. Additionally, the new system will allow Parks to review even those requests that are automatically closed by the SIEBEL system.”

### **Review of Settled Tree-Related Claims Against the City**

Parks’s failure to properly follow up on service requests leaves the City more vulnerable to tree-related property damage claims. Our review of five randomly selected claims settled in Fiscal Year 2006, revealed that Forestry personnel failed to dispatch work crews to remedy hazardous conditions involved in those claims, although Forestry had performed prior inspections noting the conditions.

According to New York State Law, claims must be filed with the Office of the Comptroller within 90 days from the date of the occurrence. Claimants filing cases involving automobile damage are advised to supply itemized statements of estimates of damages: paid bills, canceled checks, and acceptable proof of payment for repair of damage. After the City has been duly notified of the claim, the claimant must wait 30 days to allow the City time to review the claim and possibly settle. After the waiting period, the claimant may start an action in court; however, the action must be started within one year and 90 days of the time of the loss, damage or injury.

In one of the five cases we reviewed, a car was damaged by a falling tree. A review of the records disclosed that Parks was given prior notice that the tree was leaning and required attention. The tree was inspected and it was noted that dead wood should be pruned. A high priority was assigned. However, no work was completed. Two months later, Parks was again

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<sup>4</sup> Trees within a park that have no street address.

notified that the tree required attention. The tree was inspected and it was noted that there was an outstanding work order. Parks provided us no documentation to show that a work crew was dispatched and that the work was completed. Approximately six weeks later, the tree fell on a car, causing severe damage. In another case, Parks was notified that a tree was dead and required removal. An inspection was conducted one day following the service request; but the inspector did not record the results of his inspection. There is no evidence that Parks reviewed the inspector's report, dispatched a work crew, or performed the necessary follow-up work. Ultimately the tree fell, causing extensive damage to a parked car.

Table II following shows the action taken by Parks for the five cases.

**TABLE II**  
Parks Action in Settled Claims

Case No.	Date of Incident Relating to Claim	Reason for Claim	Initial Complaint Date	Reason for Complaint	Inspection Date	Tree Inspection Results	Follow Up
1	04/25/05	Tree fell on car	01/03/05	Tree rotten at roots	01/04/05	Prune dead wood	No record of work performed
2	05/24/05	Tree fell on car	05/19/04	Rotten tree at base	05/21/04	Roots require shaving	No record of work performed
3	10/25/05	Branch fell on car	03/01/05	Tree leaning and decomposing	03/02/05	Prune	No record of work performed
4	10/16/05	Tree fell on car	07/30/03	Tree dead	07/31/03	No comments	No record of work performed
5	06/27/05	Tree limb fell on car	11/16/04	Low branches hitting wires & trucks. Roots a tripping hazard.	11/23/04	Needs new sidewalk; no comments regarding low branches	No record of work performed

For cases #1, #2, and #5, the inspection results do not appear to address the original complaint; in case #4, the complaint is not addressed at all. The lack of adequate review results in these flaws being undetected and no follow-up action taken in all five cases.

**Recommendation**

Parks should:

3. Ensure that inspections and the follow-up work necessary to perform dead tree removals are performed and documented.

**Parks Response:** “Parks disagrees. The audit states that “Parks failure to properly follow up on service requests leaves the city more vulnerable to tree related property

damage claims.” It then goes on to say that the situations were not remedied. Of the 5 examples cited, all were inspected and it was determined that pruning or sidewalk repair was needed in 4 of the examples, not removal. Therefore Parks did follow up on the service requests. Furthermore, there is no indication in the records of any hazardous condition identified through the inspection process that caused or contributed to the property damage that occurred subsequent to the inspection or that the damage was directly related to the condition of the tree at the time of inspection. The fact that these cases resulted in claims against the city is not indicative of the inspector’s ability or the agency’s performance in its stated mission.”

***Auditor Comment:*** It is unclear whether Parks disagrees with the recommendation or with the finding that led to the recommendation. In any event, we disagree with Parks’s contention that merely performing inspections in response to service requests constitutes sufficient follow-up. As we state in the report, there is no evidence that Parks reviewed the inspection results and performed the necessary follow-up work for these requests. We remain concerned that the lack of proper documentation and the inadequate review of existing records results in hazardous conditions being unresolved, especially when the inspection results do not appear to address the original complaint. Accordingly, we urge Parks to reconsider its response to this recommendation.

### **MIS Lacks Adequate Controls Over Tree Manager**

The Tree Manager system is an integral component of the processing of citizens’ service requests. Our audit disclosed control weaknesses: Parks lacked adequate system documentation and controls such as record layouts, data entry validation, and audit trail. In addition, a disaster recovery plan to safeguard Tree Manager data is not in place. As a result, the reliability and integrity of the system is weakened.

MIS staff members are assigned to provide technical support for Tree Manager. However, we found certain limitations when requesting basic record layouts and field definitions for database analysis. MIS officials informed us that the person in charge, who had full knowledge of Tree Manager applications and its layouts, no longer works for Parks. The staff currently providing technical support could not provide us with adequate and complete record layouts or field names for the Tree Manager database.

Comptroller’s Directive #1 recommends that documentation for computer applications contain field definitions and names, and that documentation for all data processing systems be adequate to ensure that the organization could continue to operate if key MIS employees or consultants leave. Without the proper documentation, any review of the information in the Tree Manager database is problematic and time-consuming.

A Tree Manager disaster-recovery plan to safeguard its data is not in place. MIS officials informed us that there is no audit-trail procedure, and that the system lacks input controls, such as, data entry validation. Comptroller’s Directive #18 states: “A formal plan for the recovery of agency operations and the continuation of business after a disruption due to a major loss of computer processing capability is an important part of the information protection plan.” Without a formal disaster-recovery plan in place to support Tree Manager there is no assurance that the

effectiveness of the processing and completing of Forestry service requests will continue in the event of a disaster or unplanned disruption of its information-processing facilities.

Comptroller's Directive #18 further states: "A key element in the control over the information processing environment is the incorporation of audit trails in general and application control procedures. Audit trails maintain records of a variety of system events and activities. Every data entry or change. . . should result in the recordation of the event so that management or auditors can trace any change back to its source." In addition, Directive #18 recommends that agencies insure adequate application controls, including input controls that cover data entry, data conversion, data validation, editing, and error handling. Proper controls preserve the data file integrity. Without proper application controls the risks of unauthorized manipulation and data entry error increases.

According to Parks officials, Tree Manager is an outdated data-management system and, since it is a proprietary application developed by outside consultants, it cannot be updated. The Forestry Inventory, Mapping and Management System, write-up further explains that there are no means to incorporate such new best-practices technologies as geographic information systems and hand-held computing, and that Parks is in the process of a major reconfiguration and modernization of the means, methods, and technology to manage street and park trees. Parks officials expect the new system, which they are developing in-house, to be functional by the end of August 2007.

### **Recommendations**

Parks should:

4. Ensure that MIS and Forestry officials design, specify, and implement in the new forestry data management system adequate features and system controls (i.e., record layouts, field definitions, disaster recovery, audit trail, input controls, data interface, etc.) to strengthen the reliability and integrity of the system.

***Parks Response:*** "Parks agrees. The current Tree Manager system is no longer supported by the vendor and was placed in service prior to Comptroller's Directive # 18. Therefore upgrading and amending the system is not possible to meet that directive. Parks is in the process of designing and implementing a system that will encompass all of the required controls and will be in compliance with Comptroller's Directives #'s 1 and 18. It will also include the means necessary to incorporate GIS and hand held computing devices."

5. Ensure that the new system have appropriate tools and reports to facilitate and enhance supervisory review of completed and outstanding service requests.

***Parks Response:*** "Parks agrees."



City of New York  
Parks & Recreation

Adrian Benepe  
Commissioner

**ADDENDUM**

**Page 1 of 6**

The Arsenal  
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February 21, 2007

Mr. John Graham  
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**RE: DRAFT REPORT**  
**Audit Report on the Efficiency of the**  
**Department of Parks and Recreation in**  
**Addressing Complaints Related to**  
**Tree Removals**  
**MG06-121A**

Dear Mr. Graham,

Thank you for forwarding your draft report (MG06-121A) on the Efficiency of Parks in Addressing Complaints Related to Tree Removals in advance of its public release.

We are pleased that your findings indicate that Parks resolved complaints related to tree removals in a timely manner. Parks is also gratified that the audit found that the Tree Manager program accurately reflects information entered into it. Additionally, we are pleased that your staff found that there was a reasonable basis to rely on the integrity of Parks' computer-processed data. In fact, Parks is developing a new management information system that will improve customer service and our ability to manage this important resource, as well as to refine system controls (record layouts, field definitions, audit trail, request input, etc.) in accordance with Recommendations #2, 4, and 5.

We are concerned, however, with some of the conclusions drawn from the Tree Manager data. Specifically, the audit found that "...50 tree removal requests were outstanding an average of 169 days", during FY '06. Our preliminary analysis indicates that the data may have been misinterpreted. Furthermore, the audit states that "...we [the auditors]



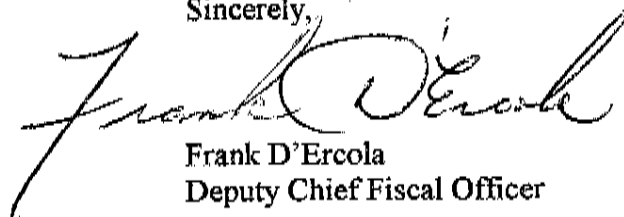
*excluded service that resulted in cancelled work orders and work orders completed by other than Forestry crews*". This also does not appear to be the case based on the information we have reviewed. We have requested all of the data on which these findings are based and request the opportunity to amend our detailed response when our review is complete.

Similarly, the report states that "... Forestry personnel failed to dispatch work crews to remedy hazardous conditions involved" in tree-related property damage claims. There is no indication in the records of any hazardous condition identified through the inspection process that caused or contributed to the property damage that occurred subsequent to the inspection or that the damage was directly related to the condition of the tree at the time of inspection.

Finally, Parks disagrees with recommendation # 1, and 3 as detailed in our attached response and Audit Implementation Plan (AIP).

Parks and Recreation, as always, is committed to providing a greater range of services to the public.

Sincerely,

A handwritten signature in cursive script, appearing to read "Frank D'Ercola".

Frank D'Ercola  
Deputy Chief Fiscal Officer

CC: L. Kavanagh, First Deputy Commissioner, DPR  
D. Stark, Chief Fiscal Officer, DPR  
F. Watt, Chief of Forestry and Horticulture, DPR

## PARKS AND RECREATION RESPONSE TO AUDIT MG06-121A Efficiency in Addressing Complaints Related to Tree Removals

**Recommendation 1:** Ensure that forestry improves the manner in which it oversees, prioritizes, and schedules work orders in order to comply with the 30 day tree removal mandate.

**Response:** *Parks disagrees. The audit implies that removals should be done in the order that the requests were received. Parks does not perform removals solely based on the date of the request, but on other factors (such as size, difficulty, cost, and efficiency). These factors, along with the 30 day removal goal, are balanced by the Supervisors and Managers of each borough Forestry Division on a daily basis and are elements of oversight and prioritization in the removal process. Again, our preliminary analysis of the "...50 removal requests outstanding for an average of 169 days" indicates that they may have been misinterpreted. Parks continues to investigate that claim.*

**Recommendation 2:** Establish adequate procedures to ensure that all service requests are entered in Tree Manager and followed up for resolution.

**Response:** *Parks agrees. Since the implementation of the 311 Call Center, Parks has had to manually re-type service requests into Tree Manager for inspection and work order management, which is a drain on Parks' resources. With the new Forestry Management System, integration with the 311 Call Center will automatically transfer every request into Parks' database. Additionally, the new system will allow Parks to review even those requests that are automatically closed by the SIEBEL system.*

**Recommendation 3:** Ensure that inspections and the follow-up work necessary to perform dead tree removals are performed and documented.

**Response:** *Parks disagrees. The audit states that "Parks failure to properly follow up on service requests leaves the city more vulnerable to tree-related property damage claims." It then goes on to say that the situations were not remedied. Of the 5 examples cited, all were inspected and it was determined that pruning or sidewalk repair was needed in 4 of the examples, not removal. Therefore Parks did follow up on service requests. Furthermore, there is no indication in the records of any hazardous condition identified through the inspection process that caused or contributed to the property damage that occurred subsequent to the inspection or that the damage was directly related to the condition of the tree at the time of inspection. The fact that these cases*

*resulted in claims against the city is not indicative of the inspector's ability or the agency's performance in its stated mission.*

**Recommendation 4:** Ensure that MIS and Forestry officials design, specify, and implement in the new forestry data management system adequate features and system controls (i.e., record layouts, field definitions, disaster recovery, audit trail, input controls, data interface, etc.) to strengthen the reliability and integrity of the system.

**Response:** *Parks agrees. The current Tree Manager system is no longer supported by the vendor and was placed in service prior to Comptroller's Directive #18. Therefore upgrading and amending the system is not possible to meet that directive. Parks is in the process of designing and implementing a system that will encompass all of the required controls and will be in compliance with Comptroller's Directive #'s 1 and 18. It will also include the means necessary to incorporate GIS and hand held computing devices.*

**Recommendation 5:** Ensure that the new system have appropriate tools and reports to facilitate and enhance supervisory review of completed and outstanding service requests.

**Response:** *Parks agrees. See 4 above.*

**AUDIT IMPLEMENTATION PLAN**  
**AUDIT TITLE: Audit Report on Efficiency of the Department of Parks and Recreation**  
**In Addressing Complaints Related to Tree Removals**  
**Office of the City Comptroller**  
**Audit Report MG06-121A**  
**Date: February 21, 2007**

Findings	Recommendations/Agency Response	Corrective Action Plan/Date Implemented
<p>1) <u>Tree Removals</u>. Insufficient documentation detailing the results of inspections for outstanding service requests prevents Forestry officials from performing adequate reviews and making adjustments in the way resources are used to perform dead tree removals.</p>	<p>1) Ensure that Forestry improves the manner in which it oversees, prioritizes, and schedules work orders in order to comply with the 30 day mandate.</p>	<p>Parks prioritizes and schedules removals based on location, size and other factors. Borough Forestry Supervisors and Managers make these decisions in an effort to achieve the greatest operational efficiency. The data reported in Tree Manager does not reflect the quality of these decisions. Parks continues to investigate the "...50 tree removal requests outstanding for an average of 169 days".</p>
<p>2) <u>Service Requests Not Entered In Tree Manager</u>. Parks has failed to institute proper controls over the processing and recording of service requests that come to Forestry. As a result, the Tree Manager database does not contain all service requests it receives from the public.</p>	<p>Agency response: <b>DPR disagreed</b>                  2) Establish adequate procedures to ensure that all service requests are entered in Tree Manager and followed up for resolution.</p>	<p>2) Since the implementation of the 311 Call Center, Parks has had to manually re-type service requests from SIEBEL into Tree Manager for inspection and work order management. With the new Forestry Management System, integration with the 311 Call Center will automatically transfer every request into Parks' database.  <b>Implementation Date: August 2007 (projected)</b></p>
<p>3) <u>Review of Settled Tree Related Claims Against the City</u>. Park's failure to properly follow up on service requests leaves the City more vulnerable to tree related property damage. Forestry personnel failed to dispatch work crews to remedy hazardous conditions involved in those claims, although Forestry had performed prior inspections noting the conditions.</p>	<p>3) Ensure that inspections and the follow-up work necessary to perform dead tree removals are performed and documented.</p> <p>Agency response: <b>DPR disagreed</b></p>	<p>3) Only 1 of the cited examples are germane to this audit. The remaining examples resulted in inspections that determined that dead tree removal was not necessary, rather pruning or sidewalk repair. Although these cases resulted in claims against the city (branches or tree fell on autos) it does not indicate the accuracy or the ability of the inspector, nor the agency's ability to perform its stated mission.</p>

Findings	Recommendations/Agency Response	Corrective Action Plan/Date Implemented
<p>4 &amp; 5) <u>MIS Lacks Adequate Controls Over Tree Manager</u>. Parks lacked adequate system documentation and controls such as layout, data entry validation, and audit trail. In addition, a disaster plan to safeguard Tree Manager is not in place.</p>	<p>4) Ensure that MIS and Forestry officials design, specify, and implement in the new Forestry data management system adequate features and system controls (i.e., record layouts, field definitions, disaster recovery, audit trail, input controls, data interface, etc.) to strengthen the reliability and integrity of the system.</p> <p>5) Ensure that the new system have appropriate tools and reports to facilitate and enhance supervisory review of completed and outstanding service requests.</p> <p>Agency response: <u>DPR agreed</u></p>	<p>4) The Tree Manager system is no longer supported by the vendor and was placed in service prior to Comptroller's Directive #18. Therefore upgrading and updating items such as layout, and other system documentation controls to meet that directive is not possible. Parks is in the process of designing and implementing a system that will encompass all of the required controls in accordance with Directive #'s 1 and 18.</p> <p>Implementation Date: Aug 2007 (projected)</p>