

# AUDIT REPORT



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

## **Audit Report on the Department of Environmental Protection Controls over The Billing of Water and Sewer Charges Of Residential Properties**

*MH08-069A*

**February 10, 2009**



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 conducted an audit of Department of Environmental Protection (DEP) controls over the billing of water and sewer charges for residential properties.

DEP's Bureau of Customer Services (BCS) is responsible for the billing of water and sewer charges for all properties within the City. It maintains the Customer Information System to maintain customer, premise, and utility information, and verifies the accuracy of water meters and remotes, including their inspection, repair, and replacement. We audit programs of City agencies such as this as a means of ensuring that they operate efficiently and are accountable for City funds and resources.

The results of our audit, which are presented in this report, have been discussed with DEP officials, and their comments have been 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 "William C. Thompson, Jr.", written in a cursive style.

William C. Thompson, Jr.

WCT/ec

**Report:** MH08-069A  
**Filed:** February 10, 2009

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

**Audit Report on the  
Department of Environmental Protection Controls  
Over the Billing of Water and Sewer Charges  
Of Residential Properties**

MH08-069A

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**AUDIT REPORT IN BRIEF**

The Department of Environmental Protection (DEP) protects the environmental health, welfare, and natural resources of New York City (City). DEP's Bureau of Customer Services (BCS) is responsible for the billing of water and sewer charges for all properties within the City. BCS maintains customer, premise, and utility information using the Customer Information System (CIS). It also verifies the accuracy of water meters and remotes (reading device affixed to the front outside wall of a property) and inspects, repairs, and replaces them. Con Edison, through a contract with DEP, is responsible for reading meters. In general, each property's meter is read every three months (billing cycle).

The premises of certain qualifying organizations are eligible for an exemption from payment of water and sewer charges. According to CIS, during Fiscal Year 2007 there was a total of 765,431 accounts associated with residential properties citywide that were billed approximately \$1.4 billion in water and sewer charges. Our audit determined whether DEP has adequate controls over the billing of water and sewer charges for residential properties to ensure that bills are accurate and that it has properly identified all properties whose accounts should be billed.

**Audit Findings and Conclusions**

In general, DEP has adequate controls in place to ensure that bills are accurate. However, DEP lacks the controls needed to ensure that it properly identifies properties whose accounts should be billed. As a result, there is an increased risk that accounts may not be billed for water and sewer use and monies due the City will go uncollected.

We identified the following areas of concern: properties incorrectly placed on inactive status resulting in their respective accounts not being billed an estimated \$11,409, lacking or incomplete exemption files, and a lack of monitoring of water use for exempt frontage accounts. The audit also found that an estimated \$26,177 was not billed to certain accounts because they were incorrectly classified as exempt from payment of water and sewer charges. In addition,

DEP needs to improve its monitoring of accounts: there was untimely or lack of completion of work related to meters or remotes and accounts with three or more consecutive estimated bills were not always investigated as required. DEP also has an inadequate tracking system for monitoring overdue work orders related to meters or remotes. Finally, DEP does not have formal procedures for calculating estimated bills in which the average amount of water use is computed manually or for assessing whether properties are eligible for exemption from payment of water and sewer charges.

We did find for our sampled accounts that DEP correctly calculated the water and sewer charges based on the meter readings indicated in its browser application system (BAPPS) and correctly calculated late payment charges. We verified that DEP used the correct average amount of water use for the calculation of the estimated bills in our sample. In addition, we verified that, in general, actions recorded in the Customer Notes screens did in fact occur and that all cycles were billed. DEP adequately monitors permits issued to plumbers responsible for meter work. Also, when Customer Registration Forms are submitted, DEP generally updates the owner information in CIS.

### **Audit Recommendations**

Based on our findings, we make 23 recommendations, including that DEP should:

- Investigate the four accounts that we determined were incorrectly placed on inactive status and that should, therefore, be billed for water and sewer charges. After examination, and if warranted, start billing the accounts and recoup the moneys owed for the unbilled periods.
- Create a tracking system that would effectively monitor the inactive accounts. This system should include, but not be limited to: the date the account becomes inactive, the reason the account has become inactive, and an indication of whether or not the account will permanently remain on inactive status.
- Investigate the three accounts that we determined should not be exempt from payment of water and sewer charges. After examination, and if warranted, start billing the accounts and recoup the moneys owed for the unbilled periods.
- Establish formal procedures for calculating estimated bills in which the average amount of water use is computed manually rather than automatically in CIS. The procedures should include all of the situations in which bills would be manually estimated and the appropriate methods for their calculations.
- Develop and implement written procedures for the Exemption Unit. The procedures should include the steps that the Exemption Unit needs to take to ensure compliance with the rules governing exempt properties in the New York State Law and the City Administrative Code. Among the procedures should be those for handling new organizations requesting exemption from the payment of water and sewer charges and

periodically reviewing organizations that have already been granted exemptions to ensure that all of them should continue to be exempt.

- Improve its oversight of accounts to ensure that work related to the installation, repairing, or replacement of meters or remotes is completed in a timely manner and that accounts receiving three or more consecutive estimated bills are investigated.
- Ensure that a work order is closed and indicates a resolution when DEP has completed the work and performed the work under another work order.

**DEP Response**

In their response, DEP officials agreed with 19 of the 23 recommendations and disagreed with the remaining 4 recommendations.

## INTRODUCTION

### Background

The Department of Environmental Protection (DEP) protects the environmental health, welfare, and natural resources of New York City (City) and its residents. Among its responsibilities, DEP manages the City's water supply, which provides more than a billion gallons of quality drinking water daily serving half the population of New York State. It also manages 14 wastewater (sewage) treatment plants in the City as well as 9 treatment plants outside the City. In addition, DEP is responsible for the billing and collecting of water and sewer charges from all properties within the City. Approximately 90 percent of the City's water and sewer customers are residential property owners. This audit focuses mainly on the controls over the billing of water and sewer charges of residential properties by DEP's Bureau of Customer Services (BCS).

BCS handles customer billing matters and complaints. It maintains customer, premise, and utility information, updating it when there is a change in property ownership or in an owner's mailing address. BCS verifies water meter (meter) accuracy, inspects meter and remote (reading device normally affixed to the front outside wall of a property) receptacle installations, repairs and replaces malfunctioning meters and remotes, and issues permits to plumbers for various types of work for water use. BCS also administers the collection of fees and charges for use of water and sewer services.

BCS uses the Customer Information System (CIS) to maintain information for the billing and collection of water and sewer charges for all properties.<sup>1</sup> Relevant information for each property, such as account number, service address and borough, owner name, and block and lot number, is entered into the system. A property that uses water and sewer service is placed on active status in CIS, and the account is generally billed for water and sewer charges. When a property's water service has been terminated or a property has been demolished, the account is placed on inactive status in CIS and is not billed for water and sewer charges.

Historically, the accounts for properties were billed annually for water and sewer charges based on frontage—the physical features (i.e., number of stories and apartments) and the number of water-using fixtures (i.e., sinks, showers, and toilets) that the property has. In 1985, City Local Law 53 was passed, which required owners of all new construction—residential, mixed use, commercial—and of all substantially renovated properties to install meters as part of a major conservation effort and be billed based upon actual consumption. In 1987, the City Council approved the Universal Metering plan, which, over a ten-year period, required DEP to install or cause to be installed meters in every property in the City. During Fiscal Year 2007, there were 57,778 properties whose accounts were still billed based on frontage. As part of the City's transition to metering programs, there are properties (such as those with six or more residential units) that will be able to continue to be billed based on frontage even though they have meters installed. By July 2009, it is expected that accounts for these properties will either be billed based on meter readings

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<sup>1</sup>DEP has been using CIS for the billing and collection of water and sewer charges since 1995 when it took over this responsibility from the Department of Finance.

or be billed based on another method established under the Multiple Family Conservation Program providing they qualify.

**DEP Response:** “The Comptroller cited that Local Law 53 of 1985 requires that all new construction and substantially renovated properties ‘be billed based upon actual consumption.’ This implies any new or substantially renovated property that is not billed based on actual consumption (e.g., estimates, frontage, flat-rate, etc.) is not being billed in accordance with local law. Local Law 53 does not make any reference to water and sewer charges, or the manner in which properties are to be billed.

**Auditor Comment:** We do not understand the concern that DEP has with our statement regarding Local Law 53 of 1985 since the criteria we reviewed to make such a statement were obtained directly from DEP. Specifically, DEP’s *Water and Sewer Bills Frequently Asked Questions*, which is posted on its Web site, states, “All commercial and industrial property within New York City should be metered according to Local Law 53. . . . All new construction, regardless of type, residential, mixed use, and commercial must be metered and billed based upon metered consumption.”

Con Edison, through a contract with DEP, is responsible for reading meters throughout the City by means of a hand-held device. Each night, the readings are electronically uploaded into CIS to be used in the calculation of bills. In general, Con Edison reads each property’s meter every three months (billing cycle). Bills are usually issued four to eight days later and are due within 28 days. Otherwise, late payment charges will be automatically assessed. The New York City Water Board is responsible for setting the water and sewer rates.<sup>2</sup>

Generally, bills for accounts of properties with meters are based upon actual consumption measured by Con Edison. However, DEP will issue an estimated bill if Con Edison is unable to obtain a reading because a property has a defective or obstructed remote or meter or because a property is locked or inaccessible. There are also situations in which Con Edison obtains a reading from a property but the reading is not in sync with the history of readings for the property. In such a case, DEP’s billing system rejects the reading and issues an estimated bill. If a property has received three or more consecutive estimated bills, DEP inspectors are to investigate the conditions, and, if necessary, correct them.

According to Chapter 893 of New York State Law of 1980, the premises of certain qualifying organizations, such as religious sites used exclusively for public worship, are eligible for an exemption from payment of water and sewer charges. The Exemption Unit of BCS is responsible for reviewing Applications for Exemption from Water and Sewer Charges (Exemption Applications), inspecting the properties, and determining qualification.

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<sup>2</sup>The New York City Water Board is a public benefit corporation that was created in 1984 by the New York State Legislature. It is responsible for fixing water and sewer rates that will result in revenue sufficient to pay DEP for the costs of operating and financing the water and sewer system.



According to CIS, during Fiscal Year 2007 there were a total of 765,431 accounts associated with residential properties citywide that were billed a total of approximately \$1.4 billion in water and sewer charges.

### **Objective**

The objective of the audit was to determine whether DEP has adequate controls over the billing of water and sewer charges for residential properties to ensure (1) that bills are accurate and (2) that it has properly identified all properties whose accounts should be billed.

### **Scope and Methodology**

The audit scope period was July 2006 through April 2008.

To obtain an understanding of the responsibilities, goals, and regulations governing DEP regarding water and sewer billing, we reviewed and used as audit criteria:

- DEP, *New York City Water Board Water and Wastewater Rate Schedule* (Effective July 1, 2006),
- DEP, *Water and Sewer Bills Frequently Asked Questions*,
- Chapter 893 of New York State Law of 1980,
- DEP, *General Instructions and Application for Exemption From Water and Sewer Charge*,
- The lease between DEP and the New York City Water Board,
- DEP, *Contract Specification for Water Meter Reading Citywide*,
- DEP, *Bureau of Customer and Conservation Services Customer Information System Inquiry Manual*,
- DEP, *List of Approved Water Meters and Related Equipment with Typical Water Meter Setting Details and Regulations*,
- DEP *Permit Policy*, and
- DEP Standard Operating Procedures (issued during this audit) such as *Assessment of Property Profile*, *Review and Assessment of Account History*, *Account Analysis of Problematic Meters*, *Trigger Noting Accounts*, and *Reconciliation of Overestimated Reads Adjustment*.

In addition, we interviewed DEP officials, including: the Deputy Commissioner of BCS, Treasurer of the New York City Water Board, Administrator of BCS, Director of Billing Operations, Director of Collection Operations, Director of Customer Operations, Director of Management Analysis, Director of Field Operations, Director of Program Implementation, Audit Compliance Manager, Customer Service Manager, Deputy Director of the Customer Relations Unit, Supervisor of Exemption Unit, Supervisor of Mail Services, Associate Project Manager of Con Edison Contract, and Director of Meter and Technical Services.

To obtain an understanding of CIS and its browser application system (BAPPS), we interviewed system officials, including: the Director of the Office of Information Technology

(OIT), Mainframe and BAPPS Development Manager, CIS Support Manager, and Director of OIT's Application Development Unit. We also received training on CIS and BAPPS.

### **Reliability of CIS Data**

We requested and DEP provided us an Access spreadsheet extracted from CIS containing water and sewer billing data for 765,431 accounts associated with residential properties throughout the five boroughs that were billed during Fiscal Year 2007.<sup>3</sup> The billing data for each property included an assigned DEP account number, block and lot number, address and borough where water service was provided, owner name, property classification, and the total number of estimated bills and actual bills for the period.

To test the reliability of the billing data in CIS, we sorted the spreadsheet by the assigned DEP account number in consecutive order and determined whether any numbers appeared more than once. Next, we sorted the spreadsheet by borough and found 64 accounts in which the following fields lacked information: block and lot number, borough, service address, and mailing address. The only fields that contained information were the owner name and the assigned DEP account number.

We then eliminated a total of 57,842 accounts from the spreadsheet as follows. We eliminated 64 accounts that lacked information for the borough fields since our analysis included accounts that had this information. We also eliminated 57,778 accounts billed on a frontage basis since our analysis included accounts billed on a metered basis. Next, we performed the following tests:

- We sorted the spreadsheet by borough and determined the number of accounts within each borough that received estimated bills exclusively during Fiscal Year 2007. We then randomly selected 25 accounts that received only estimated bills as follows: 5 accounts from a population of 26,047 in Brooklyn, 5 accounts from a population of 5,710 in the Bronx, 5 accounts from a population of 2,592 in Manhattan, 5 accounts from a population of 24,616 in Queens, and 5 accounts from a population of 3,846 in Staten Island. We determined whether the information recorded in the spreadsheet matched information in the hard-copy files of BCS.
- We sorted the spreadsheet by borough and determined the number of accounts that received at least one actual bill (i.e., from a meter reading) within each borough during Fiscal Year 2007. We then randomly selected 25 accounts as follows: 5 accounts from a population of 197,711 in Brooklyn, 5 accounts from a population of 60,805 in the Bronx, 5 accounts from a population of 20,907 in Manhattan, 5 accounts from a population of 260,900 in Queens, and 5 accounts from a population of 104,455 in Staten Island. We determined whether the information recorded on the spreadsheet matched information in the hard-copy files of BCS.

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<sup>3</sup>The residential properties included in the spreadsheet were of the following classes: Class A (One-Family Dwellings), Class B (Two-Family Dwellings), Class C (Walk-Up Apartments), Class D (Elevator Apartments), Class R (Condominiums), and Class S (Multiple-Use Buildings—Residential and Commercial).

In total, our test of the reliability of the data included a review of 114 accounts—50 accounts with 204 corresponding bills totaling \$131,737, and 64 accounts with accounts receivable balances totaling \$86,185. We found issues for just the 64 accounts, which represented only 0.01 percent of the 765,431 accounts associated with residential properties. We therefore concluded that the water and sewer billing data was reliable.<sup>4</sup>

To conduct our tests, we reviewed relevant data from BAPPS from the following: Account Information screen (owner and service address information), image of bills issued, Customer Notes screen (staff notes documenting actions taken on an account), Information for Meter screen, Condition Code screen (codes indicating why Con Edison could not obtain readings), Order History screen (work order information), Metered Billing Detail (meter consumption information for each billing period), Account Summary screen (information of bills issued and payments received), and Address Change History screen.

In addition, we reviewed property information from the Department of Finance's (DOF) Automated City Register Information System (ACRIS) and Notice of Property Value and from the Department of Building's (DOB) Property Profile Overview, Certificate of Occupancy Listing, and Job Overview.

### **Tests for Accuracy of Water and Sewer Charges**

#### ***Calculation of Water and Sewer Charges***

We determined whether DEP accurately calculated water and sewer charges during Fiscal Year 2007 for the 204 bills in our sampled 50 accounts.<sup>5</sup> For the 97 bills in our sample in which DEP obtained actual readings, we obtained DEP's Meter Attribute Table, which lists each type of meter and corresponding multiplier. From this list, we determined the multiplier that should be applied to the meters in our sample. Next, we obtained the *New York City Water Board Water and Wastewater Rate Schedule* to determine the rate charge that applied during the billing period in our sample. We then applied the appropriate multiplier, the rate set by the Water Board, and the sewer rate, and determined the water and sewer charges for which DEP should have billed the accounts.

For the 107 estimated bills in our sample, we reviewed each account's consumption of water over the past year and arrived at an average amount of water use, which was based upon DEP's own

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<sup>4</sup>We did not conduct a technical review of CIS.

<sup>5</sup>The water portion of a bill is calculated by determining current water use (the difference between the meter's current reading and prior reading) and multiplying this amount by a factor (multiplier) that is dependent upon the size, manufacturer, and age of the meter in order to convert the use into units of 100 cubic feet. The result is then multiplied by the current rate set by the Water Board. The sewer portion of a bill is 159 percent of the water portion.

criteria, and then applied the above-mentioned formula.<sup>6</sup> For both actual and estimated bills, we compared the amount that we calculated to the amount that was actually billed by DEP.

In addition, we reviewed the bills in our sample to determine whether late payment charges were applied by DEP. If so, we applied DEP's formula for calculating late payment charges and determined the dollar amount that DEP should have charged. We then compared the amount that we calculated to the amount that was actually billed by DEP.<sup>7</sup>

Furthermore, we reviewed the history of all bills issued (dating back to 1995 in some cases) for each of the sampled 50 accounts and identified all the bills that were estimated. We then reviewed relevant data in BAPPS and determined for those accounts that received three or more consecutive estimated bills whether DEP inspectors investigated the accounts, and if so, whether DEP took the necessary actions to ensure that future bills were based on actual readings. For those accounts that had estimated bills beyond the third consecutive estimated bill, we calculated the length of time DEP continued to estimate the bills without investigation.

#### ***Verification of Actions Recorded in the Customer Notes Screen***

We reviewed all the comments recorded in the Customer Notes screen (dating back to 1995 in some cases) for each of the sampled 50 accounts and identified the actions taken on the accounts, such as adjusting billing periods, issuing work orders to inspect, repair, or install meters, posting of payments, beginning the billing for new meter installations, stopping the billing for meters permanently removed, assessing surcharges for failure to install meters, and changing address or ownership information. We reviewed various screens in BAPPS such as Account Information, Order History, Metered Billing Detail, and Account Summary to verify that the actions recorded did in fact occur.

During the course of our review, we noted that DEP made numerous adjustments to accounts generally because of estimated bills being canceled and the cycles being rebilled based on actual readings. As a result, we decided to review all cycles (dating back to 1995 in some cases) for each of the 50 accounts to determine whether all cycles were billed using either actual or estimated readings, all canceled cycles were rebilled as they should have been, and no cycles were double-billed.

#### ***Monitoring of Work Orders Related to Meters or Remotes***

To ascertain whether DEP monitors accounts so that the necessary work related to the installation, inspection, repair, or replacement of meters or remotes is completed and results in accurate billing, we performed the following tests:

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<sup>6</sup>Depending on an account's billing cycle we used either three or four prior bills during the year to obtain the average amount of water use. In addition, we eliminated from our calculation any prior bills that were canceled or rebilled.

<sup>7</sup>Late payment charges are automatically assessed at .75 percent interest per month (or 9 percent annually).

- We reviewed all closed work orders (work that DEP considers resolved) for each of the sampled 50 accounts (dating back to 1995 in some cases).
- For any new meter installations, we determined whether DEP inspected the meters to ensure that they were working properly prior to billing, as required. If so, we calculated the number of days between the dates that the meters were installed to the dates that the meters were inspected to determine whether the inspections were conducted in a timely manner. We also checked whether these accounts started to be billed prior to inspection.
- In addition, for any work on meters or remotes that should have been but was not completed due to either the work being canceled temporarily or inspectors being unable to gain access to the properties, we determined whether DEP attempted to gain access again and ultimately completed the work. If the work was completed, we determined whether it was completed in a timely manner.
- DEP provided us with a listing of 43,680 overdue work orders within all five boroughs as of February 1, 2008, sorted by type of work order. We then judgmentally selected 5 types of work orders from a population of 20 since those 5 types had the largest number of work orders that were overdue, according to the listing.
- Next, we judgmentally selected 52 work orders from that group of work orders.<sup>8</sup>
- We then reviewed data in BAPPS to determine whether the work on the meters or remotes was in fact overdue as indicated on the listing. For those work orders that were overdue, we calculated the number of days between the dates that the work was expected to be completed by DEP (due dates) to the dates on which we generated the information from BAPPS to determine the length of time the work orders were overdue. In addition, we determined whether justifications for the work order delays were noted.

### ***Monitoring of Permits Issued to Plumbers***

We requested and DEP provided us a listing of 1,925 accounts that had open permits (both overdue and not yet due) as of October 12, 2007. These permits were issued to plumbers either to install meters to properties that never had meters, or to replace, add additional, or permanently remove meters. We sorted the listing by borough and randomly selected 10 accounts per borough for a total of 50 accounts.

We reviewed the permit data obtained from BAPPS for these 50 accounts and (1) determined whether the permits were returned (indicating that the work had been completed) or overdue. If overdue, we calculated the number of days between the dates that the permits were expected to be returned by the plumbers to the dates on which we generated the information from BAPPS and (2) for those permits that were returned, we determined whether DEP first inspected the

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<sup>8</sup>The work orders included 10 contractor orders for meter repairs and replacements, 10 inspection orders for meter installations, 10 test station orders for repairs or replacement of meters, 12 Universal Meter orders for new meter installations, and 10 warning/violation orders issued to plumbers.

meters to find out whether they were working properly and whether the accounts were subsequently billed, or, if meters were permanently removed, we determined whether DEP first inspected the meters and subsequently stopped the billing for those meters.

## **Identification of All Properties Whose Accounts Should Be Billed**

### ***Analysis of Inactive Accounts***

Since DEP did not provide us a listing of inactive accounts until many months after our request, we reviewed the Cross Reference—By Other (04-03) screen in CIS—and randomly selected 99 accounts classified as inactive during February and March 2008, the time period during which we printed out the information from CIS.<sup>9</sup>

We determined whether the properties associated with these accounts were legitimately inactive. To do so, we reviewed relevant data in BAPPS, and if we found that the block and lot numbers for any of these accounts were associated with other accounts in BAPPS that DEP classified as active, we concluded that the accounts were legitimately inactive (since they were being billed for service on the other active accounts). For those block and lot numbers in our sample that had no associated active accounts in BAPPS, we reviewed DOB and DOF property information systems to determine whether the accounts should be legitimately deemed inactive.

In addition, for those accounts that we determined should not have been classified as inactive, we estimated the water and sewer charges that should have been billed during the time period that the accounts were incorrectly classified.<sup>10</sup>

### ***Analysis of Exempt Properties***

We requested and DEP provided us two listings—one containing 1,979 exempt frontage accounts and the other containing 3,458 exempt metered accounts as of January 2008. We randomly selected 50 accounts—25 from each of the two lists. In addition, we judgmentally selected 21 accounts from the two lists that appeared questionable since the name of the owners for each of these accounts was not indicated, but either “owner occupant,” “owner,” or “new owner” was noted instead. We then determined for each of the 71 accounts whether DEP’s Exemption Unit maintained all documentation necessary for the exemption process, as required (e.g., a notarized Application for Exemption from Water and Sewer Charges, the New York State Certificate of Incorporation, and a letter from DEP granting the exemption).

In addition, for each of the 71 accounts, we first compared the effective dates of the exemptions as indicated on DEP’s exemption letters to the dates on which DEP put the accounts

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<sup>9</sup>Our original sample consisted of 98 accounts. However, when we reviewed data in BAPPS for one of the accounts, we discovered an additional inactive account. As a result, we increased our sample to 99 accounts.

<sup>10</sup>We calculated the unbilled amounts for each of the properties by obtaining from DEP the typical water consumption per year: for one-family dwellings (one unit), the typical consumption is 100,000 gallons, and for multi-family dwellings, the typical consumption is 85,000 gallons per unit.

on exemption status to find out whether the accounts were granted exemption status prior to DEP's approval. We then reviewed the water use of these accounts during Fiscal Year 2007 to determine whether any of them exceeded the limits imposed for exemption status. Finally, we reviewed DOF and DOB property information systems to determine whether the properties should in fact be exempt.

For those accounts that we determined should not have been exempt, we estimated the water and sewer charges that should have been billed during the time period that the accounts were incorrectly classified.

### *Updating Customer Information*

To determine whether DEP updates customer information in CIS so that bills are sent to the correct individuals and service addresses, we performed the following tests:

- Reviewed the Account Information screen that contains both DEP and DOF owner and service address information for each of the 50 sampled accounts and determined whether the information matched.<sup>11</sup> For any accounts in which the information did not match, we conducted additional research using DOF's property information systems, which generally contain the most current ownership information. Since we found a discrepancy between the DOF and DEP information for one of the sampled 50 accounts, we randomly selected 200 additional accounts from a population of 765,431 accounts and performed the above-mentioned tests.
- Determined whether the information missing from the fields of the spreadsheet for the 64 accounts was available in the hard-copy files of BCS. We found that the information was available—albeit not always logical. Some accounts contained the same block and lot number of “99999/9999,” while others did not have precise service addresses. For these accounts, we researched DOF's property information systems to determine whether we could obtain the actual block and lot numbers as well as the precise addresses.
- Requested and DEP provided us a listing of all the Customer Registration Forms (forms submitted by customers when updating their information, such as change of ownership, name, or mailing address) scanned by DEP into its Application Extender/WEBEX system on June 1, 21, and 28, 2007, the dates we judgmentally selected. We then randomly selected 50 Customer Registration Forms—15 from a population of 516 scanned on June 1, 2007, 15 from a population of 154 scanned on June 21, 2007, and 20 from a population of 1,028 scanned on June 28, 2007.

We printed the 50 Customer Registration Forms and reviewed relevant information from BAPPS to determine whether DEP updated the information in BAPPS as indicated on the forms. If there were additional Customer Registration Forms for the selected 50 owners that were scanned subsequent to the dates we judgmentally

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<sup>11</sup>DEP receives real property assessment data (owner and service address information) from DOF weekly.

selected, we reviewed them to determine whether DEP updated this information. For any accounts in which the information from the Customer Registration Forms did not match information in BAPPS, we obtained deed information from DOF's ACRIS and verified that DEP had the current owner information.

The results of our testing of the above-noted samples, while not projected to their respective populations, provided a reasonable basis to satisfy our audit objective.

This audit was conducted in accordance with generally accepted government auditing standards (GAGAS) and included tests of the 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 DEP officials during and at the conclusion of this audit. A preliminary draft report was sent to DEP officials and was discussed at an exit conference held on August 21, 2008. On November 3, 2008, we submitted a draft report to DEP officials with a request for comments. We received written comments from DEP on November 26, 2008. In their response, DEP officials agreed with 19 of the 23 recommendations. They disagreed with the recommendations to appeal to the Water Board to impose penalties against sellers and buyers who fail to inform DEP of a change of ownership and to impose an annual flat fee for exempt organizations that refuse to have meters installed on their properties. In addition, DEP officials disagreed with the recommendations to consult with Con Edison about the use of the wire connecting the two hand-held devices when obtaining readings from remotes and to include rebills in arriving at the average amount of water use for the calculation of estimated bills. DEP officials stated:

“We appreciate the diligence of your auditors in performing this audit. . . . Overall, in the instances where the Comptroller cited specific examples that warranted further investigation, DEP reviewed each instance and where necessary addressed each anomaly. In instances where DEP agrees with the Comptroller regarding the creation of a tracking system for monitoring purposes, DEP is in the process of deciding on the best possible way to implement such recommendations.”

The full text of the DEP response is included as an addendum to this report.



## FINDINGS AND RECOMMENDATIONS

In general, DEP has adequate controls in place to ensure that bills are accurate. However, DEP lacks the controls needed to ensure that it properly identifies properties whose accounts should be billed. As a result, there is an increased risk that accounts may not be billed for water and sewer use and monies due the City will go uncollected.

The following include the areas of concern we identified: properties incorrectly placed on inactive status resulting in their respective accounts not being billed an estimated \$11,409, lacking or incomplete exemption files, and a lack of monitoring of water use for exempt frontage accounts. The audit also found that an estimated \$26,177 was not billed to certain accounts because they were incorrectly classified as exempt from payment of water and sewer charges. In addition, DEP needs to improve its monitoring of accounts: there was untimely or lack of completion of work related to meters or remotes, and accounts with three or more consecutive estimated bills were not always investigated as required. DEP also has an inadequate tracking system for monitoring overdue work orders related to meters or remotes. Finally, DEP does not have formal procedures in place for calculating estimated bills in which the average amount of water use is computed manually or for assessing whether properties are eligible for exemption from payment of water and sewer charges.

We did find that for our sampled accounts, DEP correctly calculated the water and sewer charges based on the meter readings indicated in BAPPS and correctly calculated late payment charges. We verified that DEP used the correct average amount of water use for the calculation of the estimated bills in our sample. In addition, we verified that, in general, actions recorded in the Customer Notes screens did in fact occur, and all cycles were billed. We noted that DEP adequately monitors permits issued to plumbers to install meters at properties that never had meters and to replace, add additional, or permanently remove meters. Also, when Customer Registration Forms are submitted, DEP generally updates the owner information in CIS.

The findings are discussed in greater detail in the following sections of the report.

### **DEP Failed to Bill for Water and Sewer Charges When Properties Were Incorrectly Placed on Inactive Status**

Four of the properties associated with the 99 inactive accounts in our sample were incorrectly placed on inactive status by DEP and were therefore not billed for water and sewer charges. Based on our review and visits to the exterior of the properties, it appears that these properties should have been on active status at the time of our review. Therefore, DEP should have billed the associated accounts an estimated \$15,100 in water and sewer charges. We believe that this occurred because DEP has no tracking system in place to monitor properties that are placed on inactive status and whose accounts are consequently not billed for water and sewer charges. Thus, it is possible that DEP may not identify those properties that were correctly placed on inactive status at one time but that should no longer retain that status, the accounts of which should now be billed for water and sewer charges.

According to DEP officials, an account is classified as inactive when the property's water service has been terminated or when the property has been demolished. Officials also stated that if a property has been inadvertently billed on both a frontage and a metered basis on two separate accounts, they correct the error by making one of the accounts inactive. Finally, if a multiple-use property (residential and commercial) using two meters with two accounts converts to using a single meter for both uses under one account, then officials make the commercial part of the account inactive.

We determined that the length of time the four accounts were not billed and should have been billed for water and sewer charges ranged from nine months to almost eight years. According to the *New York City Water Board Water and Wastewater Rate Schedule*, DEP cannot issue a bill to a property for previously unbilled service after four years from the time water service was provided to the property. As a result, DEP can now collect only \$11,409 of the estimated \$15,100 in unbilled water and sewer charges.

For example, based on our review of BAPPS as well as DOF and DOB property information systems, we found that one property (sample #102i) in Queens was incorrectly placed on inactive status by DEP and the account was not billed for water and sewer charges but should have been. The land associated with this account's block and lot number is not vacant. In fact there is a 20 foot by 45 foot multiple-use building (primarily a one-family residence with a commercial part) on the land. The property's estimated market value for the tax year July 1, 2007, through June 30, 2008, is \$530,000. Also, there was no indication that water service to this property had been terminated.

A further review of data in BAPPS revealed that DEP apparently knew as early as May 2005 that the account for this property was not being billed when a work order was issued for this account that stated, "Set up new account not in CIS." However, other than recording the owner name, service address, and building classification in BAPPS, DEP set up no other information for the account, such as meter information or billing.

To determine the length of time the property owner was not billed for water and sewer charges, we calculated the difference between the date that the owner bought the property—January 31, 2005—to the date on which we printed the information from BAPPS—January 10, 2008. We found that the owner was not billed an estimated \$2,657 in water and sewer charges for three years. DEP can therefore recoup the whole amount.

In another example, a property (sample #101i) in Staten Island was incorrectly placed on inactive status by DEP. We found that the land associated with this account's block and lot number is not vacant and has an 18 foot by 42 foot residential one-family condominium building. The property's estimated market value for the tax year July 1, 2007, through June 30, 2008, is \$194,147. Again, there was no indication that water service to this property had been terminated.

A review of information in BAPPS revealed that on March 29, 2000—approximately eight years ago—DEP issued a work order to install a meter for this account. However, other than recording the owner name, service address, and building classification, DEP set up no other information, such as meter or billing information. In addition, the name of the owner on the account as of the date we printed the information from BAPPS—November 26, 2007—was not that of the

current owner. Thus, DEP apparently had not even updated the owner information. DEP did not bill this account an estimated total of \$4,086 for water and sewer charges for almost eight years. DEP can recoup only \$2,031 because of the four-year limitation.

During the exit conference, DEP officials stated they agreed that one of the four cited properties (sample #64i) in Brooklyn was incorrectly placed on inactive status for nine months by DEP and that its account was therefore not billed for water and sewer charges an estimated \$2,898. Subsequent to the exit conference, they provided us with a formal update that stated, “This property was legitimately a lost account. As a result of your inquiry, the account was made active and is now being billed accordingly.” We then reviewed information in BAPPS and verified that effective as of August 18, 2008, the account is being billed for current water use and has been back-billed for moneys owed for the unbilled periods.

For the remaining three cited properties that we determined were incorrectly placed on inactive status, DEP officials at the exit conference stated that they could not yet respond since they are in the process of investigating the properties. Subsequent to the exit conference, we reviewed information in BAPPS and verified that DEP is indeed attempting to inspect these three properties to determine whether their associated accounts should be billed.

Given the findings cited and the fact that it took DEP so long to provide us inactive account information, it is evident that these properties are not being tracked. In fact, we found that none of DEP’s internal statistical reports identify inactive accounts. In November 2007, we requested from DEP a listing of all inactive accounts so that we could randomly select accounts and conduct our testing. However, DEP officials stated that this information was not readily available. Finally, in February 2008—three months after our request—we obtained a listing of 110,679 inactive accounts as of that date.

In addition, the reasons DEP placed the accounts on inactive status are not always apparent in the BAPPS information. Documentation for 46 (46 percent) of the sampled 99 accounts contained no stated bases for rendering the accounts inactive. As a result, it was difficult at times for us to determine whether the accounts should legitimately have been deemed inactive. Instead, we had to rely primarily on information in the DOF and DOB property information systems as a basis for our conclusions.

Without a tracking system, management cannot adequately monitor the total population of inactive accounts within all five boroughs and identify those properties that were correctly placed on inactive status at one time but that no longer qualify for that status. As a result, the potential exists for the City to lose revenue by failing to bill accounts for water and sewer services.

During the exit conference, DEP’s Director of Billing Operations agreed that a tracking system to monitor inactive accounts would be helpful and stated that DEP is in the process of developing ways to monitor the inactive accounts. DEP’s Deputy Commissioner of BCS said that DEP is aware that there are a certain number of “lost” accounts that are not being billed but should be. He stated that DEP receives weekly real property assessment data from DOF and matches this data with DEP data recorded in CIS to try to capture lost accounts. While we agree

that this is a good method to identify some lost accounts that are not being billed, it does not capture all such accounts. Conducting matches of DOF and DEP data captures only those accounts not recorded in CIS. This match, for example, will not capture those accounts that are recorded in CIS and that DEP has correctly placed on inactive status at one time but that should no longer retain this status, the accounts of which should now be billed for water and sewer charges. Therefore, DEP needs to create a tracking system that would effectively monitor inactive accounts.

### **Recommendations**

DEP should:

1. Investigate the four accounts that we determined were incorrectly placed on inactive status and that should, therefore, be billed for water and sewer charges. After examination, and if warranted, start billing the accounts and recoup the moneys owed for the unbilled periods.

**DEP Response:** DEP agreed and stated, “The Comptroller contends that the properties in question were ‘incorrectly placed on inactive status.’ However, this has yet to be determined, as the investigation of these properties is ongoing due to denial of access issues. If DEP determines that these properties are receiving services for which they are not being billed, the property owners will be billed retroactively in accordance with the New York City Water Board’s policy.”

2. Create a tracking system that would effectively monitor the inactive accounts. This system should include, but not be limited to: the date the account becomes inactive, the reason the account has become inactive, the history of work orders associated with the account (including the dates that they were issued), and an indication of whether or not the account will permanently remain on inactive status.

**DEP Response:** DEP agreed and stated, “DEP’s Office of Information Technology (OIT) has been provided with preliminary business requirements for a tracking system. OIT will review the business requirements and add the system to its application development schedule.”

3. Periodically review properties placed on inactive status to ensure that they are legitimately inactive (e.g., by inspecting properties or reviewing DOF and DOB property information systems).

**DEP Response:** DEP agreed and stated, “DEP periodically reviews our records for potentially unbilled properties and we will continue to do so. We believe that developing a tracking system similar to the system recommended by the Comptroller will allow us to do so more effectively in the future.”

## **Issues with Exempt Properties**

### **Lacking or Incomplete Exemption Files**

The Exemption Unit could not find the exemption files for 32 (45 percent) of the 71 accounts we selected for our sample. In addition, 10 (26 percent) of the 39 accounts in our sample for which exemption files were found lacked one or more of the required documents necessary to complete the exemption process. As a result, we were unable to determine whether the Exemption Unit had all of the required documentation necessary before determining eligibility and whether any of the accounts were granted exemption prior to DEP's review and approval. In fact, our review of the DOF and DOB property information systems indicates that 3 of the 71 accounts have exemptions for which they do not appear to be eligible.

We determined that the length of time the three accounts were not billed for water and sewer charges ranged from six months to almost 15 years. Based on our calculations, DEP did not bill these accounts an estimated \$74,277 in water and sewer charges, of which only \$26,177 can be recouped because of the four-year limitation.

Exemption Unit officials stated that at one time, DEP's borough offices were responsible for handling the exemption process for properties in their boroughs. The process is now handled centrally at 59-17 Junction Boulevard in Queens. They added that it is possible that the files were misplaced during the transition or when many of the offices moved. Nevertheless, when the files were transferred from the borough offices to the central Exemption Unit office, a comparison should have been made of the accounts on the exempt lists and the actual files received. At the very least, those accounts for which there were no corresponding files should have been subjected to review to determine whether they were legitimately exempt.

Based on our review of the information in the DOF and DOB property systems, it appears that the accounts for 2 of the 32 properties for which there were no exemption files should be billed for water and sewer charges since they do not qualify as exempt organizations. For example, according to BAPPS information, one of the properties (sample #51ef) belongs to the Old Westminster Church in Brooklyn and has been on exempt status since at least 1995. However, according to the information in the DOF and DOB property information systems which we printed on February 13, 2008, this property no longer has an active church but has had a residential walk-up apartment building containing 12 units since June 1, 1993—almost 15 years ago. Because it did not periodically review exempt accounts to ensure that they are still properly exempt, DEP did not bill this account for 15 years for an estimated \$70,335 in water and sewer charges, of which only \$22,235 can be recouped because of the four-year limitation.

In addition, based on our review of the information in the DOF and DOB property systems, we found that for one of the 39 accounts in our sample in which an exemption file was found, the owner of the property had changed. Although the file contained the required documentation for the exemption process for the previous owner, the file was not updated to reflect current ownership and the exemption should have been revoked. According to DEP's exemption files, this property (sample #48ef) is owned by The Church of Our Lady of Mt.

Carmel. However, based on DOF and DOB property information systems, which we printed on February 13, 2008, the church sold the property to the National Museum of Catholic Art and History Realty, Inc., in Manhattan on August 7, 2007—six months ago. According to an Exemption Unit official, museums are not qualified for exemptions. DEP did not review this account periodically to make sure that the exemption status of the organization was still valid and did not bill this account for six months for an estimated \$2,164 in water and sewer charges.

Further, we found that for 14 of the 71 accounts in our sample, DEP did not have the correct name of the owner. According to the Account Information screens we printed from BAPPS in March 2008, there was no owner name for each of the 14 accounts, and either “owner,” “owner occupant,” or “new owner” was noted instead.<sup>12</sup> DEP should ensure that customer information in CIS is accurate so that bills are sent to the correct individuals.

At the exit conference, the Director of Customer Operations informed us that DEP has issued letters to the cited properties. The letters request the required documentation that we cited as lacking and necessary to complete the exemption process. She also stated that “going forward” DEP will ensure that files are maintained for all exempt accounts and that their files will contain all required documentation.

Subsequent to the exit conference, the Director of Customer Operations informed us that DEP inspected the three cited properties and agreed that they no longer qualify as exempt organizations. Therefore, the accounts should be billed for water and sewer charges. We reviewed information in BAPPS on September 19, 2008, and verified that DEP did indeed inspect the properties and obtained meter readings for two of the three properties. None of the properties has yet been billed.

The Director also stated that a seller of a property is required to inform DEP of a change of ownership but that many sellers do not do so. As a result, the change of ownership will go undetected unless DEP discovers it on its own. The Director added that for the three cited properties, it is apparent that the sellers never informed DEP. She further noted that DEP officials are not legally authorized to impose penalties against sellers who fail to inform them about a change of ownership. Consequently, it is essential that DEP periodically reviews the ownership of properties that have already been granted exemption to ensure that the owners still occupy the properties and that the properties should therefore continue to be exempt.

### **Lack of Monitoring of Water Use for Exempt Frontage Accounts**

DEP does not monitor water use of exempt frontage accounts. Our review of BAPPS information revealed that for 23 (88 percent) of the 26 exempt frontage accounts in our sample, there was no evidence that meters were installed to monitor water use. According to the *General Instructions and Application for Exemption from Water and Sewer Charges*, certain dollar limits are to be imposed on the amount of the exemption, which is to be based on the organization’s water use. Frontage accounts are required to have meters installed, which are to be placed on a monitor-only (I-MON) status in CIS. As a result, DEP is unable to determine whether any of the 23

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<sup>12</sup> There was a total of 21 accounts in which the name of the owners was not indicated. However, 7 of these accounts were inactive. For purposes of this analysis, we cited only the remaining 14 active accounts.

properties are exceeding certain levels of water use. The accounts of which are therefore liable for payment for some portion of their water consumption.

During the exit conference, the Director of Customer Operations stated that DEP could merely suggest to the organizations of exempt frontage accounts that they install meters. She said that according to the *New York City Water Board Water and Wastewater Rate Schedule*, DEP can impose an annual surcharge to owners who fail to install meters that is “equal in amount to 100% of the last annual water charge.” However, this method of calculating the annual surcharge is not adequate for exempt organizations that refuse to have meters installed on their properties. Since these organizations are not billed for water and sewer charges, they will have no prior “annual water charges” for which to base the surcharge. As a result, the surcharge will amount to zero.

The Director further added that DEP cannot legally revoke exemptions from the organizations of exempt frontage accounts that refuse to have meters installed on their properties. However, she informed us that DEP will not grant exemptions for any Exemption Applications currently being submitted to the Exemption Unit unless the organizations have installed meters. Nevertheless, DEP should at the very least ensure that it issues letters to each of the frontage accounts that have already been granted exemptions but lack meters, suggesting that meters be installed.

### **Recommendations**

DEP should:

4. Investigate the three accounts that we determined should not be exempt from payment of water and sewer charges. After examination, and if warranted, start billing the accounts and recoup the moneys owed for the unbilled periods.

**DEP Response:** DEP agreed and stated, “DEP has investigated the properties in question and, where appropriate, issued retroactive bills in accordance with the New York City Water Board’s policy.”

5. Ensure that all exempt accounts have files that contain all of the required documents (i.e., a notarized Application for Exemption from Water and Sewer Charges, the New York State Certificate of Incorporation, and a letter from DEP granting the exemption) necessary to complete the exemption process.

**DEP Response:** DEP agreed and stated, “DEP has begun a review of its records related to exempt properties to ensure that all required documents are on file. Where appropriate, we will contact customers to obtain required documents and update our files accordingly.”

6. Ensure that the necessary changes (i.e., owner name information) are made in CIS for the 14 accounts we cite.

**DEP Response:** DEP agreed and stated, “DEP has researched the accounts in question and, where appropriate, have updated our records accordingly.”

7. Appeal to the Water Board to impose penalties against sellers and buyers who fail to inform DEP of a change of ownership.

**DEP Response:** DEP disagreed and stated, “The Water Board is not empowered to impose ‘penalties’ against property owners who fail to inform DEP of a change in ownership. However, the failure of an owner to notify DEP of a change in ownership does not relieve the owner of liability for water and sewer charges.”

**Auditor Comment:** We do not understand why the Water Board cannot impose penalties against property owners who fail to inform DEP of a change in ownership given the fact that it imposes charges (or penalties) for other instances of noncompliance with DEP requirements outlined in the *New York City Water Board Water and Wastewater Rate Schedule*. For example, the accounts of properties to which DEP cannot gain access will be imposed a \$50 denial-of-access charge by the Water Board after the issuance of several notices.

According to DEP’s *New York City Water Board Water and Wastewater Rate Schedule*, “Property owners are responsible for ensuring receipt of water and sewer bills and related notices. To this end, property owners must file a Customer Registration Form for Water and Wastewater Billing when a property is acquired or when a change in the mailing address occurs . . . to ensure receipt of water and wastewater bills and related notices.” It appears that DEP officials consider this merely a suggestion rather than a requirement and as such does not compel enforcement. Since it is apparent that DEP requires property owners to file Customer Registration Forms, which are used to inform DEP of a change in ownership, we urge DEP to initiate enforcement of this requirement. Accordingly, we reaffirm our recommendation.

8. Ensure that meters are installed and placed on a monitor-only status in CIS at all exempt frontage accounts.

**DEP Response:** DEP agreed and stated, “DEP has begun reviewing all exempt frontage accounts and will work with the property owners to ensure that these properties are properly metered.”

9. Appeal to the Water Board to impose an annual flat fee—rather than imposing a surcharge based on the last annual water charge—for exempt organizations that refuse to have meters installed on their properties.

**DEP Response:** DEP disagreed and stated, “DEP is currently planning a customer outreach effort, not to strip exempt organizations of their exemption status, but rather to inform each organization of the importance of metering and the need for DEP to better monitor consumption citywide.”



**Auditor Comment:** We are pleased that DEP is currently planning a customer outreach effort to inform each organization of the importance of metering. However, in its response, DEP officials did not specifically address the recommendation to appeal to the Water Board to impose an annual flat fee for exempt organizations that refuse to have meters installed on their properties. In addition, we did not suggest that DEP should “strip exempt organizations of their exempt status.”

As stated previously, according to the *New York City Water Board Water and Wastewater Rate Schedule*, DEP can impose an annual surcharge to owners who fail to install meters that is “equal in amount to 100% of the last annual water charge.” However, this method of calculating the annual surcharge is not adequate for exempt organizations that refuse to have meters installed on their properties. Since these organizations are not billed for water and sewer charges, they will have no prior “annual water charges” for which to base the surcharge. As a result, the surcharge will amount to zero. Therefore, we stand by our recommendation and believe that imposing an annual flat fee would encourage exempt property owners to have meters installed for monitoring purposes.

### **DEP Needs to Improve Its Monitoring of Accounts**

We reviewed all closed work order information and other relevant data from BAPPS for the 50 accounts in our sample billed during Fiscal Year 2007. We found that DEP needs to improve its monitoring of accounts to ensure that the necessary work for the installation, inspection, repair, or replacement of meters or remotes is completed and whether it is completed in a timely manner. It must also ensure that accounts receiving three or more consecutive estimated bills are investigated. DEP did not adequately monitor 19 (38 percent) of the 50 accounts in our sample.<sup>13</sup> Inadequate monitoring increases the risk that accounts may not be accurately billed.

#### **Untimely or Lack of Completion of Work Related to Meters or Remotes**

For 3 of the 50 accounts, DEP either failed to complete or was untimely in its completion of work related to the installation, inspection, repair, or replacement of meters or remotes. DEP has not developed procedures governing the length of time it should take to complete work for an account. For purposes of our analysis, we judgmentally considered six months (i.e., two billing cycles) to be an adequate measure of the timely completion of work. Further, although we reviewed all closed work orders for each of the 50 accounts dating back to 1995 in some cases, to be reasonable and to ensure that our analysis reflected a current representation of how DEP is monitoring accounts, we cited only those accounts in which DEP did not ensure (1) that the necessary work for the installation, inspection, repair, or replacement of meters or remotes was completed subsequent to July 2005, or (2) that the work was completed in a timely manner subsequent to July 2005.

For example, Con Edison had been unable to obtain actual readings because of a defective remote for an account (sample #E-02-04) of a property in the Bronx. On June 6, 2001,

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<sup>13</sup>Two of the 19 accounts lacked monitoring for more than one aspect.

a work order was issued to inspect the remote. However, the work order was canceled. On April 3, 2002—10 months later—DEP attempted to inspect the defective remote but was unable to do so since there was no access to the property. It was not until May 7, 2003—one year later—that DEP attempted again to repair the defective remote, but was again unable to gain access. Finally, on June 6, 2003, DEP was able to inspect the remote and indicated in its resolution, which was recorded in BAPPS, that both the remote and meter were working properly. It took DEP two years from the issuance of the initial work order to finally inspect the remote. Subsequent to June 2003 and up until the date we printed the information from BAPPS—November 2007—Con Edison occasionally recorded that it was unable to obtain actual readings due to a defective remote.

The untimely or lack of completion of work increases the likelihood of the issuance of estimated bills and the subsequent adjustments to them to correct any inaccuracies. During the course of our review, we noted that DEP made numerous adjustments to accounts generally because of the cancellation of estimated bills and the rebilling of cycles based on actual readings. The frequently cancellation of billing cycles can increase the risk that DEP will fail to rebill the owners.

#### **Accounts Receiving Three or More Consecutive Estimated Bills Not Always Investigated**

DEP did not always investigate accounts with three or more consecutive estimated bills, as required. The lack of adherence to this procedure occurred in 15 of the 50 accounts in our sample billed during Fiscal Year 2007. Although we reviewed the history of all bills issued dating back to 1995 in some cases, to be reasonable and to ensure that our analysis reflected a current representation of how DEP is monitoring accounts, we cited only those accounts that had estimated bills beyond the third consecutive estimated bill subsequent to July 2005. The 15 such accounts continued to receive estimated bills beyond the third consecutive estimated bill for a period ranging from six months to 8 ½ years.

Generally, bills for accounts of properties with meters are billed based upon actual consumption measured by Con Edison either through a remote or directly from a meter. The readings are then electronically uploaded into CIS to be used in the calculation of bills.

For obtaining a reading from a remote, a hand-held device is used. This reading is then manually, rather than automatically, recorded by Con Edison in a second hand-held device. We were informed by DEP officials that a wire connecting the two hand-held devices could be but is not used by Con Edison. This wire would automatically transfer the meter reading from one device to the other, making human intervention unnecessary and thus minimizing errors that could occur when manually recording the reading. On the other hand, for a reading obtained directly from a meter, only the second hand-held device is used and the reading is manually recorded in this device. In both instances, Con Edison manually records the readings and this increases the likelihood of incorrect readings uploaded into CIS.

DEP will issue an estimated bill when Con Edison is unable to obtain a reading because a property has a defective or obstructed remote or meter, or because a property is locked or inaccessible. There are also situations in which Con Edison obtains a reading from a property, but

the reading is not in sync with the history of readings for the property for reasons such as Con Edison incorrectly recording the reading measured from either a remote or a meter as mentioned above. In such cases, DEP's billing system rejects the reading and issues an estimated bill. According to DEP procedures, accounts are to be monitored through various reports to ensure that those with three or more consecutive estimated bills are investigated.

The following are some examples in which DEP failed to monitor accounts with three or more consecutive estimated bills:

- An account (sample #E-02-03) of a property in the Bronx had consecutive estimated bills dating back to January 20, 1998. According to procedures, DEP should have investigated this account after it received its third consecutive estimated bill on July 24, 1998. It was not until the account had received its fifth consecutive estimated bill in January 1999 that DEP attempted to investigate the estimated bills—and then only at the request of the customer. However, since the customer did not keep the appointment, an investigation never took place. As a result, the account continued to receive consecutive estimated bills without any DEP investigation until August 2007—8 ½ years later—when DEP replaced the existing meter. In October 2007, the account finally received its first bill based on actual consumption. Surprisingly, the subsequent bill in January 2008 was estimated. Con Edison reported that it was unable to locate the meter or remote in order to obtain a reading.
- An account (sample #E-03-02) of a property in Brooklyn had consecutive estimated bills dating back to February 11, 2003. According to procedures, DEP should have investigated this account after it received its third consecutive estimated bill, which was August 11, 2003. However, it has been 4 ½ years since the third consecutive estimated bill, and the account is still—as of April 2008—receiving estimated bills, all of which are a result of Con Edison's inability to obtain readings because of various reasons such as “Cannot Locate,” “Building Locked,” and “Meter Obstructed.” DEP has not investigated any of the estimated bills.

At the exit conference, DEP officials concurred with our finding and stated that the meter for this account “has been referred to the Hard-to-Access contractor.” DEP has hired Contract Callers Inc., (CCI) to obtain reads for meters that have a history of being hard-to-access or frequently estimated. CCI is authorized to inspect such meters on behalf of DEP.

DEP officials at the exit conference stated that they have reviewed and agreed with most of the findings related to the 19 cited accounts and are immediately taking action to update the accounts so they are accurately billed. DEP's Deputy Commissioner of BCS expressed that one of the biggest obstacles for DEP when inspecting properties is customers not allowing inspectors to gain access to the remotes or meters. Consequently, the accounts for properties in which DEP cannot gain access will chronically have estimated bills. He added that the \$50 denial-of-access fee that is imposed on customers after the issuance of several notices is an extremely low amount and is not enough to discourage customers from not allowing DEP inspectors on their properties.

DEP officials also stated that generally they strive to investigate accounts with three or more consecutive estimated bills. They added that although the investigation of such accounts is stated in DEP Standard Operating Procedures, it is not a mandated requirement by the *New York City Water Board Water and Wastewater Rate Schedule*. They consider their Standard Operating Procedures only an internal document that provides direction on how to address problematic accounts. Officials conveyed that there are a lot of exceptions to the goal of investigating those accounts with three or more consecutive estimated bills that are based on “judgment calls and priority.”

Nevertheless, while we acknowledge that there may be reasonable exceptions, there were no written justifications for any of the accounts we cited indicating the reasons DEP did not investigate the accounts. DEP should ensure that it documents in BAPPS any reasons that problematic accounts are not investigated.

**DEP Response:** “The Report cites (on more than one occasion) that DEP is required to inspect meters that have received three or more consecutive estimates with the implication that if a meter does estimate as such and DEP does not investigate, DEP is not adhering to required procedure. This is not correct.

“DEP’s addressing meters that have consecutively estimated three or more times is a proactive process by DEP, not required procedure or policy. It is very much a city-wide ‘work in process’ in line with other initiatives; however, every chronically estimated meter cannot be addressed at the same time. Additionally, various factors not in the control of DEP, such as the denial of access to a residential property to fix or repair a meter, need to be considered. As a result, DEP agrees that there are some instances such as those cited by the Comptroller, whereby a meter will continue to estimate. DEP is confident that by focusing on operations, the hiring of the HTA [Hard-To-Access] contractor and the implementation of AMR [Automatic Meter Reading], a significant reduction in the estimated bill percentage will be achieved in the next three years.”

**Auditor Comment:** We agree that both the Hard-To-Access contract and the Automatic Meter Reading are initiatives that are in DEP’s best interest since they should help to reduce the percentage of estimated water and sewer bills. However, based on DEP’s response, it appears that DEP officials take lightly the *Account Analysis of Problematic Meters*, a standard operating procedure they themselves prepared and intended for DEP staff to follow that included the criteria we used to evaluate the accounts in our sample. DEP even indicated in this procedure, “The purpose of this document is to provide step-by-step directions for the analysis of problematic meters resulting from estimated bills, Con Ed condition code reports, or other indications of faulty or malfunctioning meter equipment.”

This procedure further states that DEP staff is to identify potentially problematic meters by reviewing reports that highlight anomalies in meter readings such as “meters that have estimated at least three consecutive times.” Once the meters have been identified, the staff is to investigate the situation of each meter by reviewing information in BAPPS, such as customer notes, open and closed work orders, type of meter, condition of the

property, and the meter's reading and billing history. After the review of this information, the staff is to determine whether a physical inspection of the meter is necessary. Another DEP Standard Operating Procedure, *Trigger Noting Accounts*, states that all interaction with customers and actions taken on customer accounts need to be noted in the customer notes. In the customer notes for the accounts we cited, there was no evidence to indicate that any investigations took place.

We agree that all meters that receive three or more consecutive estimate readings may not require a physical inspection. However, as stated in DEP's own procedures, these problematic meters should be investigated nonetheless and the results documented in the customer notes. DEP should also ensure that it documents in the customer notes any reasons that problematic accounts are not investigated.

### **Other Matters**

We identified other issues for 3 of the 50 accounts in our sample that further illustrate the need for DEP to improve its monitoring of accounts as follows:

- According to DOF property information, the current owner bought a property (sample #E-05-03) in Staten Island sometime in 2005. However, the account as indicated in BAPPS as of November 2007 reflected a previous owner who had notified DEP in September 2001 that he had sold the property sometime in August 1998 and that he had been inadvertently paying the water and sewer charges for this property for three years. Despite this notification and the subsequent adjusting of the account—almost seven years ago—DEP still had not updated ownership information for the account. Subsequent to the exit conference, we learned that DEP updated the owner information in BAPPS, effective August 8, 2008.
- There is conflicting meter information recorded in BAPPS for an account (sample #A-01-03) of a property in Manhattan. According to the Metered Billing Detail screen we printed from BAPPS in November 2007, the meter that is being billed is not the meter that had been installed and inspected by DEP. At the exit conference, DEP officials stated that they will “investigate the matter and update our records accordingly.”
- DEP performed unnecessary work for an account (sample #E-04-05) of a property in Queens. On March 2, 2006, DEP performed an inspection and found that the remote was obstructed by a fence and relocated the remote. In addition, the inspector noted that the remote was working properly. Subsequently, on four separate occasions all within the same year and all at the request of the customer, DEP inspected the meter and remote and found each time that they were working properly.

### **Recommendations**

DEP should:

10. Review the 19 accounts we cite as not having been adequately monitored, and if warranted, immediately take action to update the accounts so they are accurately billed and bills are sent to the correct individuals and service addresses.

**DEP Response:** DEP agreed and stated, “DEP’s review of the 19 accounts cited shows that:

- 10 of the accounts were cited for issues that were resolved by DEP before the issuance of the Comptroller’s Preliminary Draft report.
- 6 of the accounts were resolved since DEP received the Draft report.
- 3 of the accounts are still under investigation, as we are experiencing access problems. All 3 of the accounts have been referred to our Hard to Access contractor.”

11. Develop procedures governing the length of time it should take to complete work related to the installation, inspection, repair, or replacement of meters or remotes. These procedures should include the steps to be taken for any work that should have been but was not completed due to either the work being canceled temporarily or inspectors being unable to gain access to the properties.

**DEP Response:** DEP agreed and stated, “DEP will re-visit its current processes and where necessary, update or create procedures accordingly.”

12. Improve its oversight of accounts to ensure that work related to the installation, repairing, or replacement of meters or remotes is completed in a timely manner and that accounts receiving three or more consecutive estimated bills are investigated.

**DEP Response:** DEP agreed and stated, “DEP will consider its findings regarding its response to recommendation #11 and initiate steps to engage its supervisors and/or Quality Assurance staff to monitor the compliance of such procedures. Although not required procedure or policy, DEP will continue to proactively review accounts with three or more consecutive estimated bills.”

13. Consult with Con Edison about the use of the wire connecting the two hand-held devices when obtaining readings from remotes. This wire should be used since it would minimize errors when recording readings that could result in estimated bills.

**DEP Response:** DEP disagreed and stated, “Con Edison tested the use of cables for their hand held computers and probes, but found the cables repeatedly needed repairs and were not dependable. DEP believes the best way to minimize errors when recording readings is to focus our efforts on a transition to AMR technology.”

**Auditor Comment:** DEP officials did not inform us during numerous interviews throughout the course of the audit that Con Edison actually tested the wires and found that they repeatedly needed repairs and were not dependable. In addition, we were not provided with any documentation to support DEP’s contention that Con Edison actually tested the use of

wires. Nevertheless, we believe that as long as Con Edison continues to record readings and until AMR is implemented, DEP should ensure that it makes use of every available resource to minimize errors.

14. Appeal to the Water Board to increase the denial-of-access fee.

**DEP Response:** DEP agreed and stated, “DEP is in the process of evaluating alternatives to the \$50 denial of access charge and will consider bringing any proposed changes to the Water Board in time for the April 2009 rate setting.”

### **Inadequate Tracking System to Monitor Overdue Work Orders Related to Meters or Remotes**

For 30 (58 percent) of the 52 overdue work orders in our sample, it appears that the work was never done. Further, there were no written justifications indicating the reasons the work had not been performed for 19 (63 percent) of the 30 work orders. For the remaining 22 overdue work orders, it appears that DEP had actually performed the work. However, for 17 (77 percent) of the 22 work orders, DEP failed to indicate work-order resolutions and close them in CIS. This condition was allowed to exist because DEP does not have an adequate tracking system to monitor overdue work orders related to meters or remotes. As a result, DEP management is hindered in its ability to ensure that work is completed so that accounts can be billed on actual water use.

For the 30 overdue work orders, the length of time between the due dates to the dates on which we printed the related data from BAPPS ranged from two months to nine years. For example, DEP issued a work order on June 25, 2004, that had a due date of July 25, 2004, for a new meter installation (sample #19wo). Based on our calculations, we determined that the work order had been overdue for almost four years. There was no evidence based on our review of data from BAPPS that the meter has ever been installed. Further, there was no written justification indicating the reason the work had not been performed. As a result, the account for this property is still being billed based on frontage, not meter readings.

In addition, for the 22 overdue work orders, the length of time between the due dates to the dates on which we printed the related data from BAPPS ranged from one month to 11 years.<sup>14</sup> For example, DEP issued a work order on June 4, 1999, that had a due date of August 12, 2002, for a new meter installation (sample #18wo). Based on our calculations, we determined that the work order had been overdue for 5 ½ years. Since the work order was overdue, it appeared that the meter had not been installed. However, based on the Metered Billing Detail screen for this account, we found that the meter had in fact been installed and the account’s first bill for this meter was on October 4, 1999. Apparently, DEP failed to indicate a work-order resolution and close the work order in CIS. To avoid a possible duplication of effort, work orders should be closed and resolutions indicated when either work is actually performed or attempts have been made.

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<sup>14</sup>Four of the 22 work orders were in fact overdue as indicated on DEP’s listing of overdue work orders. However, as of the date we printed the data from BAPPS, DEP had actually performed the work and closed them in CIS. Therefore, to determine the length of time that the work orders had been overdue, we calculated the number of days between the due dates and the dates that the work was completed (processed date).

In another example, DEP had issued a work order on August 2, 1997, that had a due date of October 2, 1997, for a repair or replacement of a meter (sample #11wo). We calculated the length of time between the due date and the date on which we printed the related data BAPPS and found that the work order had been overdue for a little over 10 years. Since the work order was overdue, it appeared that the repair or replacement of the meter had not been performed. Upon further review, we found that this work had in fact been completed under another work order issued for a separate matter. Apparently, DEP failed to indicate a resolution and close our sampled work order.

Without an adequate tracking system, there is no way for management to ensure that all work orders are being addressed to monitor the length of time work orders are overdue, and to ensure the closing of work orders whose work was completed under other work orders. During the exit conference, officials agreed that they need better controls over the work orders and added that they are in the process of implementing procedures that would help to effectively monitor their progress. We were also informed that the 52 overdue work orders cited have been investigated and are being addressed accordingly: DEP will perform the work for those overdue work orders in which the work still needs to be done and will close the overdue work orders for which the work has already been performed.

### **Recommendations**

DEP should:

15. Investigate the 52 overdue work orders and determine whether: (1) the work has already been performed, and if so, whether the work orders indicate resolutions and are closed, and (2) the work still needs to be done, and if so, whether immediate actions should be taken to perform the work.

**DEP Response:** DEP agreed and stated, “DEP has investigated these overdue work orders and has taken appropriate actions where necessary.”

16. Create a tracking system that would effectively monitor the overdue work orders.

**DEP Response:** DEP agreed and stated, “DEP will re-visit its current procedures for monitoring work orders, where necessary enhance its current procedures, and engage its supervisors and/or Quality Assurance staff to monitor the compliance of all procedures.”

17. Ensure that a work order is closed and indicates a resolution when DEP has completed the work and performed the work under another work order.

**DEP Response:** DEP agreed and stated, “DEP contends that the vast majority of our work orders are closed out with a proper resolution when work is completed. However, we acknowledge that this is not the case in every instance. We will continue to monitor compliance with our procedures related to work orders and take actions, as appropriate, to ensure they are followed.”



## **Procedural Issues**

### **Lack of Formal Procedures for Calculating Estimated Bills in Which the Average Amount of Water Use Is Computed Manually**

DEP does not have formal procedures in place to calculate estimated bills in which the average amount of water use is computed manually rather than automatically by CIS. The lack of formal procedures prevents DEP management from ensuring that every person involved understands, consistently follows, and accomplishes all the tasks necessary to manually estimate bills.

According to DEP officials, the water use that is applied in the calculation of an estimated water and sewer bill is derived by reviewing an account's water use over the past year—regardless of whether the use is estimated or actual—and arriving at an average amount of water use. We were informed that CIS automatically performs this calculation, eliminating any bills during the past year that were canceled or rebilled.

The Director of Billing Operations informed us that there are situations in which this automatic calculation in CIS does not apply and the water use has to be calculated manually and entered into CIS for billing purposes. He added that this occurs (1) when estimated water use over the past year for a property is unreasonably low, (2) when attempting to bill a previously unbilled service period, or (3) when an account is flagged to prevent CIS from automatically calculating the estimated bills.

The Director of Billing Operations acknowledged that there are no formal procedures for manually estimating bills and believes that although they are a “relatively rare occurrence,” there should be “detailed guidelines for estimating charges (manually or otherwise).” Since there are approximately 60 individuals within Billing Operations who can manually estimate bills, it is important that there be formal procedures so that, depending upon the situation, the appropriate method can be uniformly applied in the calculation of estimated bills.

#### ***Other Matter***

Although we verified that DEP used the correct average amount of water use for the calculation of the 107 estimated bills in our sample, we believe that the rebills should be included in arriving at the average amount of water use, since their inclusion would bring the average closer to actual use. Rebills are manual billing adjustments made to accounts that are generally the result of estimated bills being canceled and being rebilled based on actual readings. The period of time that the rebills cover vary and depends upon the number of estimated bills that were canceled.

According to DEP officials, rebills are not used in arriving at the average amount of water use since they are considered “Off Cycle” bills and CIS is programmed to obtain the average based solely upon “On Cycle” bills. Further, they stated that it would not be appropriate to include rebills in the calculations since the period of time that some cover may exceed the

previous year that is included in obtaining the average. We disagree, and in fact, we found that for some of the accounts in our sample in which rebills were eliminated the average amount of water use was significantly less than had the rebills been included.

For example, DEP calculated the average amount of water use for one of the bills in our sample (sample #E-01-03) to be 272 hundred cubic feet and the water and sewer bill to be \$1,239. However, by including the rebill, we calculated the average amount of water use to be 484 hundred cubic feet and the water and sewer bill to be \$2,269—a difference of \$1,030.

### **Lack of Formal Procedures for the Exemption Unit**

DEP also lacks formal procedures for assessing whether properties of certain organizations are eligible for an exemption from payment of water and sewer charges. The lack of comprehensive, formal procedures for the Exemption Unit hinders DEP management from ensuring that every person in the unit understands, follows, and accomplishes all required tasks. The introduction of procedures for the Exemption Unit would help to ensure that only qualified organizations are exempt from payment of water and sewer taxes.

According to DEP officials, the procedures they follow are contained in Chapter 893 of the New York State Law of 1980 (Law of 1980), Section 24-514 e, of the City's Administrative Code, and DEP's *General Instructions and Application for Exemption From Water and Sewer Charges*. However, these documents merely contain general, not detailed, guidelines for assessing new organizations requesting exemption and for periodically reviewing the eligibility status of organizations already granted exemptions.

In addition, DEP officials stated that when an organization requests an exemption from payment of water and sewer charges, it is responsible for completing and sending a notarized Exemption Application along with its New York Certificate of Incorporation to DEP's Exemption Unit for review. The unit, which consists of only three people (including the Deputy Director of Customer Relations), is responsible for reviewing the organization's application and Certificate of Incorporation, comparing the type of organization to the list of qualified organizations indicated on the *General Instructions and Application for Exemption From Water and Sewer Charges*, reviewing DOF property ownership information and data in BAPPS (such as customer notes and work orders), initiating a work order to have the property inspected, and either granting or denying exemption for the organization. If an exemption is granted, the unit sends a letter to the organization stating the effective date of the exemption.

We inquired whether DEP staff periodically review the frontage accounts and metered accounts that are granted exemptions to ensure that all of them should continue to be exempt and whether they revoke exemptions found not to be legitimate and start to bill the accounts. Officials stated that with limited staff, such a review is difficult and that they would review these accounts only if "something came up specific to the account." They have also acknowledged that there are no formal procedures for exemption reviews and believe there should be. In fact, the Supervisor of the Exemption Unit stated that she has on her own started to draft such procedures.

As stated in Comptroller's Directive #1, "Principles of Internal Controls": "Internal control must be an integral part of agency management in satisfying the agency's overall responsibility for successfully achieving its assigned mission and assuring full accountability for resources." Controls are the policies, procedures, techniques, and mechanisms used to enforce management's direction.

### **Recommendations**

DEP should:

18. Establish formal procedures for calculating estimated bills in which the average amount of water use is computed manually rather than automatically in CIS. The procedures should include all of the situations in which bills would be manually estimated and the appropriate methods for their calculations.

**DEP Response:** DEP agreed and stated, "DEP is in the process of developing standard operating procedures for manually calculating estimated bills."

19. Include rebills in arriving at the average amount of water use for the calculation of estimated bills since their inclusion would bring the average closer to actual use.

**DEP Response:** DEP disagreed and stated, "DEP believes this change is unnecessary. Re-bills are purposely excluded from the bill estimation routine since they often cover periods where the property's consumption was significantly higher or lower than current consumption. At the time a re-bill is issued, we require that our billing staff validate the appropriateness of the value that will be used to generate the next estimate and adjust if necessary. Considering a customer's pattern of consumption during a given period and taking certain real-life anomalies into consideration is an important part of the process. We do not believe that automation is an acceptable substitute for human judgment in these cases."

**Auditor Comment:** We believe that the rebills should be included in arriving at the average amount of water use, since rebills are based on actual readings. Therefore, including them would bring the average of the estimated bills closer to actual use. In fact, DEP's *Water and Sewer Bills Frequently Asked Questions*, which is posted on its Web site, states that estimated bills are issued based upon "good historical consumption information" when reliable reading information is not available. It appears to us that since rebills are based on actual readings, they represent "good historical consumption information." Accordingly, DEP should reconsider its position and include rebills in arriving at the average amount of water use when calculating estimated bills.

20. Develop and implement written procedures for the Exemption Unit. The procedures should include the steps that the Exemption Unit needs to take to ensure compliance with the rules governing exempt properties in the New York State Law and the City Administrative Code. Among the procedures should be those for handling new organizations requesting exemption from the payment of water and sewer charges and periodically reviewing the ownership of properties that have already been granted

exemptions to ensure that the owners still occupy the properties and that the properties should therefore continue to be exempt.

**DEP Response:** DEP agreed and stated, “DEP is in the process of reviewing, documenting and, where appropriate, changing the Exemptions Unit’s existing operating procedures.”

21. Ensure that any Customer Registration Forms that are submitted for a change of ownership are also forwarded to the Exemptions Unit for review so that it can determine whether any of the new owners indicated on the forms are eligible for exemption.

**DEP Response:** DEP agreed and stated, “The Exemptions Unit currently receives a weekly listing of Customer Registration Forms. The list is reviewed and any changes affecting exempt accounts are processed immediately.”

### **Incorrect CIS Data**

When we sorted the spreadsheet containing billing data for the 765,431 accounts by borough, we found 64 accounts in which many fields lacked information. However, when we generated the same fields from BAPPS, the information was available in those fields—albeit not always logical. Specifically, there were 59 accounts with the same block and lot number of “99999/9999.” In addition, 26 of these accounts either did not have precise service addresses or the service address fields contained unknown terms. By researching DOF’s property information systems, we were able to find actual block and lot numbers for 20 of the 59 accounts.

During the exit conference, DEP officials concurred that they need to “clean up” some of their accounts and are taking steps to do so. Subsequently, we received a formal response from DEP officials regarding two of the cited accounts that each had significant accounts receivable balances as of March 2008 due to a lack of payments since at least 1997. DEP found that the address in Queens for one of the accounts (sample #53icd) that had an accounts receivable balance of \$8,484 is “bogus” and the account therefore should no longer be active. DEP stated that the property in Queens of the second account (sample #38 icd) that had an accounts receivable balance of \$38,610 is City-owned and should therefore be exempt from payment of water and sewer charges and not be billed. We reviewed information in BAPPS and verified that DEP updated the customer information and canceled all of the charges for these two accounts, thereby reducing its accounts receivable balance.

### **Recommendations**

DEP should:

22. Investigate the inaccurate data we cite and make the necessary changes in CIS.

**DEP Response:** DEP agreed and stated, “DEP is reviewing each account cited and addressing each instance of incomplete data.”

23. Ensure that information regarding each account, such as block and lot numbers and service addresses, are recorded accurately in CIS so that bills are not sent to the incorrect individuals and its accounts receivable balance is not overstated.

***DEP Response:*** DEP agreed and stated, “Although these 64 accounts are being addressed, this small percentage is a result of DEP diligently performing customer information reconciliations against Department of Finance records and its customer service commitment to maintaining accurate customer account information.”



November 26, 2008

DEPARTMENT OF  
ENVIRONMENTAL  
PROTECTION

59-17 Junction Boulevard  
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**Steven W. Lawitts**  
Acting Commissioner

John Graham  
Deputy Comptroller, Audits, Accountancy & Contracts  
The City of New York  
Office of the Comptroller  
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New York, NY 10007-2341

Joseph F. Singleton, Jr.  
Deputy Commissioner

Bureau of Customer  
Services

Re: **DRAFT REPORT**  
**Audit Report on the Department of**  
**Environmental Protection Controls Over**  
**the Billing of Water and Sewer Charges**  
**of Residential Properties**  
**MH08-069A**

Dear Mr. Graham:

Thank you for the opportunity to comment on the above referenced draft report. We appreciate the diligence of your auditors in performing this audit.

Please see the attached DEP response to the recommendations cited in the report and thanks again for the time your staff spent in conducting this audit.

Yours truly,

Joseph F. Singleton, Jr.  
Deputy Commissioner, Bureau of Customer Services

Attachment \_\_\_\_\_

cc: Steven W. Lawitts, Acting Commissioner  
Mark Ritze, Assistant Commissioner, Management Analysis, Planning & Auditing  
John Lento, Audit Coordinator  
Vincent Mattarella, Director of Program Implementation



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**Response by the New York City Department of Environmental Protection (DEP)  
to Audit Report MH08-069A (Report)**

The Office of the New York City Comptroller (Comptroller) recently conducted an audit of "The Department of Environmental Protection Controls Over the Billing of Water and Sewer Charges Of Residential Properties". The audit was to determine whether DEP and its Bureau of Customer Services (BCS), hereinafter referred to as DEP, "has adequate controls over the billing of water and sewer charges for residential properties to ensure that bills are accurate and that it has properly identified all properties whose accounts should be billed".

The Comptroller concluded that "in general, DEP has adequate controls in place to ensure bills are accurate" and that the "water and sewer billing data was reliable" finding data reliability issues with just 64 accounts, "which represented only .01 percent of the 765,431 accounts associated with residential properties". The Comptroller also cited that for their sampled accounts, DEP:

- a. "correctly calculated the water and sewer charges based on the meter readings indicated in BAPPs and correctly calculated late payment charges"
- b. "used the correct average amount of water use for the calculation of the estimated bills"
- c. "in general, actions recorded in the Customer Notes screens did in fact occur, and all cycles were billed"
- d. "adequately monitors permits issued to plumbers to install meters at properties that never had meters and to replace, add additional, or permanently remove meters"
- e. "also when Customer Registration Forms are submitted, DEP generally updates the owner information in CIS"

In the Report, areas of concern were also cited and recommendations to DEP were made to address such concerns. Overall, in the instances where the Comptroller cited specific examples that warranted further investigation, DEP reviewed each instance and where necessary addressed each anomaly. In instances where DEP agrees with the Comptroller regarding the creation of a tracking system for monitoring purposes, DEP is in the process of deciding on the best possible way to implement such recommendations.

Before addressing the Comptroller's specific recommendations, it is necessary to discuss incorrect or inaccurate statements cited in the Report, address a process identified by the Comptroller in the Report as "required", and discuss other considerations relevant to the Comptroller's findings.

***Incorrect or Inaccurate Statements***

The Comptroller cited that Local Law 53 of 1985 requires that all new construction and substantially renovated properties "be billed based upon actual consumption." This implies any new or substantially renovated property that is not billed based on actual consumption (e.g., estimates, frontage, flat-rate, etc.) is not being billed in accordance with local law. Local Law 53 does not make any reference to water and sewer charges, or the manner in which properties are to be billed.

The Comptroller implied that all properties presently not billed on a metered basis will be billed on a metered basis by July 2009. In actuality, some metered properties will continue to be billed on a frontage or flat-rate basis well beyond this date. The New York City Water Board recently

**Response by the New York City Department of Environmental Protection (DEP)  
to Audit Report MH08-069A (Report)**

adopted a resolution extending the application deadline for the Multi-family Dwelling Conservation Program. It is also anticipated that, by the end of the fiscal year, the Water Board will pass a resolution to continue the frontage rate structure.

***Required Procedure***

The Report cites (on more than one occasion) that DEP is required to inspect meters that have received three or more consecutive estimates with the implication that if a meter does estimate as such and DEP does not investigate, DEP is not adhering to a required procedure. This is not correct.

It is in the best interest of DEP to resolve the issues that cause estimated reads (e.g., broken meters, broken remotes, access issues, etc.) for several reasons including: improving its customer service model with analyses based upon actual consumption and improving the transparency and collection of its revenue.

The Department successfully reduced the percent of estimated water and sewer bills, which fell to 16.3 percent for Fiscal 2008, the lowest in several years. In early 2006, immediate attention was given to the high estimated bill population and, through operational changes introduced in Fiscal 2007, DEP was able to utilize more of the meter reads it obtained and achieve the reduced estimated-bill rate. DEP also initiated a contract known as the Hard-To-Access Contract (HTA) to further reduce the rate by obtaining meter readings from premises that have been difficult to access and whereby the underlying meters have consecutively estimated at least three times. Over the next few years, DEP will bring Automatic Meter Reading (AMR) to its customers, further reducing the percentage of estimated water and sewer bills.

The aforementioned efforts and accomplishments are results of proactive initiatives put forth in the last couple of years to achieve operational improvements and ensure that the mission and goals of the organization are achieved. DEP's addressing meters that have consecutively estimated three or more times is a proactive process by DEP, not required procedure or policy. It is very much a city-wide "work in process" in line with other initiatives; however, every chronically estimating meter cannot be addressed at the same time. Additionally, various factors not in the control of DEP, such as the denial of access to a residential property to fix or repair a meter, need to be considered. As a result, DEP agrees that there are some instances such as those cited by the Comptroller, whereby a meter will continue to estimate. DEP is confident that by focusing on operations, the hiring of the HTA contractor and the implementation of AMR, a significant reduction in the estimated bill percentage will be achieved in the next three years.

DEP encourages customers to call the DEP Contact Center at (718) 595-7000 to request assistance if they have received an estimated bill, especially if the meter has consecutively estimated three or more times. If an inspection is deemed necessary, one will be performed, either by a DEP inspector or hired contractor.

***Other Considerations***

The Comptroller cites areas of concern regarding the monitoring of accounts, including the follow-up of inspections and timely resolution of inspection work orders. As previously noted, various factors not in the control of DEP, such as the denial of access to a residential property to fix or repair a meter, need to be considered. Other factors that cause delays by DEP and or its



**Response by the New York City Department of Environmental Protection (DEP)  
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hired contractors from completing an inspection or its work order processing include (but not limited to):

- The water service pipe or building shut off valve being in poor condition and the owner must have restorative work performed before the meter installation or replacement can occur.
- The meter installation requires an outdoor pit meter which is outside the scope of the current contract.
- The building is vacant or demolished.

The above factors are not the sole response to Comptroller recommendations regarding the monitoring of accounts; however, these factors do contribute to issues cited by the Comptroller. When factors other than access are the cause, further investigation may be needed or an action on the part of the customer required. When property access is the issue, DEP can engage in a letter sending process to gain access whereby the New York City Water Board (NYCWB) can impose a \$50 charge for denying access. This minimal charge sometimes results in a positive customer response, however, more often than not, it doesn't. DEP is in the process of evaluating alternatives to the \$50 denial of access charge and will consider bringing any proposed changes to the Water Board in time for the April 2009 rate setting.

**DEP Responses to Specific Recommendations**

1. Investigate the four accounts that we determined were incorrectly placed on inactive status and that should, therefore, be billed for water and sewer charges. After examination, and if warranted, start billing the accounts and recoup the moneys owed for the unbilled periods.

**Response (Agree)**

The Comptroller contends that the properties in question were "incorrectly placed on inactive status". However, this has yet to be determined, as the investigation of these properties is ongoing due to denial of access issues. If DEP determines that these properties are receiving services for which they are not being billed, the property owners will be billed retroactively in accordance with the New York City Water Board's policy.

2. Create a tracking system that would effectively monitor the inactive accounts. This system should include, but not be limited to: the date the account becomes inactive, the reason the account has become inactive, the history of work orders associated with the account (including the dates that they were issued), and an indication of whether or not the account will permanently remain on inactive status.

**Response (Agree)**

DEP's Office of Information Technology (OIT) has been provided with preliminary business requirements for a tracking system. OIT will review the business requirements and add the system to its application development schedule.

3. Periodically review properties placed on inactive status to ensure that they are legitimately inactive (e.g., by inspecting properties or reviewing DOF and DOB property information systems).

**Response (Agree)**

**Response by the New York City Department of Environmental Protection (DEP)  
to Audit Report MH08-069A (Report)**

DEP periodically reviews our records for potentially unbilled properties and we will continue to do so. We believe that developing a tracking system similar to the system recommended by the Comptroller will allow us to do so more effectively in the future.

4. Investigate the three accounts that we determined should not be exempt from payment of water and sewer charges. After examination, and if warranted, start billing the accounts and recoup the moneys owed for the unbilled periods.

**Response (Agree)**

DEP has investigated the properties in question and, where appropriate, issued retroactive bills in accordance with the New York City Water Board's policy.

5. Ensure that all exempt accounts have files that contain all the required documents (i.e., a notarized Application for Exemption from Water and Sewer Charges, the New York State Certificate of Incorporation, and a letter from DEP granting the exemption) necessary to complete the exemption process.

**Response (Agree)**

DEP has begun a review of its records related to exempt properties to ensure that all required documents are on file. Where appropriate, we will contact customers to obtain required documents and update our files accordingly.

6. Ensure that the necessary changes (i.e., owner name information) are made in CIS for the 14 accounts we cite.

**Response (Agree)**

DEP has researched the accounts in question and, where appropriate, have updated our records accordingly.

7. Appeal to the Water Board to impose penalties against sellers and buyers who fail to inform DEP of a change of ownership.

**Response (Disagree)**

The Water Board is not empowered to impose "penalties" against property owners who fail to inform DEP of a change of ownership. However, the failure of an owner to notify DEP of a change in ownership does not relieve the owner of liability for water and sewer charges.

8. Ensure that meters are installed and placed on a monitor-only status in CIS at all exempt frontage accounts.

**Response (Agree)**

DEP has begun reviewing all exempt frontage accounts and will work with the property owners to ensure that these properties are properly metered.

**Response by the New York City Department of Environmental Protection (DEP)  
to Audit Report MH08-069A (Report)**

9. Appeal to the Water Board to impose an annual flat-fee-rather than imposing a surcharge based on the last annual water charge-for exempt organizations that refuse to have meters installed on their properties.

**Response (Disagree)**

DEP is currently planning a customer outreach effort, not to strip exempt organizations of their exemption status, but rather to inform each organization of the importance of metering and the need for DEP to better monitor consumption citywide.

10. Review the 19 accounts we cite as not having been adequately monitored, and if warranted, immediately take action to update the accounts so they are accurately billed and bills are sent to the correct individuals and service addresses.

**Response (Agree)**

DEP's review of the 19 accounts cited shows that:

- 10 of the accounts were cited for issues that were resolved by DEP before the issuance of the Comptroller's Preliminary Draft report.
- 6 of the accounts were resolved since DEP received the Draft report
- 3 of the accounts are still under investigation, as we are experiencing access problems. All 3 of the accounts have been referred to our Hard to Access contractor.

11. Develop procedures governing the length of time it should take to complete work related to the installation, inspection, repair or replacement of meters or remotes. These procedures should include the steps to be taken for any work that should have been but was not completed due to either the work being canceled temporarily or inspectors being unable to gain access to the properties.

**Response (Agree)**

DEP will re-visit its current processes and where necessary, update or create procedures accordingly.

12. Improve its oversight of accounts to ensure that work related to the installation, repairing, or replacement of meters or remotes is completed in a timely manner and accounts receiving three or more consecutive estimated bills are investigated.

**Response (Agree)**

DEP will consider its findings regarding its response to recommendation #11 and initiate steps to engage its supervisors and/or Quality Assurance staff to monitor the compliance of such procedures. Although not required procedure or policy, DEP will continue to proactively review accounts with three or more consecutive estimated bills.

**Response by the New York City Department of Environmental Protection (DEP)  
to Audit Report MH08-069A (Report)**

13. Consult with Con Edison about the use of the wire connecting the two hand-held devices when obtaining readings from remotes. This wire should be used since it would minimize errors when recording readings that could result in estimated bills.

**Response (Disagree)**

Con Edison tested the use of cables for their hand held computers and probes, but found the cables repeatedly needed repairs and were not dependable. DEP believes the best way to minimize errors when recording readings is to focus our efforts on a transition to AMR technology.

14. Appeal to the Water Board to increase the denial-of-access fee.

**Response (Agree)**

DEP is in the process of evaluating alternatives to the \$50 denial of access charge and will consider bringing any proposed changes to the Water Board in time for the April 2009 rate setting.

15. Investigate the 52 overdue work orders and determine whether: (1) the work has already been performed, and if so, whether the work orders indicate resolutions and are closed and (2) the work still needs to be done, and if so, whether immediate actions should be taken to perform the work.

**Response (Agree)**

DEP has investigated these overdue work orders and has taken appropriate actions where necessary.

16. Create a Tracking System that would effectively monitor the overdue work orders.

**Response (Agree)**

DEP will re-visit its current procedures for monitoring work orders, where necessary enhance its current procedures, and engage its supervisors and/or Quality Assurance staff to monitor the compliance of all procedures.

17. Ensure that a work order is closed and indicates a resolution when DEP has completed the work and performed the work under another work order.

**Response (Agree)**

DEP contends that the vast majority of our work orders are closed out with a proper resolution when work is completed. However, we acknowledge that this is not the case in every instance. We will continue to monitor compliance with our procedures related to work orders and take actions, as appropriate, to ensure they are followed.

18. Establish formal procedures for calculating estimated bills in which the average amount of water use is computed manually rather than automatically in CIS. The procedures should include all of the situations in which bills would be manually estimated and the appropriate methods for their calculations.

**Response (Agree)**

**Response by the New York City Department of Environmental Protection (DEP)  
to Audit Report MH08-069A (Report)**

DEP is in the process of developing standard operating procedures for manually calculating estimated bills. It must be noted, however, that in their sampled accounts, the Comptroller found that DEP "used the correct average amount of water use for the calculation of the estimated bills".

19. Include rebills in arriving at the average amount of water use for the calculation of estimated bills since their inclusion would bring the average closer to actual use.

**Response (Disagree)**

DEP believes this change is unnecessary. Re-bills are purposely excluded from the bill estimation routine since they often cover periods where the property's consumption was significantly higher or lower than current consumption. At the time a re-bill is issued, we require that our billing staff validate the appropriateness of the value that will be used to generate the next estimate and adjust if necessary. Considering a customer's pattern of consumption during a given period and taking certain real-life anomalies into consideration is an important part of the process. We do not believe that automation is an acceptable substitute for human judgment in these cases.

20. Develop and implement written procedures for the Exemption Unit. The procedure should include the steps that the Exemption Unit needs to take to ensure compliance with the rules governing exempt properties in the New York State Law and the City Administrative Code. Among the procedures should be those for handling new organizations requesting exemption from the payment of water and sewer charges; and periodically reviewing the ownership of properties that have already been granted exemptions to ensure that the owners still occupy the properties and that the properties should therefore continue to be exempt.

**Response (Agree)**

DEP is in the process of reviewing, documenting and, where appropriate, changing the Exemptions Unit's existing operating procedures.

21. Ensure that any Customer Registration Forms that are submitted for a change of ownership are also forwarded to the Exemptions Unit for review so that it can determine whether any of the new owners indicated on the forms are eligible for exemption.

**Response (Agree)**

The Exemptions Unit currently receives a weekly listing of Customer Registration Forms. The list is reviewed and any changes affecting exempt accounts are processed immediately.

22. Investigate the inaccurate data we cite and make the necessary changes in CIS.

**Response (Agree)**

DEP is reviewing each account cited and addressing each instance of incomplete data.

23. Ensure that information regarding each account, such as block and lot numbers and service addresses are recorded accurately in CIS so that bills are not sent to the incorrect individuals and its accounts receivable balance is not overstated.

Response by the New York City Department of Environmental Protection (DEP)  
to Audit Report MII08-069A (Report)

Response (Agree)

The Comptroller concluded that "water and sewer billing data was reliable" finding data reliability issues with just 64 accounts, "which represented only .01 percent of the 765,431 accounts associated with residential properties". Although these 64 accounts are being addressed, this small percentage is a result of DEP diligently performing customer information reconciliations against Department of Finance records and its customer service commitment to maintaining accurate customer account information.