

**FINANCIAL IMPACT
REPORT ON ANALYSIS OF THE
CREATION OF A WATER, SEWER
AND STORMWATER OPERATING
AUTHORITY
Issued 05-15-2013**

**City Transferred Ownership Interests to The Harrisburg Authority
(now Capital Region Water) in November 2013. Both Remain
Under a Related Consent Decree with the EPA and DEP.**

**Section No. 5
Exhibit No. 33**

City of Harrisburg

Financial Impact Analysis of Creating a Water, Sewer and Stormwater System Operating Authority

May 15, 2013

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Acronyms and Abbreviations

ACH - Automated Clearing House
AMR - Automated Meter reading
AWTF - Advanced Wastewater Treatment Facility
CIP - Capital Improvement Plan
CMMS - Computerized Maintenance Management System
DCED - Pennsylvania Department of Community and Economic Development
GIS - Geographic Information System
HR – Human Resources
IT - Information Technology
LOA or Authority - Local Operating Authority
OCLD - Original Cost New Less Depreciation
O&M - Operation and Maintenance
PILOTs - Payments in Lieu of Taxes
PBX - Private Branch Exchange
PPUC - Pennsylvania Public Utility Commission
RCN - Replacement Cost New



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RCNLD - Replacement Cost New Less Depreciation

SAN - Storage Area Network

SCADA - Supervisory Control and Data Acquisition

THA – The Harrisburg Authority

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1. INTRODUCTION AND BACKGROUND

1.1 Purpose

The purpose of this report is to document the potential impact of transferring management and operation of the water, sewer, and stormwater utilities to the Harrisburg Authority ("THA") or a new local operating authority ("LOA" or "Authority"). The scope of this work also included the evaluation of alternatives associated with providing billing and customer service functions, assessing the value of City-owned wastewater and stormwater system assets (i.e. the wastewater collection system, pumping stations, stormwater collection system, and associated support facilities) that are proposed to be transferred to the LOA for compensation consideration, and the evaluation of potential revenue alternatives for providing compensation to the City, such as franchise fees, right-of-way fees, and pilot payments.

1.2 Background

On December 15, 2010, the Pennsylvania Department of Community and Economic Development ("DCED") declared the City of Harrisburg a financially distressed municipality. Under the Financially Distressed Municipalities Act, also known as Act 47, the Act provides for the restructuring of debt of financially distressed municipalities; limits the ability of financially distressed municipalities to obtain government funding; authorizes municipalities to participate in Federal debt adjustment actions and bankruptcy actions under certain circumstances; and provides for consolidation or merger of contiguous municipalities to relieve financial distress. The recovery plan for the City was prepared on February 6, 2012.¹

Due to the City's financial condition, it is unlikely that the City or THA can access the capital markets under its current organizational structure, and without such access, it is not possible to implement and finance its sewer capital needs, which currently includes a \$50 million Advanced Wastewater Treatment Facility ("AWTF") improvement project, and yet to be determined stormwater system improvements to meet regulatory requirements. Therefore, the City and THA are proposing to create an authority, consisting of either THA or a newly created LOA, and transferring asset ownership and operations to the authority. This transfer will likely have a financial impact on the City

¹ Recovery Plan for the City of Harrisburg, prepared by David Unkovic, Receiver for the City of Harrisburg, dated February 6, 2012

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due to a reduction in revenues transferred to the City's General Fund for providing support services to the Bureau of Water and Bureau of Sewerage. A description of the water and sewer systems is provided below.

1.3 The Water System

THA owns, and the City operates the water system, which consist of water supply, treatment, and distribution infrastructure. The water system includes one reservoir with a capacity of six billion gallons, several finished water storage reservoirs with a combined capacity of 40 million gallons, and 142 miles of distribution lines. The water system is currently operated and maintained by the City's Bureau of Water under a management agreement between THA and the City. The water system serves approximately 66,500 residents in the City, Borough of Penbrook, Dauphin County, and parts of various outlying municipalities including the Townships of Susquehanna, Swatara, and Lower Paxton.

The City is responsible for billing customers for water service, collecting receipts and revenue of the water system, record keeping, employing and supervising personnel to manage, operate, and maintain the water system, purchasing supplies and equipment in connection to the operation and maintenance ("O&M") of the water system, and making periodic recommendations to the THA concerning the O&M of the water system.

Water rates are set by THA to generate revenues sufficient to allow THA to pay for the City's direct operating expenses and general administrative charges, and THA's administrative expenses and debt obligations.

1.4 The Sewer System

The sewer system is comprised of a combined sanitary and stormwater collection system, a separate sanitary sewer system, a wastewater conveyance system, and an AWTF. The combined and separate sanitary sewer systems are owned by the City. The conveyance system and AWTF are owned by the THA and leased to the City.

The sewer system provides wastewater conveyance and treatment to City customers and suburban communities, consisting of the Boroughs of Penbrook, Paxtang, and Steelton, Townships of Swatara, Susquehanna, and Lower Paxton, the Swatara Township Authority, the Lower Paxton Township Authority, and the Susquehanna Township Authority. City customers account for approximately 60 percent of the

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revenues of the system, and the suburban communities account for approximately the remaining 40 percent. Due to the use of sewer revenues for supporting City General Fund operations, the suburban communities have retained legal counsel to support their claim that the City has overcharged them over the past five years for sewer treatment, and have demanded payment of at least \$5 million. In the meantime, the suburban communities are making only partial payments of their sewer billings, which is causing additional financial stress for the City and the sewer utility operations.

Sewer rates are set by the City in accordance with the Lease Agreement between the City and the THA. The City has the exclusive power and right to charge customers for sewer service and collect sewer revenues.

1.5 The Stormwater System

The stormwater system is comprised of a combined sanitary and stormwater collection system, and a separate stormwater collection system. The stormwater system is owned and operated by the City. There are also governing agreements between the City and THA for discharges to the Paxton Creek, Spring Creek, and the Susquehanna River under a City-held permit.

1.6 The Proposed Authority Structure

Consultants to the Receiver and THA have proposed the creation of an authority, either THA or a newly created LOA with respect to the water, sewer, and stormwater systems. A summary of the structure proposed by the consultants is provided below.

1. **Asset Control.** The Authority will own the water, sewer and stormwater infrastructure, including water treatment, transmission, storage, and distribution assets, sewer collection, conveyance, and treatment assets, and stormwater inlets, collection, and outfalls.
2. **Rate Setting.** The Authority will have the sole authority to establish water and sewer rates and charges necessary for operating, maintaining, and/or improving the water, sewer, and stormwater systems.
3. **Liability Responsibility.** The Authority will assume responsibility for debt of the water and sewer systems and other long-term liabilities of the systems, such as capital

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reinvestment needs related to regulatory requirements and system rehabilitation needs.

4. **Personnel.** Following the transfer of City personnel to the Authority (as described in the Transition Plan), the Authority will direct and control its labor force, subject to applicable labor agreements. The Authority will establish new personnel rules and compensation packages, including a pension plan, subject to applicable labor agreements.
5. **Independent Contracting Authority.** The Authority will have the ability to contract with outside parties to provide services and support.
6. **Operational Control.** The Authority will ultimately control operations (utility operations, billing and collection, customer service, finances, human resources, IT, legal, etc.) related to the water and sewer utilities, either through Authority personnel or arm's length contracting with the City or outside parties.
7. **Agreement to Provide Service.** The Authority will have the ability to enter into agreements with outside parties, including the suburban jurisdictions, to provide commercial and residential water and sewer services.
8. **Access to Capital Markets.** The Authority is expected to obtain an investment grade rating, and then will have the ability to issue debt and will have rights and independent control of the resources of the water and sewer Authority to provide assurances to the bond market that it will make full and timely repayment.
9. **Agreement with the City.** The Authority will have the ability to enter into various on-going and transaction agreements with the City to compensate the City for the purchase of City-owned wastewater and stormwater systems, use of rights-of-way, and fees for governmental services to facilitate a fair and orderly transition.

The transition plan for the Authority as proposed by the consultants to the Receiver and the THA includes the transfer of the following City departments and functions to the Authority:

- Bureau of Water;
- Bureau of Sewerage;
- Utility Billing and Collections; and

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- Other functions to be determined, but may include record keeping, city services department, vehicle maintenance, and legal.

1.7 Report Organization

The remainder of this report is organized to assist the City in answering the following questions:

1. What is the financial impact to the City of the transfer of the Bureau of Water, Bureau of Sewerage, Utility Billing and Collections to the Authority?
2. What support functions will the new Authority need, and what will the cost of such services be?
3. What other functions could the City reasonably and cost effectively provide to the Authority in order to minimize the financial impact to the City?
4. If the City were to sell its wastewater collection and stormwater assets to the authority, what is reasonable compensation for the assets?
5. If the City enters into a right-of-way agreement with the Authority for use of the City's right-of-way, what is reasonable compensation for use of the City's right-of-ways?
6. If the City enters into a pilot payment agreement or franchise fee agreement with the authority, what is a reasonable PILOT payment amount for City services, such as police and fire protection, street cleaning, paving and repair, and other government services?

In addition to this introductory section, this report contains the following additional sections:

- Section 2 – Administration and Operational Review;
- Section 3 – Sewer and Stormwater Collection System Valuation;
- Section 4 – Potential Ongoing Revenue from the Operating Authority; and
- Section 5 – Summary and Conclusions.

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2. ADMINISTRATION AND OPERATIONAL REVIEW

2.1 Administration and Operational Overview

2.1.1 General

The City of Harrisburg provides water and sewer operation and maintenance services to customers of the City and surrounding communities. These services can be organized into two primary areas – the direct technical operations of the utility and the administrative/business functions of the utility. Currently, almost all of the direct operations and services are provided by City employees in the Department of Public Works and Bureaus of Water and Sewerage. The administrative and business functions are performed primarily by employees in the City's Department of Administration, along with some functions and services from the City Engineer and the City Solicitor.

The administration support provided to the Water and Sewer Bureaus include:

- Review and approval of expenditures and obligations of the City, preparing financial reports, and performing internal audit functions (City Controller);
- Collection of revenues, banking and coordination of electronic fund transfers and receipts (Treasurer's office);
- Providing legal support on general matters and union contracts (Solicitor's Office);
- Management of the union grievance process and labor management issues (Department of Administration, Business Administrator);
- Providing fiscal management of all funds, the accounting of assets, the production of financial documents, the management of cash flows and accounts payable, overseeing procurement of materials, supplies, and services, and the management of risk (Department of Administration, Bureau of Financial Management);
- Providing administration of information technology systems, including the network and mainframe computer systems, maintaining water and sewer billing systems, providing technical support and maintenance of personal computers, firewalls, the local area network, and the wide area network, the backup and restoration systems, and administration of the city's telephone system (Department of Administration, Bureau of Information Technology);
- Providing human resources administration and payroll services, including recruitment, hiring, benefits administration, processing biweekly payroll, maintaining

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payroll records, and ensuring compliance with federal and state employment requirements (Department of Administration, Bureau of Human Resources);

- Providing billing and collection services for water and sewer, including collection activities for delinquent utility accounts (Department of Administration, Bureau of Operations and Revenue);
- Administration, maintenance, and repair of fleet in connection with the water and sewer systems (Department of Public Works, Bureau of Vehicle Management); and
- Operation and Maintenance of the stormwater and sewer collection systems, including repairs and maintenance of sewer and storm inlets and operating street sweepers (Department of Public Works, Bureau of Neighborhood Services).

2.1.2 Billing and Customer Service

The City's utility billing, bill collections, and customer service functions are provided by the Department of Administration's Operations and Revenue Bureau staff. The critical business functions related to the billing and collection of charges associated with water, sewer, and refuse service are performed, along with the provision of payment receipt and customer services for the City's approximately 19,000 utility customer accounts.

The Operations and Revenue Bureau is made up of four (4) full-time staff responsible for the following primary tasks:

- Billing for water, sewer, and refuse services;
- Customer service;
- Bill payment receipt;
- Billing system testing; and
- Lien filing.

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Billing for Water, Sewer, and Refuse Services.

The tasks associated with billing tabulation/calculation, printing, and mailing comprise approximately 95 percent of the work performed by the Operations and Revenue Bureau, with water and sewer billings making up approximately 60 percent of that level of effort. The bill tabulation/calculation function is performed by the Director of Operations and Revenue, with interaction with the City's Information and Technology Bureau for rate coding into the City's billing system. The printing and mailing of water and sewer utility bills are performed in-house by a full-time staff member in the City's Mailroom.

Customer Service

The City currently has one full-time staff member handling all customer service functions, with one full-time position currently unfilled. The customer service functions performed include: call center and walk-in-center reception; bill corrections / adjustments; bill delinquency processing; manual meter-reading entries; Section 8 support including housing research, inspections, code system and tax system support; shutoffs and service termination letters.

Bill Payment Receipt

The City currently is able to accept payments for utility bills made by automated clearing house (ACH), checks, cash, credit, or debit. The City has one walk-in payment center in downtown Harrisburg. Payments received at this location transferred to the City's Treasury Department for processing. Residents paying by check are able to use the walk-in center before or after hours.

Billing System Testing

The Operations and Revenue Bureau is also responsible for the testing of the billing system and corresponding bills prior to printing and mailing. The City's Water Bureau sends the meter reading files to the Information and Technology Bureau, where they are uploaded into the billing system. Billing reports are sent to the Director of Operations and Revenue for the purposes of identifying errors or exceptions that require further investigation by the Water Bureau.

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Lien Filing

In the event that an unpaid water bill exceeds \$75 and is 60 days overdue, the account is flagged for shutoff. If the account remains delinquent following shut-off a lien is placed against the corresponding property until the property is sold. Operations and Revenue has one staff member performing lien filing related activities for approximately 50 percent of his total available time.

Level of Service

The City's Operations and Revenue Bureau currently employs four (4) full-time staff that provide all of the billing, payment processing, and customer service functions for the water, sewer, and refuse utility services. These positions include the Director of Operations and Revenue, a Customer Service Representative/Account Specialist, a Paralegal, and a Posting Specialist. A second Customer Service Representative/Account Specialist is budgeted, but currently vacant.

The Director of Operations and Revenue is responsible for all billing, payment collections, and customer service related to the water, sewer, and refuse utilities. Currently, approximately 40 percent of the time spent on billing and customer service activities is devoted to Refuse, while 60 percent is devoted to Water and Sewer.

The Customer Service Representative/Account Specialist is responsible for²:

- Answering telephone calls from customers (approximately 80 per day) and returning all messages left after hours;
- Addressing walk-in customer inquiries (approximately 40 per day);
- Entering manual meter-read information into the billing system;
- Providing billing adjustments and establishing payment plans with customers and entering these into the billing system, as appropriate;
- Printing and mailing service termination (shutoff) letters (approximately 60 per day) and sending a list to the Water Bureau for shutoff;

² The quantities of activities listed were provided by City staff and have not been individually verified by Red Oak/ARCADIS.

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- Performing research to support the City's Section 8 Housing Program (approximately four per day); and
- Initiating the property lien process.

The Paralegal's assignments performed for the Operations and Revenue Bureau consist of managing the lien filing process for the Water and Wastewater utilities (approximately 50 percent) and managing the mercantile licensing processes, including judgments, tax sales, and foreclosures (approximately 50 percent).

The Posting Specialist is responsible for notifying customers of pending water shutoffs by placing door posters, along with a photograph of the poster on the premise door and placards to designate domiciles that have had terminated water service or are unfit for human habitat. For water shut offs, the Posting Specialist will provide updates within the City's billing system for customers where terminated water service placards have been posted. The Water Bureau is then responsible for shutting off the water at the designated locations.

In the current operating environment, there are several issues that impact the delivery of desired service levels relative to customer service and billing for water and sewer services, causing high levels of customer complaints and dissatisfaction. These include:

- *Customer Service staffing levels.* With only one full-time staff member responsible for all customer-facing activities previously mentioned herein, the Customer Service Representative/Account Specialist is overloaded and unable to provide a high level of service to customers. As a result, complaints are high and customer satisfaction is low.
- *Telephone system is outdated.* The current telephone system does not allow customers to monitor or manage their accounts, nor does it allow them to make payments. In addition, it has no ability to track call volume and does not provide call queuing and forces the Customer Service Representative/Account Specialist to remember which call was on hold the longest in order to take the calls on a first in, first taken basis. In addition, providing the customer the opportunity to leave messages after hours establishes a large queue of calls that need to be returned on a daily basis.
- There are large quantities of manual meter-reading entries into the billing system required by the Customer Service Representative/Account Specialist daily, due to the inordinate amount of remote meters that require battery replacement. This has a

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high potential to gradually reduce system revenue as the number of remote meter batteries requiring replacement grows.

- Customer Service business hours are limited due to limited number of staff. Currently, the customer service center is available five days per week from 7:30 am-4:30 pm. Because of this, customers have a limited timeframe to address any issues they may have with their bills or pay their bills in person. As a result, issues may go unresolved longer than desired and customer satisfaction decreases. In addition, it serves to add to the after-hours messages that need to be addressed the next day by the Customer Service Representative/Account Specialist, further increasing the time and availability to answer new calls or address new walk-in customers.
- There is very little automation between the customer service center and meter operations and distribution. The only interaction is currently performed by telephone, causing delays in responding to customer inquiries, terminating service due to non-payment, and performing leak or meter testing. This not only can further decrease customer satisfaction levels, but also has the potential to allow customers to receive free service until termination can be performed.
- Time between bill preparation and mailing is approximately six days, due to the limited number of staff (one person at the City) responsible for printing bills and return envelopes/postage. This directly increases the amount of time between sale of product/service and corresponding revenue collection.

2.1.3 Information Technology Bureau

The City's Bureau of Information Technology (IT) is part of the Department of Administration. IT is responsible for maintaining City telecommunications, mainframe-based applications, and certain server-based applications. The department is comprised of nine staff members, including the Director, a network administrator, a helpdesk analyst, computer operators, and three mainframe programmers.

Mainframe Computing Environment

One of the primary functions of the IT Bureau is to maintain a suite of mainframe-based applications that support a wide range of mission critical City functions:

- Police/METRO – used to create Police Reports (time, arrests, criminal histories, warrants, citations, parking tickets). The Police Bureau/METRO is the largest user of the mainframe system. Thirty outside agencies use METRO to some extent;

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- Utility Billing - used for customer service and billing;
- Treasury – used to process all payments made to the City. The Treasury application is integrated with an OPEX Scanner machine which is used to create check images. Mavro software is used to match check vs. bill and to produce a Check 21 File that is e-filed with Citizens Bank;
- Personnel System – Timesheets, Leave, Paychecks (hosted offsite), Grievances, Job titles, Payroll action forms/rate of pay;
- Tax Billing;
- Mercantile Licensing;
- Building Codes;
- Liens; and
- Property Database.

The mainframe is an IBM Z-Series that was purchased in approximately 2007. Disk storage is provided by a Storage Area Network (SAN). The existing mainframe applications are very stable and the utility billing system seems to be meeting the current needs of the City. The current main-frame based applications are custom developed; three City resources maintain the applications. Two of these resources have worked with the applications for over 15 years and have significant knowledge about the data and applications.

In the future, replacing the institutional knowledge possessed by the current programming staff may be difficult. Finding additional resources to maintain the mainframe applications may prove difficult and costly. Other cities faced with a similar circumstance have chosen to migrate from custom-mainframe based applications to commercial packages running on n-tier server architectures. The replacement is usually driven by limitations of the systems to meet current business needs, difficulty in working with business data, and/or a desire to move to a database server technology.

Telephony

The IT Bureau is also responsible for telephony services throughout the whole City. The existing system is based on an outdated Nortel Private Branch Exchange (PBX). There is not a maintenance contract in place for the system and parts are becoming difficult to obtain. The system has reached the end of its useful life and will need to be replaced in the near future.

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Server-Based Applications

The IT Bureau also maintains a Windows server environment that hosts a number of applications:

- Financial Management – SunGuard;
- Document Imaging;
- Mavro – remittance processing; and
- Email.

Other City IT Systems

In addition to the service provided by the IT Bureau, there are a number of important systems that are maintained by the water and sewer operation staff with minimal support from IT.

- Supervisory Control and Data Acquisition (SCADA) – used to operate the water and wastewater treatment plants and related infrastructure;
- Computerized Maintenance Management System (CMMS) – a basic computerized work order system with preventive maintenance schedule is used and maintained by the Water Bureau. Bureau of IT is not involved with this system; and
- Meter Reading – use a drive-by style automated meter reading (AMR) system produced by Sensus. Meter read data are downloaded to a PC located at the water treatment plant, then transferred using a flash drive to move the data to a computer that can upload it to the mainframe for processing.

2.2 Impacts to the City of the Creation of the Operating Authority

2.2.1 General Service Impacts

If the new operating authority is created, the inability to recover administrative costs that are currently allocated to, and recovered from, the Water and Sewer Bureaus will be a negative financial impact on the City. This financial impact is identified in the pursuing sections of this report. From a support services functional standpoint, the elimination of the Water and Sewer Bureaus will free up time and capacity for administrative staff to serve other existing City departments. In other words, if the number of administrative staff remained the same and the total number of people supported by the administrative department decreases substantially, then the capacity

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of City staff to provide a higher level of service to its staff (i.e., internal customers) would be increased. This applies to City staff residing in the General Government, and Departments of Administration and Public Works.

Based on interviews conducted with City management and staff, it is apparent that the number of administrative staff within the City relative to the functions being provided is very low. Administrative staff is responsible for multiple duties, and their time is stretched thin. Elimination of the efforts that are currently being performed to provide support services to the Water and Sewerage Bureaus would result in additional capacity to more fully support the remaining City functions. Administrative staff time previously spread across multiple departments, including the Water and Sewer Bureaus, could be redirected to expand or enhance the support services provided to the remaining Bureaus and departments. The enhanced level of service that could now be afforded to non-water and sewer functions could have a positive impact on the citizens of the City.

2.2.2 Loss of Ability to Share Maintenance Staff

Personnel located in the Bureaus of Water and Sewer occasionally support maintenance activities of the Department of Public Works, including snow plowing during storm events, cleanup during flood events, and collection system sewer repairs. For example, during the September 2011 flood event, 670 hours of manpower were used from the Water and Sewerage Bureau to assist the Department of Public Works. In lieu of certain payments by the new Authority to the City, an agreement from the Authority to continue to assist the Department of Public Works during extreme weather events or other special circumstances would have value to the City.

2.2.3 Potential Financial Impacts Due to Loss of Indirect Cost Sharing

The City's Central Services Cost Allocation Plan for the year ending December 31, 2010 that was prepared by Maximus, Inc. was reviewed to determine the allocation of costs to the Water and Sewerage Bureaus, and to assess the financial impact to the City's General Fund of the transfer of these functions to an operating authority.

Based on the analysis of General Fund costs allocated to the Water and Sewerage Bureaus, there is the potential for the City to lose the ability to recover approximately \$1.7 million in indirect costs from the Water and Sewer Bureaus. A summary of the

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General Fund costs that allocated to the Water and Sewer Bureaus is provided in Table 2-1.³

Table 2-1: Summary of General Fund Costs Allocated to the Water and Sewer Bureaus

Department	Bureau		Total
	Water	Sewer	
Building Depreciation	\$ -	\$ -	\$ -
Equipment Depreciation	688	688	1,376
Retirement	806	929	1,735
Insurance	-	-	-
General Expenses	13,877	15,519	29,396
City Council	8,380	-	8,380
Mayor	21,042	31,699	52,741
City Controller	20,848	20,708	41,556
City Treasurer	248,429	283,422	531,851
City Solicitor	-	-	-
Business Administrator	19,840	23,688	43,528
Financial Management	44,690	44,418	89,108
Information Technology	49,556	42,675	92,231
Human Resources	28,661	33,649	62,310
Operations & Revenue	342,658	303,004	645,662
Vehicle Management	28,527	33,769	62,296
Total	\$ 828,002	\$ 834,168	\$ 1,662,170

The allocations of costs shown in Table 2-1 were developed by Maximus, Inc. and were not independently verified by ARCADIS. Actual costs for certain items may be greater than reported in this table based on changed circumstances or different estimates or methods employed. Any differences in allocated cost utilized in this report are noted along with associated rationale for the change.

These cost allocations were developed by Maximus by dividing the cost associated with each function by several different allocation factors to determine a unit cost allocation factor. The unit cost allocation factors were then multiplied by the number of units associated with the Water and Sewer Bureau. A summary of the allocation

³ Central Services Indirect Cost Plan for the City of Harrisburg, prepared by Maximus, for the year ending December 31, 2010.

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factors, unit costs, and number of units associated with the Water and Sewer Bureaus is provided in Tables 2-2 and 2-3.

Table 2-2: Cost Allocation Factors, Unit Costs, and Water Allocation Units

Allocation Factors	Cost per Allocation Unit	Units
Number of Telephone Units By Department	\$177.0000	12.00
Retirement Salaries & Wages Paid By Department/Bureau	\$0.0004	2,837,846.00
Social Security Expenses by Department	\$0.0378	130,148.00
Salaries and Wages Paid By Department/Bureau	\$0.0036	1,624,979.00
Number of Telephone Units By Department	\$203.0000	6.00
Full-Time Equivalent Employees By Department/Bureau	\$394.8402	219.66
Number of Resolutions/Ordinances Processed By Department/Bureau	\$8,380.0000	1.00
Total Accounting Transactions Processed By Department/Bureau	\$4.4781	4,656.00
Total Revenue Transactions Processed By Department/Bureau	\$0.6404	378,994.00
Total AP and Payroll Transactions Processed By Department/Bureau	\$0.6085	2,441.00
Total Expenditures By Department/Bureau	\$0.0003	9,758,311.00
Total Accounting and Payroll Transactions By Department/Bureau	\$1.7156	10,944.00
Number of Budget Line Items By Department/Bureau	\$109.7033	145.00
Total Number of Purchase Orders Processed By Department/Bureau	\$40.3505	86.00
Total Contracts Monitored By Department/Bureau	\$1,489.0000	2.00
Number of Utility Accounts Billed (Utility System)	\$0.0447	456,308.00
Number of Computers By Department/Bureau	\$1,864.5833	12.00
Mainframe Usage By Department/Bureau	\$1,596.0000	0.25

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2010 Utility Billings \$ Value (Water, Sewer & Sanitation)	\$0.0132	17,159,683.00
2010 Tax & Utility Services Billed By Category	\$0.0571	456,308.00
2010 Utility Services Billed By Category- Weight Sanitation @ 5%	\$0.1754	456,308.00
Duplicating Charges By Department	\$5.3776	829.00
Postage Charges By Department	\$0.9085	317.00
Fleet Maintenance Costs By Department/Bureau	\$0.3799	75,101.00

Table 2-3: Cost Allocation Factors, Unit Costs, and Sewer Allocation Units

Allocation Basis	Cost per Allocation Unit	Units
Number of Telephone Units By Department	\$177.0000	12.00
Retirement Salaries & Wages Paid By Department/Bureau	\$0.0004	3,267,266.00
Social Security Expenses by Department	\$0.0378	142,489.00
Salaries and Wages Paid By Department/Bureau	\$0.0036	1,860,008.00
Number of Telephone Units By Department	\$203.0000	6.00
Full-Time Equivalent Employees By Department/Bureau	\$420.5047	257.74
Number of Resolutions/Ordinances Processed By Department/Bureau	N/A	0.00
Total Accounting Transactions Processed By Department/Bureau	\$4.4776	4,625.00
Total Revenue Transactions Processed By Department/Bureau	\$0.6456	430,242.00
Total AP and Payroll Transactions Processed By Department/Bureau	\$0.5632	3,434.00
Total Expenditures By Department/Bureau	\$0.0003	15,295,610.00
Total Accounting and Payroll Transactions By Department/Bureau	\$1.7164	11,166.00
Number of Budget Line Items By Department/Bureau	\$109.7309	101.00

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Total Number of Purchase Orders Processed By Department/Bureau	\$51.2150	116.00
Total Contracts Monitored By Department/Bureau	\$1,489.3333	3.00
Number of Utility Accounts Billed (Utility System)	\$0.0447	332,188.00
Number of Computers By Department/Bureau	\$1,864.6364	11.00
Mainframe Usage By Department/Bureau	\$1,600.0000	0.06
2010 Utility Billings \$ Value (Water, Sewer & Sanitation)	\$0.0132	16,619,625.00
2010 Tax & Utility Services Billed By Category	\$0.0571	332,188.00
2010 Utility Services Billed By Category-Weight Sanitation @ 5%	\$0.1754	332,188.00
Duplicating Charges By Department	N/A	0.00
Postage Charges By Department	\$0.9096	365.00
Fleet Maintenance Costs By Department/Bureau	\$0.6302	88,137.00

While the City stands to lose the ability to recover approximately \$1.7 million in indirect costs from the Water and Sewerage Bureaus, the potential transfer of the Water and Sewerage Bureaus to a new authority would allow the City to transfer a few administrative staff positions to the new authority, and also avoid or reduce a number of upcoming costs associated with needed technology upgrades. These are discussed in the following subsections of the report.

2.2.4 Potential City Organizational Impacts

Once created, the operating authority will require similar support / administrative functions as currently provided by the City; presenting an opportunity for the City to continue to provide support services to the operating authority. In order to assess this opportunity, it is important to evaluate the potential organizational needs of the Authority and the impacts to the City's current organizational structure. This assessment is summarized below.

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2.2.4.1 Potential Operating Authority Organization

One possible option for the structure of the new operating authority would include five divisions. These divisions would encompass all of the services currently provided by the City of Harrisburg employees, as well as the roles currently held by the staff of THA. These divisions would include:

- Administrative Services (including Executive Office);
- Business and Customer Services;
- Technical Support Services;
- Operations; and
- Maintenance.

Administrative Services Division (Executive Office)

It is anticipated that the Board of the Authority will interview for, and retain a utility director/general manager. The duties of the Director / General Manager would include responsibility and leadership for the senior management team, among other duties. The senior management team may be composed of an Assistant Director or Division Director for each of the other service areas/divisions. The Executive Director would also continue role/duties related to operating authority governance. Development of a communication plan related to governance and operations of the authority would follow and would include the senior management team.

The Director / General Manager would likely be supported by a human resources (HR) employee, which would provide HR functions similar to the function currently being provided by City Administration to the Water and Sewer Bureaus. The organization would also likely need legal and regulatory support, particularly in the area of union grievance process, addressing labor management issues, and regulatory/consent order issues. This legal and regulatory support could either be filled with an in-house employee, a City-contracted employee, or by contracting with an outside party. In addition, the new organization may also need a public relations specialist responsible for community and stakeholder outreach. This role could be partially assumed by the Director / General Manager or other senior managers of the Authority, or the Authority could hire a public relations specialist or contract for this service.

A summary of the potential administration service division organization for a new Authority could include the following positions:

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- Executive management;
- HR/staffing and personnel;
- Legal and regulatory (Potential Outsource or Contract); and
- Public relations and community/stakeholder outreach (Potential Outsource or Contract).

The transfer of all or a portion of legal and regulatory responsibilities from the City to the Authority is one significant advantage of the formation of the new operating authority.

Business and Customer Services Division

The new Authority would need to fill business and customer service functions. This would include providing fiscal management of all funds, the accounting of assets, the production of financial documents, the management of cash flows and accounts payable, overseeing procurement of materials, supplies, and services, and the management of risk. These functions are currently being provided to the Water and Sewerage Bureaus by the Department of Administration, Bureau of Financial Management. It is anticipated that most all of these functions would need to reside in the new Authority in order to function properly and independently. To afford proper checks and balances and fiduciary controls, the duties would need to be split across at least one financial manager and an accountant, but ideally there would be two accountants. A manager for billing and customer account/customer service functions, including running a call center, handling the billing cycle/process would be needed. As part of the billing function, staff that perform meter readings would also be needed. Meter maintenance would likely be conducted by the Maintenance Division. The potential positions associated with this function include the following:

- Financial Manager;
- Accountants (2);
- Billing/Customer Services Manager; and
- Meter readers.

Technical Support Services Division

The new Authority would likely need a technical support services division. This division would provide engineering/technical support, planning, pre-treatment and regulatory, information management/technology, SCADA and other instrumentation, laboratory, and health & safety. The intent of this division would be to provide authority-wide

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support in all of the listed areas. Some of this work is already done from within the Water and Sewer bureaus; some is provided by City Department of Administration. For example, the pre-treatment coordinator position and both of the laboratory technicians that currently work in the Sewer Bureau could transfer over directly and fill roles on the Authority staff. Further, there are currently two positions that are shared across the Water and Sewer Bureau – a planner and a computer programmer. These two positions could move over to the Authority as full time equivalent employees and continue to provide service to both water and sewer efforts. Note, however, that one-third of the planner's time is currently shared with another City department.

Operations Division

It is anticipated that the entire staffing organization of the Water and Sewerage Bureaus would be transferred to the Authority. This function involves operation and maintenance of the water distribution and treatment system, and wastewater conveyance and treatment. Currently, the City's wastewater and stormwater collection systems are operated and maintained by the Department of Public Works, Bureau of Neighborhood Services. If the Authority takes over ownership and operation of the collection systems, then additional staffing and positions will likely be needed. This is a function that could potentially be filled by either contracting with the City or transferring staff from the Department of Public Works to the Authority. However, due to the low number of staff in Public Works in relation to duties and responsibilities, it is unlikely that there would be any underutilized City staff in this area that could be transferred to the Authority to fill the Authority's staffing needs in this area. Therefore, there is a potential that the transfer of operations to an authority could result in some job creation. In addition, City staff that are currently over-leveraged would be able to focus efforts on the remaining city functions, and likely be able to provide better service.

Maintenance Division

The Authority would likely need to establish a maintenance division responsible for maintaining the water, wastewater, and stormwater systems, vehicles and other equipment. Most of these functions are currently being provided by the Water and Sewerage Bureau staff. However, since fleet and collection system maintenance are handled by the Department of Public Works, additional functional support would be required by the new Authority. As discussed above under the Operations Division, collection system maintenance could potentially be filled by either contracting with the City or transferring staff from the Department of Public Works to the Authority to support this function (if any under-utilized staff are identified following the transaction).

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A summary of the potential transfer of staffing from the City's Water and Sewerage Bureaus to the new Authority is provided in Appendix A. It was assumed that all City staff located in the Water and Sewer Bureau would be transferred to the new Authority.

2.2.5 Potential Financial Impacts Due to Technology Upgrades

Custom developed mainframe applications can become difficult and costly to maintain if the application programming logic is not well documented and if there is not a process to build in-house knowledge of the application. Moreover, mainframe applications can be functionally limited and data access is often a problem for non-programmers. While the current billing system appears to meet the needs of the City, there is a high probability that this system will need to be replaced at some point in the foreseeable future. Billing system replacement for a City the size of Harrisburg can cost from \$500,000 to in excess of \$2 million, dependent on the system functionality. Additionally, billing system projects are inherently risky to the organization as there is the possibility of glitches that can impact revenue and cause customer service problems. The transfer of water and sewer operations to an authority would prevent the City from needing to incur these costs and risks.

The current mainframe computing environment is seven years old and is reaching the end of its useful life. A replacement computing infrastructure will likely be required within the next one to two years. Removal of the utility billing applications from the mainframe would lower the overall capacity required of the new hardware, thus lowering the overall cost. Note that this cost would be even further reduced if the Police/METRO application was to be replaced.

The existing telephone system has reached the end of its useful life and needs to be replaced. This replacement will be required regardless of the decision to transfer water and sewer operations. However, removing the water and sewer users from the City telephony system would reduce the cost of the phone system replacement by reducing the number of end-points and sites that would require telephony service. A preliminary telephony system design would be required to quantify the cost reduction associated with the reduced number of users.

2.2.6 Potential Financial Impact of Benefits Payouts

The transfer of Water and Sewerage Bureau staff, and potentially other administrative and public works staff, would likely result in additional financial impacts associated with benefits payout. Based on interviews held with the City in January 2013 and

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subsequent information provided by the City, there is a potential that the City would need to payout accrued vacation, sick time, and personal time, and for those eligible for retirement, paid up life insurance of \$5,000 per employee. These benefits represent a significant potential financial impact to the City upon the termination of employees associated with the Water and Sewerage Bureaus.⁴ A summary of these benefits is provided below.

Union employees can carry over up to 45 days of vacation into the next calendar year, and when an employee separates from the service of the employer for any reason, the employee is entitled to be compensated in lump sum for the unused portion of accrued vacation hours. Employees also accrue three (3) personal leave work days per year, and are paid in lump sum for unused work days when an employee separates from the service of the employer. Employees also accrue up to twelve (12) paid sick leave days per year, and unused sick days accumulate with no maximum accrual. In the event that an employee with at least ten (10) years of service leaves the employment with the City for any reason, the employee is compensated for 50 percent of all sick leave that was accumulated up to a maximum of 120 days. Employees with at least five years of service are compensated for 25 percent of the sick leave that was accumulated. In addition, the City is required to provide a paid up \$5,000 life insurance policy for all non-uniformed employees upon retirement.⁵

Based on the information provided by the City, the amount of potential benefits payout for Water and Sewerage Bureau employees totals approximately \$898,500 for accrued vacation, sick time, and personal time, and \$280,000 for the retiree paid in life insurance policies. Additionally, the amount of potential benefits payout for non-water and sewer bureau staff that may transfer to the Authority totals \$29,100 (for the Customer Service Representative/Account Specialist). It is important to note that it is anticipated that any benefits payout for water and sewer bureau staff would likely be paid from water and sewer funds (cash reserves or user charge revenues). However, payouts to non-water and sewer bureau staff would likely come from the City's General Fund. The potential financial impacts to the City regarding benefits payout will be based on labor negotiations and the transfer agreement.

⁴ This report does not address the potential impact on retirement and post-employment retirement and health care benefit payments and liabilities, as this was beyond the scope of this study. It is our understanding that this issue is being evaluated by the City's actuary.

⁵ 2006-2014 First & Second Amendments to the Basic Labor Agreement Between Local 521 American Federation of State, County & Municipal Employees, District Council 90, and the City of Harrisburg.

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2.3 Potential for Shared Services - Alternatives and Analysis

2.3.1 Fleet Maintenance

The Bureau of Vehicle Management is responsible for the administration, maintenance, and repair of the City's vehicular equipment fleet. The fleet consists of over 425 vehicles and pieces of equipment, including 42 water and 24 sewer fleet vehicles, and the Bureau has a budget of approximately \$2.56 million per year (2013 budget). Fleet maintenance is a function that the City could potentially provide the new Authority, since the City currently has the facilities and staffing to support vehicle maintenance. If the new Authority were to contract fleet maintenance to the City, it could potentially reduce the financial impact to the City by an estimated \$237,000 per year.⁶

2.3.2 Customer Service and Billing

Based on the information obtained from the City, along with discussions with Operations and Revenue Bureau staff regarding customer service and billing issues earlier identified, there are potential benefits to the City to have its customer service and billing functions (along with some of the associated personnel) relative to its water and sewer services transferred to the Operating Authority. The suggested staff functions that could be transferred are presented in Table 2-4

Table 2-4: Potential Operations and Revenue Bureau Positions Transferrable to the Authority

Bureau	Position	Functions Related to Water/Sewer Bureaus	Functions Unrelated to Water/Sewer Bureaus	Percent of Functions Transferrable to THA/LOA
Operations and Revenue	Director of Operations and Revenue	<ul style="list-style-type: none"> • Billing • Payment collections • Customer service 	Similar services provided for Refuse	60-75%
Operations and	Customer Service	<ul style="list-style-type: none"> • Answering telephone • Addressing walk-in customer 	Performing research to support the City's	90-95%

⁶Based on annual fleet spend of \$3,700 per year per vehicle. Per vehicle spend based on average annual spend per fleet vehicle from several other comparable utilities.

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Revenue	Rep/Account Specialist(s)	<ul style="list-style-type: none"> inquiries Entering manual meter-read information into the billing system Providing billing adjustments and establishing payment plans Printing and mailing service termination (shutoff) letters Initiating the property lien process 	Section 8 Housing Program	
Operations and Revenue	Paralegal	Managing the lien filing process for Water/Sewer	Managing the mercantile licensing processes	50-60%
Operations and Revenue	Posting Specialist	Placing door posters and placards to designate domiciles that have had terminated water service.	Placing door posters and placards to designate domiciles that are unfit for human habitat.	80-100%
Operations and Revenue	Mailer	Printing and mailing water and sewer bills, return envelopes, and assigning postage	Printing and mailing refuse bills, return envelopes, and assigning postage	50-75%

As presented in Table 2-4, and substantiated in the indirect cost study performed for the City in 2010, the majority of the functions performed by the Operations and Revenue staff are performed for the Water and Sewerage Bureaus. However, there are certain functions that relate to Refuse billing and collections, along with services provided to other City Departments relative to Section 8 Housing assistance, mercantile licensing, and designation of properties unfit for habitat, that are performed by the same staff within the Operations and Revenue Bureau. Based on the Central Services Indirect Cost Plan, these other functions amount to approximately six percent (\$43,100) of the \$688,900 FY 2013 Operations and Revenue Bureau budget.

It is recommended that the Customer Service Representative/Account Specialist role be transferred to the new Authority due to the current level of responsibility associated with the Water and Sewerage Bureaus. This would ensure continuity of processes and procedures, along with maintenance of existing customer service knowledge base. The

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estimated 5-10 percent of daily job functionality dealing with the City's Section 8 Housing Program research could be transitioned to the Paralegal, as he currently has access to similar information and systems. In addition, the low call volume associated with refuse inquiries and other customer calls would not seem to require the hiring of an additional Customer Service Representative/Account Specialist. `

The anticipated budgeted savings to the City associated with this transfer of the Customer Service Representative/Account Specialist to the Authority is estimated to be \$46,000. This savings would be offset by the indirect costs that would no longer be transferred to the General Fund from the Water and Sewerage Bureaus for customer services provided. In addition, by transferring the Customer Service Representative/Account Specialist function to the Authority, the City could avoid the near-future cost of the need to hire one or more additional Customer Service Representatives/Account Specialists that are desperately needed to increase the current level of customer service provided to the City's water and sewer customers, along with the corresponding level of customer satisfaction.

It is recommended that all other positions associated with the Operations and Revenue Bureau remain with the City based on the amount and nature of activity performed by the other functions within Operations and Revenue. Once the new Authority is formed, the functions of the Operations and Revenue Bureau could potentially be provided to the Authority. Any City charges to the Authority for these functions could be established by a service agreement and charged similar to the indirect costs that the Water and Sewer Bureaus are currently allocated. If these positions are transferred to the Authority, the City would be forced to hire additional staff to perform the functions remaining that are outside the realm of the Water and Sewer Bureaus (mercantile licensing, Section 8 Housing research, etc.), resulting in increased overall cost to the City.

2.3.3 Information Technology Bureau

In general, there are few opportunities for the City's IT Bureau to provide services to a new Authority. From an operational standpoint, it is anticipated that the Authority will likely want to maintain its own financial and HR systems so that there is a clean separation from the City's record keeping. Given the state of the City's telephony system, the Authority will likely also want to operate its own telecommunications system.

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In addition, over the long-term, the Authority will likely need to maintain their own billing system in order to maintain a favorable credit rating, and also to have direct control over the very critical customer service functions. However, in the near term, it may be possible for the City to provide bill processing services to the Authority. The switchover to a new billing system can take upwards of 18-24 months, so the City may need to provide billing services during the transition period. Also, the City IT staff would likely need to support the transition effort, since the conversion of customer and billing data is a critical consideration in a billing system switch. Billing for refuse pickup fee should continue to be billed on the water and sewer bill. If the Authority assumes responsibility of billing operations, the City should seek to have them bill for refuse pickup on their behalf.

Transfer of the current City IT staff to the Authority is not anticipated to be feasible because they will still be required to maintain the other City systems. Many of the current staff are focused on programming and operating the existing mainframe information system and they may need to acquire additional skills to be able to work with other applications and technologies.

The City does not currently have a functional Geographic Information System (GIS), as noted in the Recovery Plan for the City of Harrisburg. A GIS is a critical information system for tracking and maintaining utility infrastructure asset information and the Authority will likely need to undertake the creation of a robust GIS. However, the City should participate in the Authority's GIS development program and could seek an arrangement where the Authority hosts the GIS and grants the City usage rights to the system. Other Bureaus can benefit from access to geographic information, such as Public Works, Building and Housing, Police, and Fire. It is common for utility departments to take the lead role in developing a municipal GIS since they have important needs for tracking buried infrastructure. This is an example of how the new Authority could compensate the City in lieu of potential cash payments.

2.4 Potential Financial Impacts to the City of Creating the Operating Authority

A summary of the potential financial impacts to the City of the creation of an operating authority and the transfer of the Water and Sewer Bureaus is summarized below:

Table 2-5: Potential Financial Impact to the City

Loss of Indirect Cost Sharing	- \$1,662,000	Annual
Transfer of the Customer Service	+ 46,000	Annual

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Representative/Account Specialist to the New Authority		
Potential City Contract with the New Authority for Providing Vehicle Fleet Maintenance	+ 237,000	Annual
Potential Benefits Payout from the Transfer of Administrative Staff to the Authority	- 29,100	One time
Potential Benefits Payout from the Transfer of Water and Sewer Staff to the Authority	- 1,178,500	One time
Net Total Impact	-\$2,586,600	

The total financial impact over 10 years is estimated at \$15 million. This net total negative financial impact to the City could potentially be off-set by the City receiving compensation for the value of sewer and stormwater assets transferred to the new authority, and the receipt of recurring payments from the new authority in the form of franchise fees, right-of-way fees, and/or PILOT payments. These potential compensation alternatives are discussed in the next two sections of this report.

3. SEWER AND STORMWATER COLLECTION SYSTEM VALUATION

3.1 General

This section of the report summarizes the results of the valuation of the City's sewer and stormwater collection system assets. The date of the valuation is the date of this report. The purpose of the valuation was to estimate the potential value of the system assets to support negotiations regarding compensation for the assets that may be transferred to THA or an operating authority.

The assets that were valued include approximately 250,756 feet (47.5 miles) of sewer pipelines, 151,808 feet (28.8 miles) of stormwater pipelines, and 457,320 feet (86.6 miles) of combined sewer and stormwater pipelines, four pump stations, manholes, catch basins, and stormwater intakes. The design capacities of the four pump stations are summarized in Table 3-1. Approximately 80 percent of the City's collection system was installed before 1940. According to engineering reports, the majority of this system is in relatively good condition, though the combined sewer pipes

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in the downtown area have experienced increased rates of deterioration.⁷ The collection system consists of brick sewers in excess of 100 years old, as well as PVC and reinforced concrete pipe. The combined sewer system is the focus of potential regulatory action against the City, and will likely require significant future capital investment to address. There are approximately 3,500 storm water inlets associated with the stormwater collection system. These facilities range from brick inlets to pre-cast concrete inlets.⁸

Table 3-1: Pump Station Design Capacities

Pump Station	Design Capacity		Actual Flow (2010)	
	Average (mgd)	Peak (mgd)	Average (mgd)	Peak (mgd)
Front Street	21.6	43.2	14.5	29.6
Spring Street	10	28.9	5.7	10.7
City Island - North	-	0.432	0.006	0.014
City Island - South	-	0.432		

Source: Municipal Wasteload Management Report for 2010, March 2011, HRG, Inc.

An estimate of the value of the sewer and stormwater collection system was prepared based on asset information (type, quantity, age) provided by the City. This information consisted primarily of the fixed asset records that were provided by the City. While ARCADIS reviewed this data for reasonableness, we did not independently assess or test the accuracy of such data, and relied on this data in the formulation of our finding and conclusions of value. To the extent that the information provided by the City is not accurate, the conclusions and recommendations may vary and are subject to change. Any prior City compensation for the collection system assets, additional information pertaining to the assets, or changed conditions occurring or becoming known after the date of this report could materially change the conclusions regarding asset value and compensation.

3.2 Valuation Approach

The approach used in valuing the City's sewer and stormwater collection system was the Asset Approach. This approach is commonly utilized to value utility assets, and is widely accepted by courts, government agencies, and businesses. Under the asset approach, both the replacement cost new less depreciation ("RCNLD") and the original cost new less depreciation ("OCLD") methods are considered. Under the RCNLD

⁷ Municipal Wasteload Management Report for 2010, March 2011, HRG, Inc.

⁸ Sewage Collection System Consulting Engineers' 2010 Annual Report, prepared by HRG, Inc., October 28, 2011.

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method, the replacement cost new of the assets is estimated and then deductions are made for the loss in value caused by physical deterioration, functional obsolescence, and economic obsolescence. The logic behind this method is the principle of substitution; that is, a prudent buyer will not pay more for a property than the cost of acquiring a substitute property of equivalent utility.⁹

Under the OCLD method, the original cost of the assets is estimated and then deductions are made for loss in value due to deterioration and obsolescence. In Pennsylvania, for investor-owned utilities, the rate base value (i.e., the value of utility property used in determining the regulatory allowable rate of return) is generally based on an OCLD estimate in cases before the Pennsylvania Public Utility Commission ("PPUC").¹⁰ While neither the City nor THA is regulated by the PPUC, the approach used by PPUC in determining rate base value is relevant to the valuation of City assets because the provisions of PPUC provide regulated utilities the opportunity to earn a fair and reasonable return on assets, but prevents monopolistic profits. Likewise, the valuation of the City's collection system assets should consider the regulatory constraints associated with a natural monopoly. Therefore, for consistency with the PPUC method of determining rate base value, the OCLD method was considered along with the RCNLD method in estimating the value of the City's collection system assets. In general, the asset approach for valuing the sewer and stormwater collection system assets involved utilizing the original cost information provided by the City and adjusting the cost to current costs (2013 dollars) by applying cost indices to estimate the replacement cost of the assets, and applying depreciation factors to reflect the estimated age and condition of the assets.

The estimate of the value of the collection system is reliant upon the fixed asset inventory that was provided by the City. The asset inventory included the original cost of the asset, the acquisition date of the asset, and the estimated life of the asset for the purposes of depreciation. The acquisition date was used to determine the current age of the assets in 2013. Estimates were developed for the replacement cost new by applying a construction cost escalation factor to the original cost of the asset. The construction cost escalation factor that was used was the Engineering News Record

⁹ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers, Second Edition, 2005.

¹⁰ Section 1311 of the Pennsylvania Public Utility Code. The value of the property of the public utility included in the rate base shall be the original cost of the property when first devoted to the public service less the applicable accrued depreciation as such depreciation is determined by the commission.

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Construction Cost Index. The RCNLD estimate was calculated by subtracting indexed accumulated depreciation from the replacement cost new value. In addition, the OCLD estimate was calculated by subtracting accumulated depreciation from the original cost values. The collection system value was then estimated by averaging the RCNLD and OCLD values.

3.3 Asset Valuation Results

3.3.1 Replacement Cost New

An estimate of asset Replacement Cost New (“RCN”) was prepared using the trending method. The trending method is a method of estimating the asset’s reproductive cost new, in which a trend factor is applied to the asset’s historical cost to convert the known cost to an indication of current cost. The trending method was used because the historical cost data was available in the asset inventory provided by the City. The RCN estimate is provided in the Table 3-2 below.

3.3.2 Accumulated Depreciation

The estimated replacement cost of the assets was reduced by the amount of accumulated depreciation to determine the RCNLD amount. Accumulated depreciation for valuation purposes means the amount of physical deterioration, functional obsolescence, and economic obsolescence associated with the assets. Physical deterioration is the loss in value or usefulness due to using up or expiration of its useful life caused by wear and tear, deterioration, exposure to various elements, physical stresses, and similar factors.¹¹ Functional obsolescence is the loss in value or usefulness caused by inefficiencies or inadequacies when compared to more efficient or less costly replacement assets. Economic obsolescence is the loss in value of property caused by external factors such as the passage of new legislation, reduction in product demand, increased competition, or similar factors.

Estimated useful lives of the assets were provided by the City in the asset inventory. The estimated life of the sewer pipes, inlets, and manholes were assumed to be 75 years based on typical service lives and engineering judgment. This estimated useful life considers that there has been a significant deferred maintenance in the

¹¹ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers, Second Edition, p. 67.

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collection system, which has resulted in some of the assets being in disrepair, and an overall reduction in the useful life of the assets.

A summary of the estimated asset service lives that were used to estimate the value of the system is provided in Table 3-2.

3.3.3 Replacement Cost New Less Depreciation

The estimated RCNLD value was calculated by subtracting accumulated depreciation from the estimate of replacement cost new. The RCNLD value was estimated to be approximately \$41.9 million as summarized in Table 3-2.

3.3.4 Asset Original Cost

The asset original cost was determined based on the asset inventory provided by the City. The estimated original cost of the sewer and stormwater collection system is \$21.1 million, as summarized in Table 3-2.

3.3.5 Estimated Original Cost Less Depreciation

The estimated OCLD value was calculated by subtracting accumulated depreciation from the estimate of original cost. The OCLD value of the sewer and stormwater collection system is \$6.1 million, as summarized in Table 3-2.

3.4 Conclusions and Results

Based on the results of the study, the estimated value of the City's sewer and stormwater collection systems range from \$6.1 million (OCLD) to \$41.9 million (RCNLD), as shown in Table 3-2 and detailed in Appendix B.

In many asset transactions, the price paid for the assets falls between the OCLD and RCNLD values, and the specific price paid is typically based on other factors, including rates charged before and after the acquisition, potential efficiencies gains and cost reductions, and the cost of future liability (i.e., capital reinvestment in the system that may be needed), among other negotiating factors. The negotiated value should also consider the impact that the purchase price may have on sewer rates for customers of the City.

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In some cases where collection system assets are being transferred from one government agency to another, the purchase price was limited to the principal amount of outstanding debt, and if the debt was assumed by the new agency, then the assets were transferred at no cost in order to minimize rate increases to existing customers. However, in other cases, the owner has been looking to maximize its cash payment for the assets, and was not overly concerned with the resulting customer rate impacts.

Table 3-2: Sewer and Stormwater Collection System Valuation Summary

Asset Category	Estimated Service Life¹ (Years)	Original Cost	Accumulated Depreciation²	Original Cost Less Depreciation	Replacement Cost New	Accumulated Depreciation²	Replacement Cost New Less Depreciation
General Buildings and Structures	50	5,055,542	3,938,485	1,117,056	63,115,739	58,039,694	5,076,045
Motor Equipment and Vehicles	10	1,011,079	921,595	89,484	2,420,754	2,253,622	167,132
Office Equipment and Furnishings	5-15	120,440	114,418	6,022	283,399	269,229	14,170
Pump Stations	40	933,896	887,201	46,695	17,029,998	16,178,498	851,500
Sewer							
Combined Inlets, Pipes, and Manholes	75	6,219,065	4,286,729	1,932,336	170,302,596	152,652,311	17,650,284
Sanitary Service, Pipes, and Manholes	75	3,494,224	2,602,042	892,182	94,701,823	85,635,140	9,066,684
Stormwater Inlets, Pipes, and Manholes	75	4,273,131	2,300,032	1,973,099	55,633,304	46,560,160	9,073,144
Net Asset Value		\$ 21,107,000	\$ 15,051,000	\$ 6,057,000	\$ 403,488,000	\$ 361,589,000	\$ 41,899,000

¹Service lives estimated based on reported asset condition and typical service lives based on engineering judgement.

²A maximum accumulated depreciation of 95 percent was applied to reflect salvage value and assets in service past their depreciable life.

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4. POTENTIAL FOR ONGOING REVENUE FROM THE OPERATING AUTHORITY

4.1 Right-of-Way and Franchise Fees

One option for generating ongoing revenue from a new operating authority is to establish a right-of-way or franchise fee for the use of and access to the public right-of-way. The City owns and manages public rights-of-way (streets, road sidewalk, footpaths, or strips of land) that are used extensively by the water and sewer system for location of buried pipelines and infrastructure. The City should consider recovering its cost of acquiring, maintaining, managing, and administering the costs associated with providing rights of way to utilities. Franchise or right-of-way fees are often used to recover costs related to utilities that utilize the right-of-way, including telecommunications, cable television, electric, natural gas, water, and sewer.

There are two common methods of assessing fees for the use of the rights-of-way. One common method is to base the fee on the percent of gross receipts of the utility utilizing the rights-of-way, and the other is to base the fee on a linear foot charge. The percentage of gross receipts method results in revenue to the City that increases and decreases with the economy and gross revenues of the utility, it does not have to be adjusted annually, and is relatively easy to administer. The linear foot charge method can be directly correlated to the amount of use of the rights-of-way, the amount of the fee would need to be periodically updated, and is more data intensive to administer.

Several municipalities in Pennsylvania make use of franchise fees to generate revenue and recover the cost of ownership, maintenance, and use of the rights-of-way, including the municipalities listed in Table 4-1.

Table 4-1: Municipality Use of Franchise Fees in Pennsylvania

Community	Utility	Method	% of Receipts/ Linear Foot Cost
Pittsburgh	Cable Services	Gross Revenues	5%
Philadelphia	Cable Services	Gross Revenues	5%
Lancaster	Cable Services	Gross Revenues	5%
Allentown	Cable Services	Gross Revenues	5%
Bethlehem	Cable Services	Gross Revenues	5%
Scranton	Cable Services	Gross Revenues	5%
Erie	Cable Services	Gross Revenues	5%
Blair Township	Cable Services	Gross Revenues	5%

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In addition to the table, above, some municipalities have adopted ordinances to charge franchise fees on other utilities, besides cable services. For example, the City of Pittsburgh has adopted the following City Ordinance regarding these fees:

Any water purveyor, whether public or private (if allowed by ordinance), who provides municipal water service shall pay to the city a franchise fee in the amount of seven percent of the entity's gross water revenues collected in the city. Such franchise fee is justified on the basis that franchise fees generally compensate the city for a water purveyor's utilization of city rights-of-way, including the burden on the city's infrastructure. A public water system likewise benefits from use of the public rights-of-way for the pipelines, distribution systems and other aspects of the existing infrastructure. Therefore, it is reasonable to factor the franchise payment into the cost of the water purveyor's provision of water service. Additionally, courts have recognized that where a municipality acts in its proprietary capacity, it has the same rights and liabilities of any private person or entity.

Several other utilities across the U.S. have adopted similar franchise / right-of-way fees for the use of the public right of way. These utilities include the following:

- City of Virginia Beach VA charges its Water and Sewer Enterprise Fund of the City \$4,000,000 per year for use of City's public right of way.
- The District of Columbia's General Fund charges DC Water and Sewer Authority a right of way fee to help fund street repairs. The fee is billed as a customer charge per 1,000 gallon, and comprises approximately 2.0 percent of a residential customer's water and sewer bill.
- Salt Lake City charges a 6 percent franchise fee on water, sewer and storm water charges billed to city residents. This fee reimburses the city for use of its streets for pipe lines which supply customers with water and sewer storm water service.
- The City of Arlington, TX receives franchise fee payments from vendors engaged in the business of providing electric, gas, telephone, water and sewer, sanitation, cable and taxicab service to the citizens of Arlington. The amount charged to water and sewer systems is 5.8 percent of gross receipts.
- The City of Salem, OR charges its Water and Sewer Enterprise Funds a franchise fee in the amount of 5.0 percent of gross receipts for the right and privilege to

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place, lay, maintain and operate in, upon and under the streets, alleys, public highways, and other public places water, wastewater and stormwater systems.

Based on the research completed, it is customary for municipalities to charge franchise or right-of-way fees to utilities that utilize the City's right-of-way in the range of 5.0 percent to 7.0 percent of gross receipts. If this level of fees were charged to the Authority for the use of the rights-of-way by the water and sewer utilities, it could generate approximately \$1,566,000 to \$2,193,000 in revenues per year (based on 2010 gross receipts from the Water and Sewer systems), as shown in Table 4-2.

Table 4-2: Estimated Potential Franchise Fee Revenues

Right of Way Fee %	Revenues from Water	Revenues from Sewer	Total Potential Revenues from Right of Way Fees
5.0%	\$818,900	\$747,250	\$1,566,150
6.0%	\$982,680	\$896,700	\$1,879,380
7.0%	\$1,146,460	\$1,046,150	\$2,192,610

*Estimates based on Sewer Fund operating revenues of \$14,945,000 from the FY2010 CAFR, and THA's Water Segment operating revenues of \$16,377,663 as reported in the FY2010 Financial Audit Report.

4.2 Payment in Lieu of Taxes

PILOTs are commonly used mechanisms for the recovery of City services from tax-exempt entities. PILOTs provide compensation to a government entity for the loss associated with not being able to recover revenues through the taxation of property. The tax revenues that would otherwise be collected would serve to offset the costs related to the provision of government services, such as providing police and fire service, and the contribution toward street maintenance and improvements. In the case of the City, PILOT revenues are intended to capture a percentage of the cost of government provided services to the operating Authority. This method of cost recovery has already been implemented by the City through various PILOT agreements, such as the PILOT agreements between the City and Uptown Partners, LP., Pinnacle (Harrisburg Hospital Polyclinic), PHEAA, PA Housing, Penn Center, and eight others.

The City uses a two-tier method of assigning property tax: land currently taxed at 30.97 mills while improvements are taxed at 5.16 mills. All assessment ratios in Dauphin County are based on 100 percent of asset value. Assuming that property tax rate is applied to the net capital assets associated with the water and sewer systems, the potential PILOT payments to the City would be approximately \$670,000, based on the 2010 reported net asset original cost value.

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Table 4-3: Estimated Potential Water and Sewer PILOT Payments

Asset	Value	Reference	Mills	Potential PILOT Pmt
Water Segment Assets, Net of Depreciation	\$61,860,131	(1)	5.16	\$ 319,198
Water Segment Assets, Not Being Depreciated	2,887,000	(2)	30.97	89,410
Sewer Segment Assets, Net of Depreciation	-	(1)	5.16	-
Sewer Segment Assets, Not Being Depreciated	-	(1)	30.97	-
Sewer Fund Assets, Net of Depreciation	40,419,127	(3)	5.16	208,563
Sewer Fund Assets, Not Being Depreciated	1,696,031	(3)	30.97	52,526
Total				\$ 669,697

(1) Independent Auditor's Report for The Harrisburg Authority, Year Ended December 31, 2010, p.31.

(2) Estimated. Further study may result in the allocation of land vs. asset improvements differently than shown above.

(3) Comprehensive Annual Financial Report, City of Harrisburg, Fiscal Year Ending December 31, 2010, p.22.

4.3 Direct Payments

There are several areas where the City could receive direct payment for services provided to the new authority on an ongoing basis. These areas include vehicle maintenance, street cleaning, customer billing, and administrative support.

Vehicle Maintenance

Vehicle maintenance support could be provided by the City to the new authority on an ongoing basis, as described in Section 2.3.

Street Sweeping

The City maintains and cleans the streets on a routine basis. This service is beneficial to the new authority related to minimizing the amount of debris entering the stormwater collection system. The operating cost of this activity is estimated at approximately \$1,030,000 per year. This amount of operating costs could be shared by the new authority for the benefit it provides related to stormwater management.

Customer Billing

As discussed in Section 2.1.2, the billing and customer service functions for water, sewer, and refuse services are provided by the City's Operations and Revenue Bureau for approximately 19,000 utility customer accounts. During a transition period, the City could continue to provide billing and customer service on behalf of the new authority

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until such time that the new authority has established the systems and processes necessary to take over this function. A typical cost of providing billing and customer service is in the range of \$2 to \$5 per bill, based on information from other municipal utilities. Therefore, assuming a cost of \$3 per bill, there is an opportunity for the City to be compensated for this service in an amount of roughly \$57,000 per month (\$3 per bill x 19,000 customer accounts) during this transition period.

Following the transition period, the City will need to decide whether it continues to bill for refuse service, or whether an arrangement is made with the new authority to provide billing service for refuse on behalf of the City.

Administrative Support

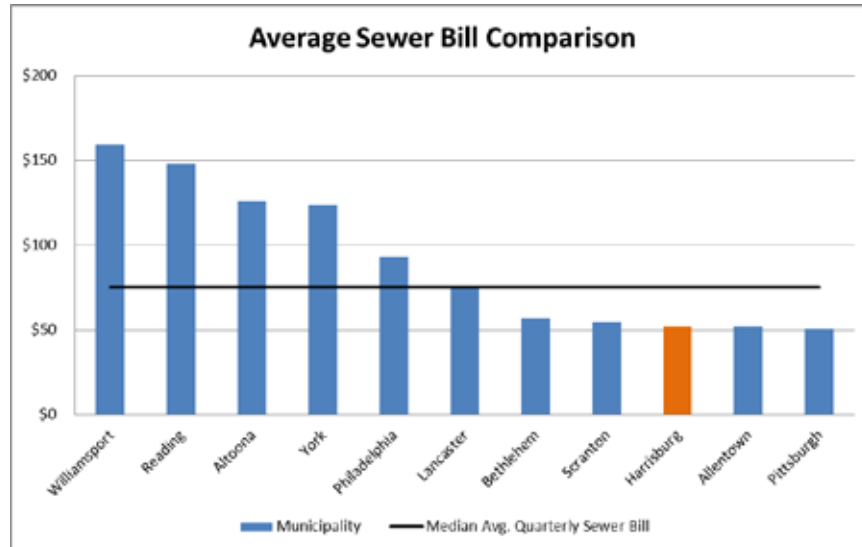
The City may have an opportunity to provide the new authority with administrative support related to administrative, legal, and human resources. These administrative support functions are currently provided to deal with labor management issues, labor negotiations, and the labor grievance process. Potentially, these services could continue to be provided to management of the water and sewer employees once the new authority is formed. Compensation for these services could be handled with an intermunicipal agreement that specifies billing rates and time and expense compensation provisions.

5. SEWER RATE IMPACT ANALYSIS

Figure 5-1 provides a comparison of the quarterly sewer cost for City of Harrisburg customers with billed flow of 15,000 gallons per quarter. As shown in Figure 5-1, the bill comparison indicates that sewer rates for the City are below the average for the sample set of communities.

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Figure 5.1 Average Residential Sewer Bill Comparison



Further analysis was performed to estimate the projected sewer rate impacts of various asset transfer compensation amounts, potential franchise fees, and PILOT payments. Five scenarios were prepared, one assuming no compensation for the collection system assets, and four scenarios with varying asset compensation amounts ranging from \$5 million to \$20 million to reflect the range of collection system asset value. For the purpose of modeling, it was assumed that the compensation amounts would be paid in ten equal annual payments over ten years. Table 5-1 provides a summary of the compensation amounts under each scenario.

Table 5-1: Assumed Annual Compensation Amounts Paid by the New Authority to the City (Years 1 through 10 after formation)

	\$5 Million	\$10 Million	\$15 Million	\$20 Million
Annual Right of Way	\$818,900	\$818,900	\$818,900	\$818,900
PILOT Payments				
Building Improvements	208,563	208,563	208,563	208,563
Land	52,526	52,526	52,526	52,526
Compensation	500,000	1,000,000	1,500,000	2,000,000
Annual Total	\$1,579,989	\$2,079,989	\$2,579,989	\$3,079,989

*Note: PILOT payments shown are for the sewer system, and exclude potential water system PILOT payments.

The sewer rate impact analysis also considered the impact of the implementation of THA's current capital improvement plan (CIP). This plan includes \$110 million in capital projects over 20 years, with the biological nutrient removal project, estimated at

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\$50 million planned for FY2014 and FY2015. Table 5-2 provides a summary of the annual CIP.

Table 5-2: Projected Annual Capital Improvements (2013 dollars)

Year	Amount	Year	Amount	Year	Amount	Year	Amount
2012	\$225,000	2017	\$14,189,267	2022	\$1,626,259	2027	\$1,931,486
2013	1,905,000	2018	2,572,191	2023	1,683,178	2028	1,999,088
2014	27,015,000	2019	1,871,793	2024	1,942,089	2029	2,269,056
2015	27,288,225	2020	6,638,130	2025	1,833,063	2030	2,176,473
2016	7,922,963	2021	1,571,265	2026	1,866,170	2031	2,216,424

A summary of the financial modeling scenarios is provided below:

1. Baseline: No compensation payments; annual right of way payments totaling \$818,900; annual PILOT payments totaling \$261,189; \$110.7M capital improvements program
2. \$5M Compensation: \$500,000 compensation payment per year for ten years; annual right of way payments totaling \$818,900; annual PILOT payments totaling \$261,189; \$110.7M capital improvements program
3. \$10M Compensation: \$1,000,000 compensation payment per year for ten years; annual right of way payments totaling \$818,900; annual PILOT payments totaling \$261,189; \$110.7M capital improvements program
4. \$15M Compensation: \$1,500,000 compensation payment per year for ten years; annual right of way payments totaling \$818,900; annual PILOT payments totaling \$261,189; \$110.7M capital improvements program
5. \$20M Compensation: \$2,000,000 compensation payment per year for ten years; annual right of way payments totaling \$818,900; annual PILOT payments totaling \$261,189; \$110.7M capital improvements program.

The financial model used to evaluate the sewer rate impacts of these scenarios utilized several other key assumptions. These included:

- Escalation of O&M expenses at 3.0 percent per year, employee benefits at 10 percent per year, and electricity cost at 5.0 percent per year ,

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- Assumes a mix of paygo cash funding and debt financing with an interest rate of 4.5 percent and a term of 25 years.
- Flat growth in customer accounts and usage.

The projected sewer rate impacts under each scenario are summarized in Table 5-3 and Figure 5-2.

TABLE 5-3: Projected Future Rate Revenue Increases (2014-2018)

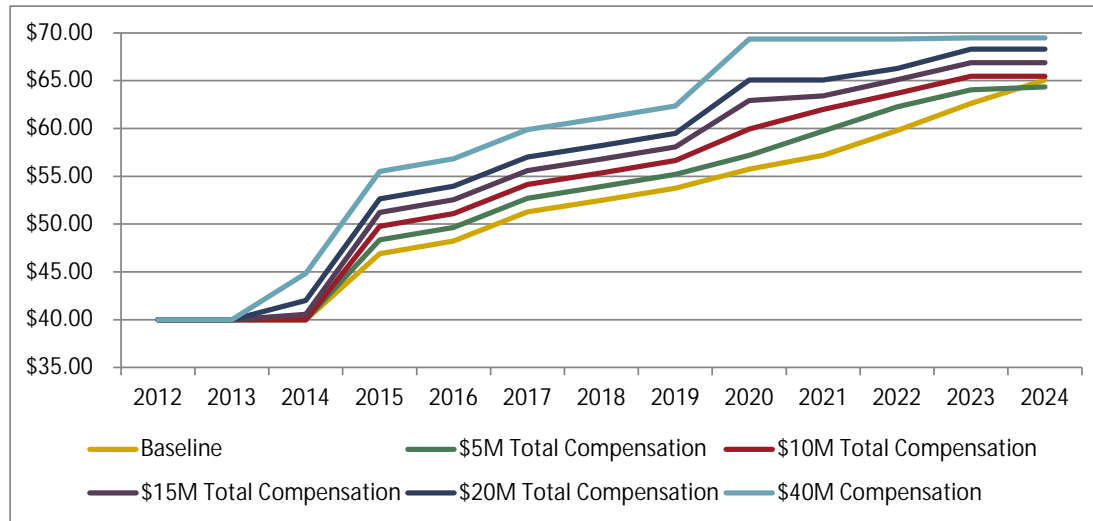
	2014	2015	2016	2017	2018
Baseline	0.0%	17.3%	2.8%	6.3%	2.4%
\$10M Compensation	0.0%	24.4%	2.7%	6.0%	2.2%
\$15M Compensation	1.4%	26.2%	2.6%	5.8%	2.2%
\$20M Compensation	5.0%	25.3%	2.5%	5.6%	2.1%
\$30M Compensation	12.0%	23.7%	2.4%	5.4%	2.0%

The sewer rate increases are driven most significantly by the planned capital projects; however, the amount of compensation payments made by the Authority to the City also has a significant impact on the projected rate increases. As shown in Table 5-3 and each \$5 million increase of the compensation results in approximately an additional 3.6 percent increase in sewer rates.

The projected change to the sewer bill under each scenario over time is shown in Figure 5-2, based on a year 1 monthly sewer bill of \$40. The analysis indicates that the monthly sewer bill assuming a compensation amount of \$20 million would be approximately \$5 to \$9 higher than the monthly sewer bill assuming no compensation for the collection system assets.

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Figure 5-2: Projected Bills (assuming \$40/month bill in 2012)



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6. SUMMARY AND CONCLUSIONS

A summary of the conclusions of this report are as follows:

- Based on the analysis of General Fund costs allocated to the Water and Sewer Bureaus, there is the potential for the City to lose the ability to recover approximately \$1.7 million in indirect costs from the Water and Sewer Bureaus.
- It is anticipated that all City staff located in the Water and Sewer Bureau would be transferred to the new authority. If this were to occur, it would likely result in additional financial impacts associated with benefit payouts to the staff that are transferred. This includes payout of accrued vacation, sick time, and personnel time. In addition, for those eligible for retirement, the City may need to incur costs associated with life insurance pay ups of \$5,000 per employee. The estimated negative financial impact of benefits payout is approximately \$1,178,500.
- The City should consider transferring the customer service representative/account specialist to the new authority. The anticipated annual budgeted savings to the City associated with the transfer of this position to the new authority is estimated to be approximately \$46,000 per year. However, the estimated negative financial impact of benefits payout is approximately \$29,100.
- Transferring the customer service and billing function to the new authority will allow the City to avoid potentially costly billing system upgrades that are needed. While the current utility billing system appears to meet the needs of the City, there is a high probability that this system will need to be replaced at some point in the foreseeable future. Billing system replacement for the City can cost between \$500,000 to in excess of \$2 million, depending on the system functionality. The transfer of water and sewer operations to the new Authority would prevent the City from needing to incur these potential capital costs.
- The City will avoid or reduce costs associated with upcoming needed technology upgrades. The mainframe replacement and telephony system upgrade will cost less after the transfer of the Water and Sewer Bureaus, and the City will avoid the cost and risk associated with any future billing system replacement.
- The net total negative impact of the transfer of the Water and Sewer Bureaus to a new operating authority is approximately \$2.6 million, or \$15 million over 10 years. However, this negative financial impact could potentially be off-set by receiving compensation for the value of sewer and stormwater assets transferred to the new

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authority, and the receipt of recurring payments from the new authority in the form of franchise fees, right-of-way fees, and/or PILOT payments.

- The City should consider negotiating compensation for the transfer of sewer and stormwater collection system assets to a new operating authority. The estimated value of the City's sewer and stormwater collection systems range from \$6.1 million (OCLD) to \$41.9 million (RCNLD). In many asset transactions, the price paid for the assets falls between the OCLD and RCNLD values, and the specific price paid is typically based on other factors, including rates charged before and after the acquisition, potential efficiencies gains and cost reductions, and the cost of future liability (i.e., capital reinvestment in the system that may be needed), among other negotiating factors.
- The City should consider negotiating a franchise fee or right-of-way fee charged to the new authority for the authority's use of the City's right of way, and to off-set some of the negative financial impacts of transferring the Water and Sewer Bureaus to the operating authority. It is customary for municipalities in Pennsylvania to charge franchise or right-of-way fees to utilities that utilize the City's right-of-way in the range of 5.0 percent to 7.0 percent of gross receipts. If this level of fees were charged to the new authority for the use of the rights-of-way by the water and sewer utilities, it could generate revenues in the range of \$1,566,000 to \$2,193,000 per year.
- The City should consider negotiating a PILOT charged to the new authority to off-set the City's cost related to providing police and fire service, and to provide compensation toward street maintenance and improvements. Based on current City property tax rates, and the net asset value of the water and sewer systems, the potential PILOT payments to the City were calculated to be approximately \$670,000 per year.
- The City should consider a combination of asset compensation, franchise or right-of-way fees, and PILOT payments as part of the agreement to transfer water and sewer operations to a separate operating authority in order to minimize the negative financial impact to the City of the transaction.
- There are opportunities for the City and the new Authority to establish an ongoing service relationship, and for the City to further minimize its financial impacts associated with the creation of a new operating authority. These opportunities include the following:

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- The City should consider providing fleet maintenance services to the new operating authority. Based on historical costs, there is also a potential for the City to offset costs by approximately \$237,000 per year by entering into a contract with the new authority to provide this service.
 - The City maintains and cleans the streets on a routine basis. This service is beneficial to the new authority related to minimizing the amount of debris entering the stormwater collection system. The operating cost of this activity is estimated at approximately \$1,030,000 per year. This amount of operating costs could be shared by the new authority for the benefit it provides related to stormwater management.
 - During a transition period, the City could continue to provide billing and customer service on behalf of the new authority until such time that the new authority has established the systems and processes necessary to take over this function. A typical cost of providing billing and customer service is in the range of \$2 to \$5 per bill, based on information from other municipal utilities. Therefore, assuming a cost of \$3 per bill, there is an opportunity for the City to be compensated for this service in an amount of roughly \$57,000 per month (\$3 per bill x 19,000 customer accounts) during this transition period.
 - The City may have an opportunity to provide the new authority with administrative support related to administrative, legal, and human resources. These administrative support functions are currently provided to deal with labor management issues, labor negotiations, and the labor grievance process. Potentially, these services could continue to be provided to management of the water and sewer employees once the new authority is formed. Compensation for these services could be handled with an intermunicipal agreement that specifies billing rates and time and expense compensation provisions.
- A projection of the sewer rate impacts of various levels of compensation was completed. The projections indicate that future sewer rate increases will be driven most significantly by the planned capital projects; however, the amount of compensation payments made by the Authority to the City also has a significant impact on the projected rate increases. For each \$5 million increase of the compensation from the Authority to the City, sewer rates for City customers would need to be increased by an additional 3.6 percent.



Appendix A
Potential Transfer of Staff from the City to the New Operating Authority

Appendix A

Potential Transfer of Staff from the City to the New Operating Authority

Existing City Staff	New Authority Organization
Water Bureau - Administration	OPERATIONS
1. Director	· Director - #1
2. Supervisor Mtnce/DeHart	· Secretary - #7
3. Water Quality	Water Operations
4. 1/3 Planner	· Water Quality - #3
5. ½ Computer programmer	· 9 Operators - #28-#36
6. Paralegal	Water Distribution
7. Secretary	· Superintendent - #9
8. Administrative Assistant	· Supervisor - #10
Water Bureau - Distribution	· 7 Service Persons - #11-#17
9. Superintendent	· 2 Laborers - #20 and #21
10. Supervisor	Sewer Operations
11. Service Person IV	· Plant Superintendent - #37
12. Service Person IV	· Admin Assistant - #41
13. Service Person IV	· Supervisor -- #44
14. Service Person IV	· 14 Operators - #47- #60
15. Service Person III	
16. Service Person III	
17. Service Person II	
18. Water Meter Reader	
19. Secretary	
20. Laborer	
21. Laborer	
Water Bureau – Operations/Maintenance	MAINTENANCE
22. O/M Superintendent	Reservoir/Water Plant
23. Electrician Tech	· Super Mtnce/De Hart - #2
24. Maintenance Specialist IV	· O/M Superintendent - #22
25. Maintenance Specialist IV	· Electrician Tech - #23
26. Maintenance Specialist IV	Distribution
27. Maintenance Specialist IV	· 4 Maintenance Specialists - #24 - #27
28. Operator IV	AWWTP
29. Operator IV	· Director of Adm/Mtnce - #38
30. Operator IV	· Supervisor - #62
31. Operator IV	· Electrician - #63
32. Operator IV	· 5 Maintenance Workers - # 64-#67,#70
33. Operator IV	· 2 Laborers - #68-#69
34. Operator IV	Conveyance
35. Operator II	· 2 Field Maintenance Specialists - #71-#72
36. Operator I	· 2 Field Maintenance Workers - #73 - #74
Sewer Bureau - Admin	Collection (new)
37. Plant Superintendent	· 2 Field Maintenance Specialists (new)
38. Director of Admin/Maintenance	· 2 Field Maintenance Workers (new)
39. ½ computer programmer	
40. 1/3 planner	
41. Admin Assistant	
42. Admin Assistant (for Vehicles)	
Sewer Bureau – Operations	TECHNICAL SUPPORT SERVICES
43. Pretreatment Coordinator	· Engineer (new)
44. Supervisor	· Planner - #4 and #40 combined
45. Lab tech II	· Pre-Treatment Coordinator - #43
46. Lab tech IV	· Computer Programmer - #5 and #39
47. Operator I	· 2 Lab Techs - #45 and #46
48. Operator I	· SCADA Tech (new)
49. Operator I	· Health & Safety Coordinator (new)
50. Operator I	
51. Operator IV	BUSINESS SUPPORT SERVICES
52. Operator IV	· Financial Director (from THA)
53. Operator IV	· Accountant (new)
54. Operator IV	· Accounting Assistant (from THA)
55. Operator IV	· Billing/Customer Service Manager (new)
56. Operator IV	· Customer Service Rep (new)
57. Operator IV	· 2 Meter Readers - #18 and #61
58. Operator IV	· Secretary - #19
59. Operator IV	
60. Operator IV	ADMINISTRATIVE SUPPORT SERVICES
61. Water Meter Reader	· Executive Director (from THA)
Sewer Bureau – Maintenance	· Document Manager and RTK Officer (from THA)
62. Supervisor	· Receptionist (from THA)
63. Electrician III	· Paralegal - #6
64. Maintenance Worker IV	· Administrative Assistant - #8
65. Maintenance Worker IV	· Human Resources Generalist (new)
66. Maintenance Worker IV	· Public Relations Specialist (new)
67. Maintenance Worker IV	
68. Laborer I	
69. Laborer III	
70. Maintenance Worker	
Sewer Bureau – Line Maintenance	
71. Field Maintenance Spec II	
72. Field Maintenance Spec II	
73. Field Mtnce Worker I	
74. Field Mtnce Worker II	

Appendix B
Sewer and Stormwater Collection System Valuation Details

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
PAXTON CREEK	GBS	1904	109	50	9,437	97	\$244,634.00	\$232,402.30	\$12,231.70	\$23,800,794.94	\$22,610,755.19	\$1,190,039.75
FRONT STREET	PS	1911	102	40	9,437	93	\$6,383.00	\$6,063.85	\$319.15	\$647,721.45	\$615,335.37	\$32,386.07
HEMLOCK STREET	GBS	1912	101	50	9,437	91	\$6,370.00	\$6,051.50	\$318.50	\$660,608.90	\$627,578.46	\$33,030.45
SPRING CREEK	PS	1913	100	40	9,437	100	\$43,849.00	\$41,656.55	\$2,192.45	\$4,138,148.52	\$3,931,241.10	\$206,907.43
SPRING CREEK	PS	1921	92	40	9,437	202	\$37,908.00	\$36,012.60	\$1,895.40	\$1,771,029.86	\$1,682,478.36	\$88,551.49
ASYLUM RUN	GBS	1923	90	50	9,437	214	\$47,242.00	\$44,879.90	\$2,362.10	\$2,083,343.50	\$1,979,176.33	\$104,167.18
ASYLUM RUN	GBS	1928	85	50	9,437	207	\$21,671.00	\$20,587.45	\$1,083.55	\$987,995.55	\$938,595.77	\$49,399.78
PAXTON & FRONT STREETS	PS	1958	55	40	9,437	759	\$67,656.00	\$64,273.20	\$3,382.80	\$841,222.58	\$799,161.45	\$42,061.13
MAIN	GBS	1958	55	50	9,437	759	\$626,218.00	\$594,907.10	\$31,310.90	\$7,786,282.40	\$7,396,968.28	\$389,314.12
CONTROL	GBS	1958	55	50	9,437	759	\$767,940.00	\$729,543.00	\$38,397.00	\$9,548,428.36	\$9,071,006.94	\$477,421.42
BUILDING	GBS	1958	55	50	9,437	759	\$65,901.00	\$62,605.95	\$3,295.05	\$819,401.23	\$778,431.16	\$40,970.06
GARAGE & STORAGE	GBS	1958	55	50	9,437	759	\$21,272.00	\$20,208.40	\$1,063.60	\$264,492.24	\$251,267.62	\$13,224.61
HEMLOCK ST & SPR CK	PS	1958	55	40	9,437	759	\$150,425.00	\$142,903.75	\$7,521.25	\$1,870,357.50	\$1,776,839.62	\$93,517.87
& FLOOD CNTRL	GBS	1958	55	50	9,437	759	\$603,095.00	\$572,940.25	\$30,154.75	\$7,498,775.17	\$7,123,836.41	\$374,938.76
MAIN WELL & STORAGE	GBS	1958	55	50	9,437	759	\$30,002.00	\$28,501.90	\$1,500.10	\$373,039.49	\$354,387.52	\$18,651.97
PIPE	GBS	1958	55	50	9,437	759	\$25,728.00	\$24,441.60	\$1,286.40	\$319,897.34	\$303,902.47	\$15,994.87
FENCING	GBS	1958	55	10	9,437	759	\$11,449.00	\$10,876.55	\$572.45	\$142,354.81	\$135,237.07	\$7,117.74
INTERUNIT	GBS	1958	55	50	9,437	759	\$115,393.00	\$109,623.35	\$5,769.65	\$1,434,775.89	\$1,363,037.09	\$71,738.79
EXCAVAT & ENCSMNT	GBS	1958	55	50	9,437	759	\$150,212.00	\$142,701.40	\$7,510.60	\$1,867,709.09	\$1,774,323.64	\$93,385.45
FRONT STREET	PS	1958	55	40	9,437	759	\$494,567.00	\$469,838.65	\$24,728.35	\$6,149,357.46	\$5,841,889.59	\$307,467.87
SPRING CREEK	PS	1958	55	40	9,437	759	\$111,226.00	\$105,664.70	\$5,561.30	\$1,382,964.15	\$1,313,815.95	\$69,148.21
SPRING CREEK	PS	1963	50	40	9,437	901	\$21,882.00	\$20,787.90	\$1,094.10	\$229,196.83	\$217,736.99	\$11,459.84
& FLOOD CTRL CHAMBERS	GBS	1963	50	50	9,437	901	\$6,180.00	\$5,871.00	\$309.00	\$64,730.66	\$61,494.13	\$3,236.53
GARAGE & STORAGE	GBS	1963	50	50	9,437	901	\$31,680.00	\$30,096.00	\$1,584.00	\$331,823.21	\$315,232.05	\$16,591.16
REQUISITIONS	GBS	1982	31	50	9,437	3,825	\$149,823.00	\$92,890.26	\$56,932.74	\$369,652.31	\$229,184.44	\$140,467.88
REQUISITIONS	GBS	1983	30	50	9,437	4,056	\$395,493.00	\$237,295.80	\$158,197.20	\$920,210.61	\$552,126.36	\$368,084.24
REQS 1978 SERIES	GBS	1984	29	50	9,437	4,146	\$1,458,519.00	\$845,941.02	\$612,577.98	\$3,319,931.89	\$1,925,560.49	\$1,394,371.39
REQS 1984 SERIES	GBS	1984	29	50	9,437	4,146	\$82,190.00	\$47,670.20	\$34,519.80	\$187,083.75	\$108,508.57	\$78,575.17
REQS 1984 SERIES	GBS	1984	29	50	9,437	4,146	\$28,767.00	\$16,684.86	\$12,082.14	\$65,480.45	\$37,978.66	\$27,501.79
WASTEWATER COLLECTION SYS	SS	1986	27	75	9,437	4,295	\$66,172.00	\$23,821.92	\$42,350.08	\$145,397.68	\$52,343.16	\$93,054.51
REPLACEMENT STEAM BOILER	GBS	1991	22	50	9,437	4,835	\$9,855.00	\$4,336.20	\$5,518.80	\$19,235.64	\$8,463.68	\$10,771.96
NEW ROOF	GBS	1996	17	50	9,437	5,620	\$25,890.00	\$8,802.60	\$17,087.40	\$43,475.25	\$14,781.59	\$28,693.67
HEAT SYSTEM MODIFICATION	GBS	1996	17	50	9,437	5,620	\$26,565.00	\$9,032.10	\$17,532.90	\$44,608.73	\$15,166.97	\$29,441.76
NEW ROOF	GBS	1997	16	20	9,437	5,825	\$21,180.00	\$16,944.00	\$4,236.00	\$34,314.40	\$27,451.52	\$6,862.88
LIGHTING RETROFIT PROJ	GBS	1997	16	50	9,437	5,825	\$28,826.00	\$9,224.32	\$19,601.68	\$46,701.93	\$14,944.62	\$31,757.31
ENERGY PRODUCTION PRODUCT	GBS	1998	15	50	9,437	5,920	\$9,984.00	\$2,995.20	\$6,988.80	\$15,915.83	\$4,774.75	\$11,141.08
PAXTON CREEK TIDE GATE	GBS	2001	12	50	9,437	6,342	\$43,462.69	\$10,431.05	\$33,031.64	\$64,675.05	\$15,522.01	\$49,153.03
NCWM SEWER LINES	SS	2002	11	75	9,437	6,538	\$129,800.00	\$19,037.33	\$110,762.67	\$187,359.69	\$27,479.42	\$159,880.27
DEMOLITION AND CLEARING	L	1900	113		9,437	97	\$99,475.00	\$0.00	\$99,475.00	\$9,678,066.32	\$0.00	\$9,678,066.32
RIGHT OF WAY	L	1900	113		9,437	97	\$67,133.00	\$0.00	\$67,133.00	\$6,531,466.46	\$0.00	\$6,531,466.46
LAND	L	1911	102		9,437	93	\$133,595.00	\$0.00	\$133,595.00	\$13,556,689.09	\$0.00	\$13,556,689.09
SEWER AUTHORITY LAND ACQUISITI	L	1984	29		9,437	4,146	\$61,218.00	\$0.00	\$61,218.00	\$139,346.55	\$0.00	\$139,346.55
MISC ITEMS	L	1984	29	40	9,437	4,146	\$7,513.00	\$5,446.93	\$2,066.08	\$17,101.35	\$12,398.48	\$4,702.87
FENCING	L	2002	11	40	9,437	6,538	\$7,737.00	\$2,127.68	\$5,609.33	\$11,167.97	\$3,071.19	\$8,096.77
CONCRETE SLABS	L	2003	10	40	9,437	6,694	\$12,904.67	\$3,226.17	\$9,678.50	\$18,193.14	\$4,548.28	\$13,644.85
FENCING AT PUMP STATION 2	L	2004	9	40	9,437	7,115	\$8,695.00	\$1,956.38	\$6,738.63	\$11,532.97	\$2,594.92	\$8,938.05
CHAIN-320 FEET	L	2006	7	40	9,437	7,749	\$19,546.67	\$3,420.67	\$16,126.00	\$23,804.17	\$4,165.73	\$19,638.44
TANK TRUCK	MV	1960	53	10	9,437	824	\$13,200.00	\$12,540.00	\$660.00	\$151,179.57	\$143,620.59	\$7,558.98
CC	MV	1966	47	10	9,437	1,019	\$5,362.00	\$5,093.90	\$268.10	\$49,659.12	\$47,176.16	\$2,482.96
3/4 TON VAN	MV	1975	38	10	9,437	2,212	\$5,799.00	\$5,509.05	\$289.95	\$24,740.84	\$23,503.79	\$1,237.04
11 - TON TRUCK	MV	1977	36	10	9,437	2,576	\$16,770.00	\$15,931.50	\$838.50	\$61,437.51	\$58,365.63	\$3,071.88
JET VACTOR	MV	1978	35	10	9,437	2,776	\$77,532.00	\$73,655.40	\$3,876.60	\$263,577.24	\$250,398.38	\$13,178.86
60 CAB & CHASSIS W/CRANE	MV	1978	35	10	9,437	2,776	\$20,243.00	\$19,230.85	\$1,012.15	\$68,817.96	\$65,377.06	\$3,440.90
CHASSIS-CAB	MV	1978	35	10	9,437	2,776	\$28,644.00	\$27,211.80	\$1,432.20	\$97,377.94	\$92,509.04	\$4,868.90

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
4 X 4 BLAZER	MV	1979	34	10	9,437	3,003	\$7,554.00	\$7,176.30	\$377.70	\$23,739.31	\$22,552.34	\$1,186.97
1980 FAIRMONT	MV	1979	34	10	9,437	3,003	\$6,132.00	\$5,825.40	\$306.60	\$19,270.51	\$18,306.98	\$963.53
1980 PICK-UP	MV	1980	33	10	9,437	3,237	\$6,478.00	\$6,154.10	\$323.90	\$18,886.20	\$17,941.89	\$944.31
1980 P/U-D150	MV	1980	33	10	9,437	3,237	\$5,930.00	\$5,633.50	\$296.50	\$17,288.54	\$16,424.12	\$864.43
1980 4 WD 1/2 TON	MV	1980	33	10	9,437	3,237	\$6,939.00	\$6,592.05	\$346.95	\$20,230.22	\$19,218.71	\$1,011.51
1980 W-200/PLOW	MV	1980	33	10	9,437	3,237	\$10,070.00	\$9,566.50	\$503.50	\$29,358.45	\$27,890.53	\$1,467.92
1980 W/200	MV	1980	33	10	9,437	3,237	\$8,762.00	\$8,323.90	\$438.10	\$25,545.06	\$24,267.81	\$1,277.25
1980	MV	1980	33	10	9,437	3,237	\$40,139.00	\$38,132.05	\$2,006.95	\$117,022.73	\$111,171.59	\$5,851.14
1982 TRUCK W/C	MV	1982	31	10	9,437	3,825	\$17,396.00	\$16,526.20	\$869.80	\$42,920.46	\$40,774.43	\$2,146.02
1982 TRUCK W/C	MV	1982	31	10	9,437	3,825	\$17,396.00	\$16,526.20	\$869.80	\$42,920.46	\$40,774.43	\$2,146.02
SEWER CLEAN TRK	MV	1983	30	10	9,437	4,056	\$52,298.00	\$49,683.10	\$2,614.90	\$121,684.01	\$115,599.81	\$6,084.20
CITATION II	MV	1984	29	10	9,437	4,146	\$6,176.00	\$5,867.20	\$308.80	\$14,058.03	\$13,355.13	\$702.90
4 X 4 PICK UP GMC	MV	1984	29	10	9,437	4,146	\$8,991.00	\$8,541.45	\$449.55	\$20,465.63	\$19,442.35	\$1,023.28
1985 PICK-UP	MV	1985	28	10	9,437	4,195	\$13,414.00	\$12,743.30	\$670.70	\$30,176.77	\$28,667.93	\$1,508.84
FOUR-WHEEL DRIVE	MV	1985	28	10	9,437	4,195	\$12,680.00	\$12,046.00	\$634.00	\$28,525.53	\$27,099.25	\$1,426.28
1987 DODGE PICK-UP	MV	1986	27	10	9,437	4,295	\$9,990.00	\$9,490.50	\$499.50	\$21,950.72	\$20,853.18	\$1,097.54
1987 DODGE PICK-UP	MV	1986	27	10	9,437	4,295	\$9,990.00	\$9,490.50	\$499.50	\$21,950.72	\$20,853.18	\$1,097.54
(1) TON DUMP TRUCK	MV	1987	26	10	9,437	4,406	\$22,557.00	\$21,429.15	\$1,127.85	\$48,315.14	\$45,899.38	\$2,415.76
TRASH PUMPS	MV	1987	26	10	9,437	4,406	\$8,578.00	\$8,149.10	\$428.90	\$18,373.33	\$17,454.67	\$918.67
LOADER SCOOP LINE	MV	1987	26	10	9,437	4,406	\$10,000.00	\$9,500.00	\$500.00	\$21,419.13	\$20,348.18	\$1,070.96
CUSTOMER SLUDGE SWEEPER	MV	1989	24	10	9,437	4,815	\$80,500.00	\$76,475.00	\$4,025.00	\$157,777.83	\$149,888.94	\$7,888.89
1990 DIESEL DUMP TRUCK	MV	1989	24	10	9,437	4,815	\$54,967.00	\$52,218.65	\$2,748.35	\$107,733.84	\$102,347.14	\$5,386.69
1990 DIESEL DUMP TRUCK	MV	1989	24	10	9,437	4,815	\$54,967.00	\$52,218.65	\$2,748.35	\$107,733.84	\$102,347.14	\$5,386.69
ONE TON DUMP TRUCK	MV	1989	24	10	9,437	4,815	\$26,894.00	\$25,549.30	\$1,344.70	\$52,711.51	\$50,075.94	\$2,635.58
ONE TON DUMP TRUCK	MV	1989	24	10	9,437	4,815	\$26,894.00	\$25,549.30	\$1,344.70	\$52,711.51	\$50,075.94	\$2,635.58
FRONT END LOADER	MV	1990	23	10	9,437	4,732	\$95,245.00	\$90,482.75	\$4,762.25	\$189,951.98	\$180,454.38	\$9,497.60
1991 2 DOOR BLAZER	MV	1990	23	10	9,437	4,732	\$15,696.00	\$14,911.20	\$784.80	\$31,303.34	\$29,738.17	\$1,565.17
RECONDITIONED FORKLIFT	MV	1990	23	10	9,437	4,732	\$21,900.00	\$20,805.00	\$1,095.00	\$43,676.29	\$41,492.48	\$2,183.81
1988 RECONDITNED FORKLIFT	MV	1990	23	10	9,437	4,732	\$13,500.00	\$12,825.00	\$675.00	\$26,923.74	\$25,577.55	\$1,346.19
BACKHOE	MV	1997	16	10	9,437	5,825	\$60,268.00	\$57,254.60	\$3,013.40	\$97,642.13	\$92,760.02	\$4,882.11
2008 SILVERADO 1500	MV	2007	6	10	9,437	7,971	\$19,395.59	\$11,637.35	\$7,758.24	\$22,964.80	\$13,778.88	\$9,185.92
2008 SILVERADO 1500	MV	2007	6	10	9,437	7,971	\$19,395.59	\$11,637.35	\$7,758.24	\$22,964.80	\$13,778.88	\$9,185.92
2008 SILVERADO CHASSIS	MV	2007	6	10	9,437	7,971	\$36,218.60	\$21,731.16	\$14,487.44	\$42,883.61	\$25,730.17	\$17,153.44
2008 SILVERADO CHASSIS	MV	2007	6	10	9,437	7,971	\$36,218.60	\$21,731.16	\$14,487.44	\$42,883.61	\$25,730.17	\$17,153.44
LOCKERS	OEF	1980	33	15	9,437	3,237	\$7,287.00	\$6,922.65	\$364.35	\$21,244.79	\$20,182.55	\$1,062.24
LAB FURN	OEF	1980	33	15	9,437	3,237	\$22,589.00	\$21,459.55	\$1,129.45	\$65,856.81	\$62,563.97	\$3,292.84
TERMINAL & PRINTER	OEF	1982	31	5	9,437	3,825	\$9,942.00	\$9,444.90	\$497.10	\$24,529.50	\$23,303.03	\$1,226.48
POWER FILE	OEF	1983	30	5	9,437	4,056	\$9,062.00	\$8,608.90	\$453.10	\$21,084.95	\$20,030.70	\$1,054.25
POWER FILE	OEF	1984	29	5	9,437	4,146	\$12,200.00	\$11,590.00	\$610.00	\$27,770.07	\$26,381.56	\$1,388.50
STATION-PRINTER	OEF	1984	29	5	9,437	4,146	\$10,218.00	\$9,707.10	\$510.90	\$23,258.57	\$22,095.64	\$1,162.93
DISPLAY WRITER	OEF	1984	29	5	9,437	4,146	\$7,430.00	\$7,058.50	\$371.50	\$16,912.43	\$16,066.80	\$845.62
PRINTER	OEF	1985	28	5	9,437	4,195	\$6,153.00	\$5,845.35	\$307.65	\$13,842.08	\$13,149.98	\$692.10
151 LEXTRIEVER	OEF	1986	27	5	9,437	4,295	\$12,116.00	\$11,510.20	\$605.80	\$26,622.11	\$25,291.00	\$1,331.11
PERSONAL COMPUTER	OEF	1991	22	5	9,437	4,835	\$6,048.00	\$5,745.60	\$302.40	\$11,804.88	\$11,214.64	\$590.24
PERSONAL COMPUTER	OEF	1991	22	5	9,437	4,835	\$6,905.00	\$6,559.75	\$345.25	\$13,477.63	\$12,803.75	\$673.88
COPIER	OEF	1997	16	5	9,437	5,825	\$10,490.00	\$9,965.50	\$524.50	\$16,995.19	\$16,145.43	\$849.76
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$530.00	\$503.50	\$26.50	\$51,564.46	\$48,986.24	\$2,578.22
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$404.00	\$383.80	\$20.20	\$39,305.74	\$37,340.46	\$1,965.29
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$44.00	\$41.80	\$2.20	\$4,280.82	\$4,066.78	\$214.04
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$33.00	\$31.35	\$1.65	\$3,210.62	\$3,050.09	\$160.53
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$1,008.00	\$957.60	\$50.40	\$98,069.77	\$93,166.29	\$4,903.49
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$99.00	\$94.05	\$4.95	\$9,631.85	\$9,150.26	\$481.59
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$124.00	\$117.80	\$6.20	\$12,064.14	\$11,460.93	\$603.21
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$163.00	\$154.85	\$8.15	\$15,858.51	\$15,065.58	\$792.93
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$584.00	\$554.80	\$29.20	\$56,818.20	\$53,977.29	\$2,840.91

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					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$214.00	\$203.30	\$10.70	\$20,820.37	\$19,779.35	\$1,041.02
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$345.00	\$327.75	\$17.25	\$33,565.55	\$31,887.27	\$1,678.28
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$478.00	\$454.10	\$23.90	\$46,505.31	\$44,180.04	\$2,325.27
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$107.00	\$101.65	\$5.35	\$10,410.18	\$9,889.68	\$520.51
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$2,557.00	\$2,429.15	\$127.85	\$248,774.22	\$236,335.51	\$12,438.71
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$782.00	\$742.90	\$39.10	\$76,081.91	\$72,277.81	\$3,804.10
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$117.00	\$111.15	\$5.85	\$11,383.10	\$10,813.94	\$569.15
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$52.00	\$49.40	\$2.60	\$5,059.16	\$4,806.20	\$252.96
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$366.00	\$347.70	\$18.30	\$35,608.67	\$33,828.23	\$1,780.43
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$1,355.00	\$1,287.25	\$67.75	\$131,829.91	\$125,238.41	\$6,591.50
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$449.00	\$426.55	\$22.45	\$43,683.86	\$41,499.67	\$2,184.19
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$360.00	\$342.00	\$18.00	\$35,024.92	\$33,273.67	\$1,751.25
SANITARY SEWER SYSTEM SERVICE	SS	1900	113	75	9,437	97	\$951.00	\$903.45	\$47.55	\$92,524.16	\$87,897.95	\$4,626.21
SANITARY SEWER SYSTEM SERVICE	SS	1901	112	75	9,437	97	\$19.00	\$18.05	\$0.95	\$1,848.54	\$1,756.11	\$92.43
SANITARY SEWER SYSTEM SERVICE	SS	1901	112	75	9,437	97	\$837.00	\$795.15	\$41.85	\$81,432.94	\$77,361.29	\$4,071.65
SANITARY SEWER SYSTEM SERVICE	SS	1901	112	75	9,437	97	\$310.00	\$294.50	\$15.50	\$30,160.35	\$28,652.33	\$1,508.02
SANITARY SEWER SYSTEM SERVICE	SS	1903	110	75	9,437	97	\$627.00	\$595.65	\$31.35	\$61,001.73	\$57,951.65	\$3,050.09
SANITARY SEWER SYSTEM SERVICE	SS	1903	110	75	9,437	97	\$43.00	\$40.85	\$2.15	\$4,183.53	\$3,974.36	\$209.18
SANITARY SEWER SYSTEM SERVICE	SS	1904	109	75	9,437	97	\$110.00	\$104.50	\$5.50	\$10,702.06	\$10,166.96	\$535.10
SANITARY SEWER SYSTEM SERVICE	SS	1905	108	75	9,437	97	\$1,506.00	\$1,430.70	\$75.30	\$146,520.91	\$139,194.87	\$7,326.05
SANITARY SEWER SYSTEM SERVICE	SS	1905	108	75	9,437	97	\$1,500.00	\$1,425.00	\$75.00	\$145,937.16	\$138,640.31	\$7,296.86
SANITARY SEWER SYSTEM SERVICE	SS	1906	107	75	9,437	97	\$36.00	\$34.20	\$1.80	\$3,502.49	\$3,327.37	\$175.12
SANITARY SEWER SYSTEM SERVICE	SS	1907	106	75	9,437	97	\$98.00	\$93.10	\$4.90	\$9,534.56	\$9,057.83	\$476.73
SANITARY SEWER SYSTEM SERVICE	SS	1907	106	75	9,437	97	\$440.00	\$418.00	\$22.00	\$42,808.24	\$40,667.82	\$2,140.41
SANITARY SEWER SYSTEM SERVICE	SS	1909	104	75	9,437	91	\$187.00	\$177.65	\$9.35	\$19,393.07	\$18,423.42	\$969.65
SANITARY SEWER SYSTEM SERVICE	SS	1909	104	75	9,437	91	\$219.00	\$208.05	\$10.95	\$22,711.67	\$21,576.09	\$1,135.58
SANITARY SEWER SYSTEM SERVICE	SS	1909	104	75	9,437	91	\$272.00	\$258.40	\$13.60	\$28,208.10	\$26,797.70	\$1,410.41
SANITARY SEWER SYSTEM SERVICE	SS	1910	103	75	9,437	96	\$78.00	\$74.10	\$3.90	\$7,667.78	\$7,284.39	\$383.39
SANITARY SEWER SYSTEM SERVICE	SS	1911	102	75	9,437	93	\$154.00	\$146.30	\$7.70	\$15,627.31	\$14,845.94	\$781.37
SANITARY SEWER SYSTEM SERVICE	SS	1912	101	75	9,437	91	\$61.00	\$57.95	\$3.05	\$6,326.08	\$6,009.78	\$316.30
SANITARY SEWER SYSTEM SERVICE	SS	1912	101	75	9,437	91	\$143.00	\$135.85	\$7.15	\$14,830.00	\$14,088.50	\$741.50
SANITARY SEWER SYSTEM SERVICE	SS	1913	100	75	9,437	100	\$267.00	\$253.65	\$13.35	\$25,197.51	\$23,937.64	\$1,259.88
SANITARY SEWER SYSTEM SERVICE	SS	1914	99	75	9,437	89	\$288.00	\$273.60	\$14.40	\$30,538.58	\$29,011.65	\$1,526.93
SANITARY SEWER SYSTEM SERVICE	SS	1915	98	75	9,437	93	\$76.00	\$72.20	\$3.80	\$7,712.18	\$7,326.57	\$385.61
SANITARY SEWER SYSTEM SERVICE	SS	1922	91	75	9,437	174	\$2,111.00	\$2,005.45	\$105.55	\$114,494.70	\$108,769.96	\$5,724.73
SANITARY SEWER SYSTEM SERVICE	SS	1922	91	75	9,437	174	\$329.00	\$312.55	\$16.45	\$17,844.03	\$16,951.83	\$892.20
SANITARY SEWER SYSTEM SERVICE	SS	1922	91	75	9,437	174	\$88.00	\$83.60	\$4.40	\$4,772.87	\$4,534.23	\$238.64
SANITARY SEWER SYSTEM SERVICE	SS	1922	91	75	9,437	174	\$802.00	\$761.90	\$40.10	\$43,498.22	\$41,323.31	\$2,174.91
SANITARY SEWER SYSTEM SERVICE	SS	1922	91	75	9,437	174	\$949.00	\$901.55	\$47.45	\$51,471.09	\$48,897.53	\$2,573.55
SANITARY SEWER SYSTEM SERVICE	SS	1922	91	75	9,437	174	\$6,735.00	\$6,398.25	\$336.75	\$365,287.43	\$347,023.06	\$18,264.37
SANITARY SEWER SYSTEM SERVICE	SS	1922	91	75	9,437	174	\$331.00	\$314.45	\$16.55	\$17,952.51	\$17,054.88	\$897.63
SANITARY SEWER SYSTEM SERVICE	SS	1928	85	75	9,437	207	\$113.00	\$107.35	\$5.65	\$5,151.75	\$4,894.16	\$257.59
SANITARY SEWER SYSTEM SERVICE	SS	1930	83	75	9,437	203	\$283.00	\$268.85	\$14.15	\$13,156.39	\$12,498.57	\$657.82
SANITARY SEWER SYSTEM SERVICE	SS	1931	82	75	9,437	181	\$905.00	\$859.75	\$45.25	\$47,186.35	\$44,827.03	\$2,359.32
SANITARY SEWER SYSTEM SERVICE	SS	1932	81	75	9,437	157	\$3,802.00	\$3,611.90	\$190.10	\$228,538.22	\$217,111.31	\$11,426.91
SANITARY SEWER SYSTEM SERVICE	SS	1933	80	75	9,437	170	\$137.00	\$130.15	\$6.85	\$7,605.33	\$7,225.06	\$380.27
SANITARY SEWER SYSTEM SERVICE	SS	1933	80	75	9,437	170	\$112.00	\$106.40	\$5.60	\$6,217.50	\$5,906.62	\$310.87
SANITARY SEWER SYSTEM SERVICE	SS	1933	80	75	9,437	170	\$154.00	\$146.30	\$7.70	\$8,549.06	\$8,121.60	\$427.45
SANITARY SEWER SYSTEM SERVICE	SS	1933	80	75	9,437	170	\$664.00	\$630.80	\$33.20	\$36,860.87	\$35,017.82	\$1,843.04
SANITARY SEWER SYSTEM SERVICE	SS	1933	80	75	9,437	170	\$658.00	\$625.10	\$32.90	\$36,527.79	\$34,701.40	\$1,826.39
SANITARY SEWER SYSTEM SERVICE	SS	1933	80	75	9,437	170	\$3,126.00	\$2,969.70	\$156.30	\$173,534.74	\$164,858.00	\$8,676.74
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$5,547.00	\$5,269.65	\$277.35	\$267,084.37	\$253,730.15	\$13,354.22
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$9,477.00	\$9,003.15	\$473.85	\$456,311.26	\$433,495.70	\$22,815.56
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$3,387.00	\$3,217.65	\$169.35	\$163,081.80	\$154,927.71	\$8,154.09
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$4,607.00	\$4,376.65	\$230.35	\$221,823.99	\$210,732.79	\$11,091.20

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$931.00	\$884.45	\$46.55	\$44,827.03	\$42,585.68	\$2,241.35
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$11,839.00	\$11,247.05	\$591.95	\$570,040.00	\$541,538.00	\$28,502.00
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$87.00	\$82.65	\$4.35	\$4,188.99	\$3,979.54	\$209.45
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$235.00	\$223.25	\$11.75	\$11,315.09	\$10,749.34	\$565.75
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$134,427.00	\$127,705.65	\$6,721.35	\$6,472,570.89	\$6,148,942.34	\$323,628.54
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$417.00	\$396.15	\$20.85	\$20,078.27	\$19,074.36	\$1,003.91
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,234.00	\$1,172.30	\$61.70	\$59,416.28	\$56,445.47	\$2,970.81
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$2,404.00	\$2,283.80	\$120.20	\$115,751.01	\$109,963.46	\$5,787.55
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$250.00	\$237.50	\$12.50	\$12,037.33	\$11,435.47	\$601.87
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,312.00	\$1,246.40	\$65.60	\$63,171.93	\$60,013.33	\$3,158.60
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$68.00	\$64.60	\$3.40	\$3,274.15	\$3,110.45	\$163.71
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$177.00	\$168.15	\$8.85	\$8,522.43	\$8,096.31	\$426.12
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,713.00	\$1,627.35	\$85.65	\$82,479.81	\$78,355.82	\$4,123.99
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$94.00	\$89.30	\$4.70	\$4,526.04	\$4,299.74	\$226.30
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$840.00	\$798.00	\$42.00	\$40,445.44	\$38,423.17	\$2,022.27
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$725.00	\$688.75	\$36.25	\$34,908.27	\$33,162.86	\$1,745.41
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$692.00	\$657.40	\$34.60	\$33,319.34	\$31,653.37	\$1,665.97
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$407.00	\$386.65	\$20.35	\$19,596.78	\$18,616.94	\$979.84
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$39.00	\$37.05	\$1.95	\$1,877.82	\$1,783.93	\$93.89
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$2,838.00	\$2,696.10	\$141.90	\$136,647.82	\$129,815.43	\$6,832.39
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,276.00	\$1,212.20	\$63.80	\$61,438.55	\$58,366.63	\$3,071.93
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$165.00	\$156.75	\$8.25	\$7,944.64	\$7,547.41	\$397.23
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$2,149.00	\$2,041.55	\$107.45	\$103,472.92	\$98,299.28	\$5,173.65
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$44.00	\$41.80	\$2.20	\$2,118.57	\$2,012.64	\$105.93
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$308.00	\$292.60	\$15.40	\$14,830.00	\$14,088.50	\$741.50
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$449.00	\$426.55	\$22.45	\$21,619.05	\$20,538.10	\$1,080.95
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$690.00	\$655.50	\$34.50	\$33,223.04	\$31,561.89	\$1,661.15
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,009.00	\$958.55	\$50.45	\$48,582.68	\$46,153.55	\$2,429.13
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,033.00	\$981.35	\$51.65	\$49,738.26	\$47,251.35	\$2,486.91
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$547.00	\$519.65	\$27.35	\$26,337.69	\$25,020.80	\$1,316.88
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$668.00	\$634.60	\$33.40	\$32,163.76	\$30,555.57	\$1,608.19
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$93.00	\$88.35	\$4.65	\$4,477.89	\$4,253.99	\$223.89
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$484.00	\$459.80	\$24.20	\$23,304.28	\$22,139.07	\$1,165.21
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$119,568.00	\$113,589.60	\$5,978.40	\$5,757,119.89	\$5,469,263.90	\$287,855.99
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,340.00	\$1,273.00	\$67.00	\$64,520.11	\$61,294.11	\$3,226.01
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$63.00	\$59.85	\$3.15	\$3,033.41	\$2,881.74	\$151.67
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$76.00	\$72.20	\$3.80	\$3,659.35	\$3,476.38	\$182.97
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,323.00	\$1,256.85	\$66.15	\$63,701.57	\$60,516.49	\$3,185.08
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,362.00	\$1,293.90	\$68.10	\$65,579.40	\$62,300.43	\$3,278.97
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$2,084.00	\$1,979.80	\$104.20	\$100,343.22	\$95,326.06	\$5,017.16
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$8,157.00	\$7,749.15	\$407.85	\$392,754.14	\$373,116.43	\$19,637.71
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$16,305.00	\$15,489.75	\$815.25	\$785,074.94	\$745,821.19	\$39,253.75
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$3,409.00	\$3,238.55	\$170.45	\$164,141.09	\$155,934.03	\$8,207.05
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$1,277.00	\$1,213.15	\$63.85	\$61,486.70	\$58,412.37	\$3,074.34
SANITARY SEWER SYSTEM SERVICE	SS	1935	78	75	9,437	196	\$24,777.00	\$23,538.15	\$1,238.85	\$1,192,996.12	\$1,133,346.31	\$59,649.81
SANITARY SEWER SYSTEM SERVICE	SS	1936	77	75	9,437	206	\$343.00	\$325.85	\$17.15	\$15,713.51	\$14,927.84	\$785.68
SANITARY SEWER SYSTEM SERVICE	SS	1937	76	75	9,437	235	\$494.00	\$469.30	\$24.70	\$19,838.35	\$18,846.43	\$991.92
SANITARY SEWER SYSTEM SERVICE	SS	1937	76	75	9,437	235	\$563.00	\$534.85	\$28.15	\$22,609.29	\$21,478.82	\$1,130.46
SANITARY SEWER SYSTEM SERVICE	SS	1938	75	75	9,437	236	\$29,388.00	\$27,918.60	\$1,469.40	\$1,175,180.05	\$1,116,421.04	\$58,759.00
SANITARY SEWER SYSTEM SERVICE	SS	1938	75	75	9,437	236	\$1,575.00	\$1,496.25	\$78.75	\$62,981.78	\$59,832.69	\$3,149.09
SANITARY SEWER SYSTEM SERVICE	SS	1938	75	75	9,437	236	\$305.00	\$289.75	\$15.25	\$12,196.47	\$11,586.65	\$609.82
SANITARY SEWER SYSTEM SERVICE	SS	1938	75	75	9,437	236	\$3,296.00	\$3,131.20	\$164.80	\$131,801.87	\$125,211.78	\$6,590.09
SANITARY SEWER SYSTEM SERVICE	SS	1938	75	75	9,437	236	\$846.00	\$803.70	\$42.30	\$33,830.21	\$32,138.70	\$1,691.51
SANITARY SEWER SYSTEM SERVICE	SS	1938	75	75	9,437	236	\$493.00	\$468.35	\$24.65	\$19,714.30	\$18,728.58	\$985.71
SANITARY SEWER SYSTEM SERVICE	SS	1938	75	75	9,437	236	\$116.00	\$110.20	\$5.80	\$4,638.66	\$4,406.73	\$231.93

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
SANITARY SEWER SYSTEM SERVICE	SS	1938	75	75	9,437	236	\$531.00	\$504.45	\$26.55	\$21,233.86	\$20,172.16	\$1,061.69
SANITARY SEWER SYSTEM SERVICE	SS	1938	75	75	9,437	236	\$211.00	\$200.45	\$10.55	\$8,437.56	\$8,015.68	\$421.88
SANITARY SEWER SYSTEM SERVICE	SS	1940	73	75	9,437	242	\$338.00	\$321.10	\$16.90	\$13,180.98	\$12,521.93	\$659.05
SANITARY SEWER SYSTEM SERVICE	SS	1940	73	75	9,437	242	\$717.00	\$681.15	\$35.85	\$27,960.84	\$26,562.80	\$1,398.04
SANITARY SEWER SYSTEM SERVICE	SS	1940	73	75	9,437	242	\$556.00	\$528.20	\$27.80	\$21,682.32	\$20,598.21	\$1,084.12
SANITARY SEWER SYSTEM SERVICE	SS	1940	73	75	9,437	242	\$13,400.00	\$12,730.00	\$670.00	\$522,559.58	\$496,431.60	\$26,127.98
SANITARY SEWER SYSTEM SERVICE	SS	1940	73	75	9,437	242	\$353.00	\$335.35	\$17.65	\$13,765.94	\$13,077.64	\$688.30
SANITARY SEWER SYSTEM SERVICE	SS	1942	71	75	9,437	276	\$69.00	\$65.32	\$3.68	\$2,359.32	\$2,233.49	\$125.83
SANITARY SEWER SYSTEM SERVICE	SS	1947	66	75	9,437	413	\$2,249.00	\$1,979.12	\$269.88	\$51,390.85	\$45,223.95	\$6,166.90
SANITARY SEWER SYSTEM SERVICE	SS	1947	66	75	9,437	413	\$426.00	\$374.88	\$51.12	\$9,734.33	\$8,566.21	\$1,168.12
SANITARY SEWER SYSTEM SERVICE	SS	1949	64	75	9,437	477	\$70.00	\$59.73	\$10.27	\$1,384.92	\$1,181.80	\$203.12
SANITARY SEWER SYSTEM SERVICE	SS	1950	63	75	9,437	510	\$1,047.00	\$879.48	\$167.52	\$19,374.16	\$16,274.29	\$3,099.87
SANITARY SEWER SYSTEM SERVICE	SS	1951	62	75	9,437	543	\$3,699.00	\$3,057.84	\$641.16	\$64,288.14	\$53,144.87	\$11,143.28
SANITARY SEWER SYSTEM SERVICE	SS	1952	61	75	9,437	569	\$1,033.00	\$840.17	\$192.83	\$17,133.04	\$13,934.87	\$3,198.17
SANITARY SEWER SYSTEM SERVICE	SS	1952	61	75	9,437	569	\$5,338.00	\$4,341.57	\$996.43	\$88,534.53	\$72,008.08	\$16,526.45
SANITARY SEWER SYSTEM SERVICE	SS	1952	61	75	9,437	569	\$854.00	\$694.59	\$159.41	\$14,164.20	\$11,520.21	\$2,643.98
SANITARY SEWER SYSTEM SERVICE	SS	1956	57	75	9,437	692	\$2,253.00	\$1,712.28	\$540.72	\$30,725.68	\$23,351.52	\$7,374.16
SANITARY SEWER SYSTEM SERVICE	SS	1957	56	75	9,437	724	\$385.00	\$287.47	\$97.53	\$5,018.44	\$3,747.10	\$1,271.34
SANITARY SEWER SYSTEM SERVICE	SS	1957	56	75	9,437	724	\$1,407.00	\$1,050.56	\$356.44	\$18,340.11	\$13,693.95	\$4,646.16
SANITARY SEWER SYSTEM SERVICE	SS	1959	54	75	9,437	797	\$5,345.00	\$3,848.40	\$1,496.60	\$63,290.10	\$45,568.87	\$17,721.23
SANITARY SEWER SYSTEM SERVICE	SS	1959	54	75	9,437	797	\$1,297.00	\$933.84	\$363.16	\$15,357.77	\$11,057.59	\$4,300.17
SANITARY SEWER SYSTEM SERVICE	SS	1960	53	75	9,437	824	\$844.00	\$596.43	\$247.57	\$9,666.33	\$6,830.87	\$2,835.46
SANITARY SEWER SYSTEM SERVICE	SS	1961	52	75	9,437	847	\$950.00	\$658.67	\$291.33	\$10,584.90	\$7,338.86	\$3,246.03
SANITARY SEWER SYSTEM SERVICE	SS	1962	51	75	9,437	872	\$1,015.00	\$690.20	\$324.80	\$10,984.90	\$7,469.73	\$3,515.17
SANITARY SEWER SYSTEM SERVICE	SS	1964	49	75	9,437	936	\$2,335.00	\$1,525.53	\$809.47	\$23,542.76	\$15,381.27	\$8,161.49
SANITARY SEWER SYSTEM SERVICE	SS	1964	49	75	9,437	936	\$1,444.00	\$943.41	\$500.59	\$14,559.21	\$9,512.02	\$5,047.19
SANITARY SEWER SYSTEM SERVICE	SS	1964	49	75	9,437	936	\$909.00	\$593.88	\$315.12	\$9,165.04	\$5,987.83	\$3,177.21
SANITARY SEWER SYSTEM SERVICE	SS	1964	49	75	9,437	936	\$2,602.00	\$1,699.97	\$902.03	\$26,234.80	\$17,140.07	\$9,094.73
SANITARY SEWER SYSTEM SERVICE	SS	1965	48	75	9,437	971	\$625.00	\$400.00	\$225.00	\$6,074.45	\$3,887.65	\$2,186.80
SANITARY SEWER SYSTEM SERVICE	SS	1965	48	75	9,437	971	\$4,054.00	\$2,594.56	\$1,459.44	\$39,401.33	\$25,216.85	\$14,184.48
SANITARY SEWER SYSTEM SERVICE	SS	1967	46	75	9,437	1,074	\$1,198.00	\$734.77	\$463.23	\$10,526.86	\$6,456.48	\$4,070.39
SANITARY SEWER SYSTEM SERVICE	SS	1967	46	75	9,437	1,074	\$1,578.00	\$967.84	\$610.16	\$13,865.93	\$8,504.44	\$5,361.49
SANITARY SEWER SYSTEM SERVICE	SS	1967	46	75	9,437	1,074	\$1,168.00	\$716.37	\$451.63	\$10,263.25	\$6,294.79	\$3,968.46
SANITARY SEWER SYSTEM SERVICE	SS	1972	41	75	9,437	1,753	\$2,396.00	\$1,309.81	\$1,086.19	\$12,898.86	\$7,051.38	\$5,847.48
SANITARY SEWER SYSTEM SERVICE	SS	1974	39	75	9,437	2,020	\$12,129.00	\$6,307.08	\$5,821.92	\$56,665.67	\$29,466.15	\$27,199.52
SANITARY SEWER SYSTEM SERVICE	SS	1979	34	75	9,437	3,003	\$992.00	\$449.71	\$542.29	\$3,117.47	\$1,413.25	\$1,704.22
SANITARY SEWER SYSTEM SERVICE	SS	1981	32	75	9,437	3,535	\$7,404.00	\$3,159.04	\$4,244.96	\$19,766.21	\$8,433.58	\$11,332.63
SANITARY SEWER SYSTEM SERVICE	SS	1985	28	75	9,437	4,195	\$4,178.00	\$1,559.79	\$2,618.21	\$9,399.03	\$3,508.97	\$5,890.06
SANITARY SEWER SYSTEM SERVICE	SS	1985	28	75	9,437	4,195	\$5,938.00	\$2,216.85	\$3,721.15	\$13,358.41	\$4,987.14	\$8,371.27
SANITARY SEWER SYSTEM SERVICE	SS	1989	24	75	9,437	4,815	\$11,902.00	\$3,808.64	\$8,093.36	\$23,327.60	\$7,464.83	\$15,862.77
SANITARY SEWER SYSTEM SERVICE	SS	1989	24	75	9,437	4,815	\$7,439.00	\$2,380.48	\$5,058.52	\$14,580.24	\$4,665.68	\$9,914.56
SANITARY SEWER SYSTEM SERVICE	SS	1992	21	75	9,437	4,985	\$17,630.00	\$4,936.40	\$12,693.60	\$33,375.94	\$9,345.26	\$24,030.68
SANITARY SEWER SYSTEM SERVICE	SS	1992	21	75	9,437	4,985	\$1,850.00	\$518.00	\$1,332.00	\$3,502.30	\$980.64	\$2,521.65
SANITARY SEWER SYSTEM SERVICE	SS	1993	20	75	9,437	5,210	\$2,067.00	\$551.20	\$1,515.80	\$3,744.11	\$998.43	\$2,745.68
SANITARY SEWER SYSTEM SERVICE	SS	1993	20	75	9,437	5,210	\$6,348.00	\$1,692.80	\$4,655.20	\$11,498.62	\$3,066.30	\$8,432.32
SANITARY SEWER SYSTEM SERVICE	SS	1993	20	75	9,437	5,210	\$1,212.00	\$323.20	\$888.80	\$2,195.39	\$585.44	\$1,609.95
SANITARY SEWER SYSTEM SERVICE	SS	1993	20	75	9,437	5,210	\$6,825.00	\$1,820.00	\$5,005.00	\$12,362.64	\$3,296.70	\$9,065.94
SANITARY SEWER SYSTEM SERVICE	SS	2000	13	75	9,437	6,221	\$58,426.00	\$10,127.17	\$48,298.83	\$88,632.36	\$15,362.94	\$73,269.42
SANITARY SEWER SYSTEM SERVICE	SS	2002	11	75	9,437	6,538	\$8,525.00	\$1,250.33	\$7,274.67	\$12,305.40	\$1,804.79	\$10,500.61
STORMWATER SEWER SYSTEM INLET	SSW	1900	113	75	9,437	97	\$403.00	\$382.85	\$20.15	\$39,208.45	\$37,248.03	\$1,960.42
STORMWATER SEWER SYSTEM INLET	SSW	1900	113	75	9,437	97	\$375.00	\$356.25	\$18.75	\$36,484.29	\$34,660.08	\$1,824.21
COMB. SANITARY & STORM INLET	SC	1900	113	75	9,437	97	\$115.00	\$109.25	\$5.75	\$11,188.52	\$10,629.09	\$559.43
COMB. SANITARY & STORM INLET	SC	1900	113	75	9,437	97	\$576.00	\$547.20	\$28.80	\$56,039.87	\$53,237.88	\$2,801.99
STORMWATER SEWER SYSTEM INLET	SSW	1902	111	75	9,437	97	\$1,327.00	\$1,260.65	\$66.35	\$129,105.75	\$122,650.46	\$6,455.29
COMB. SANITARY & STORM INLET	SC	1902	111	75	9,437	97	\$1,209.00	\$1,148.55	\$60.45	\$117,625.35	\$111,744.09	\$5,881.27

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMB. SANITARY & STORM INLET	SC	1903	110	75	9,437	97	\$1,341.00	\$1,273.95	\$67.05	\$130,467.83	\$123,944.43	\$6,523.39
STORMWATER SEWER SYSTEM INLET	SSW	1903	110	75	9,437	97	\$1,341.00	\$1,273.95	\$67.05	\$130,467.83	\$123,944.43	\$6,523.39
STORMWATER SEWER SYSTEM INLET	SSW	1904	109	75	9,437	97	\$4,592.00	\$4,362.40	\$229.60	\$446,762.31	\$424,424.19	\$22,338.12
COMB. SANITARY & STORM INLET	SC	1904	109	75	9,437	97	\$1,880.00	\$1,786.00	\$94.00	\$182,907.91	\$173,762.52	\$9,145.40
COMB. SANITARY & STORM INLET	SC	1905	108	75	9,437	97	\$1,067.00	\$1,013.65	\$53.35	\$103,809.97	\$98,619.47	\$5,190.50
STORMWATER SEWER SYSTEM INLET	SSW	1905	108	75	9,437	97	\$2,835.00	\$2,693.25	\$141.75	\$275,821.24	\$262,030.18	\$13,791.06
STORMWATER SEWER SYSTEM INLET	SSW	1906	107	75	9,437	97	\$1,963.00	\$1,864.85	\$98.15	\$190,983.10	\$181,433.95	\$9,549.16
COMB. SANITARY & STORM INLET	SC	1906	107	75	9,437	97	\$623.00	\$591.85	\$31.15	\$60,612.57	\$57,581.94	\$3,030.63
COMB. SANITARY & STORM INLET	SC	1907	106	75	9,437	97	\$3,477.00	\$3,303.15	\$173.85	\$338,282.35	\$321,368.23	\$16,914.12
STORMWATER SEWER SYSTEM INLET	SSW	1907	106	75	9,437	97	\$7,506.00	\$7,130.70	\$375.30	\$730,269.57	\$693,756.09	\$36,513.48
STORMWATER SEWER SYSTEM INLET	SSW	1908	105	75	9,437	97	\$859.00	\$816.05	\$42.95	\$83,573.35	\$79,394.68	\$4,178.67
COMB. SANITARY & STORM INLET	SC	1908	105	75	9,437	97	\$2,100.00	\$1,995.00	\$105.00	\$204,312.03	\$194,096.43	\$10,215.60
COMB. SANITARY & STORM INLET	SC	1909	104	75	9,437	91	\$1,184.00	\$1,124.80	\$59.20	\$122,788.22	\$116,648.81	\$6,139.41
STORMWATER SEWER SYSTEM INLET	SSW	1909	104	75	9,437	91	\$1,589.00	\$1,509.55	\$79.45	\$164,789.25	\$156,549.79	\$8,239.46
STORMWATER SEWER SYSTEM INLET	SSW	1910	103	75	9,437	96	\$3,381.00	\$3,211.95	\$169.05	\$332,368.85	\$315,750.41	\$16,618.44
COMB. SANITARY & STORM INLET	SC	1910	103	75	9,437	96	\$33.00	\$31.35	\$1.65	\$3,244.06	\$3,081.86	\$162.20
COMB. SANITARY & STORM INLET	SC	1911	102	75	9,437	93	\$492.00	\$467.40	\$24.60	\$49,926.20	\$47,429.89	\$2,496.31
STORMWATER SEWER SYSTEM INLET	SSW	1911	102	75	9,437	93	\$1,412.00	\$1,341.40	\$70.60	\$143,284.14	\$136,119.94	\$7,164.21
STORMWATER SEWER SYSTEM INLET	SSW	1912	101	75	9,437	91	\$2,177.00	\$2,068.15	\$108.85	\$225,768.54	\$214,480.11	\$11,288.43
COMB. SANITARY & STORM INLET	SC	1912	101	75	9,437	91	\$770.00	\$731.50	\$38.50	\$79,853.82	\$75,861.13	\$3,992.69
COMB. SANITARY & STORM INLET	SC	1913	100	75	9,437	100	\$1,787.00	\$1,697.65	\$89.35	\$168,644.01	\$160,211.81	\$8,432.20
STORMWATER SEWER SYSTEM INLET	SSW	1913	100	75	9,437	100	\$3,089.00	\$2,934.55	\$154.45	\$291,517.27	\$276,941.41	\$14,575.86
STORMWATER SEWER SYSTEM INLET	SSW	1914	99	75	9,437	89	\$2,144.00	\$2,036.80	\$107.20	\$227,342.77	\$215,975.64	\$11,367.14
COMB. SANITARY & STORM INLET	SC	1914	99	75	9,437	89	\$864.00	\$820.80	\$43.20	\$91,615.74	\$87,034.96	\$4,580.79
COMB. SANITARY & STORM INLET	SC	1915	98	75	9,437	93	\$603.00	\$572.85	\$30.15	\$61,190.04	\$58,130.54	\$3,059.50
STORMWATER SEWER SYSTEM INLET	SSW	1915	98	75	9,437	93	\$2,780.00	\$2,641.00	\$139.00	\$282,103.34	\$267,998.17	\$14,105.17
STORMWATER SEWER SYSTEM INLET	SSW	1916	97	75	9,437	130	\$4,340.00	\$4,123.00	\$217.00	\$315,059.63	\$299,306.65	\$15,752.98
COMB. SANITARY & STORM INLET	SC	1916	97	75	9,437	130	\$819.00	\$778.05	\$40.95	\$59,454.80	\$56,482.06	\$2,972.74
STORMWATER SEWER SYSTEM INLET	SSW	1918	95	75	9,437	189	\$12,022.00	\$11,420.90	\$601.10	\$600,290.26	\$570,275.75	\$30,014.51
COMB. SANITARY & STORM INLET	SC	1918	95	75	9,437	189	\$1,061.00	\$1,007.95	\$53.05	\$52,978.54	\$50,329.61	\$2,648.93
STORMWATER SEWER SYSTEM INLET	SSW	1926	87	75	9,437	208	\$7,269.00	\$6,905.55	\$363.45	\$329,805.36	\$313,315.10	\$16,490.27
COMB. SANITARY & STORM INLET	SC	1926	87	75	9,437	208	\$7,895.00	\$7,500.25	\$394.75	\$358,207.92	\$340,297.52	\$17,910.40
COMB. SANITARY & STORM INLET	SC	1927	86	75	9,437	206	\$28,217.00	\$26,806.15	\$1,410.85	\$1,292,676.93	\$1,228,043.08	\$64,633.85
STORMWATER SEWER SYSTEM INLET	SSW	1927	86	75	9,437	206	\$23,371.00	\$22,202.45	\$1,168.55	\$1,070,672.03	\$1,017,138.42	\$53,533.60
STORMWATER SEWER SYSTEM INLET	SSW	1931	82	75	9,437	181	\$2,084.00	\$1,979.80	\$104.20	\$108,658.95	\$103,226.01	\$5,432.95
COMB. SANITARY & STORM INLET	SC	1931	82	75	9,437	181	\$596.00	\$566.20	\$29.80	\$31,075.21	\$29,521.45	\$1,553.76
STORMWATER SEWER SYSTEM INLET	SSW	1935	78	75	9,437	196	\$5,940.00	\$5,643.00	\$297.00	\$286,007.06	\$271,706.71	\$14,300.35
COMB. SANITARY & STORM INLET	SC	1935	78	75	9,437	196	\$3,960.00	\$3,762.00	\$198.00	\$190,671.37	\$181,137.80	\$9,533.57
COMB. SANITARY & STORM INLET	SC	1936	77	75	9,437	206	\$3,573.00	\$3,394.35	\$178.65	\$163,686.24	\$155,501.93	\$8,184.31
STORMWATER SEWER SYSTEM INLET	SSW	1936	77	75	9,437	206	\$4,169.00	\$3,960.55	\$208.45	\$190,990.19	\$181,440.68	\$9,549.51
STORMWATER SEWER SYSTEM INLET	SSW	1937	76	75	9,437	235	\$18,916.00	\$17,970.20	\$945.80	\$759,640.00	\$721,658.00	\$37,982.00
COMB. SANITARY & STORM INLET	SC	1937	76	75	9,437	235	\$5,784.00	\$5,494.80	\$289.20	\$232,277.32	\$220,663.45	\$11,613.87
COMB. SANITARY & STORM INLET	SC	1938	75	75	9,437	236	\$2,129.00	\$2,022.55	\$106.45	\$85,135.37	\$80,878.60	\$4,256.77
STORMWATER SEWER SYSTEM INLET	SSW	1938	75	75	9,437	236	\$1,310.00	\$1,244.50	\$65.50	\$52,384.85	\$49,765.60	\$2,619.24
COMB. SANITARY & STORM INLET	SC	1940	73	75	9,437	242	\$2,397.00	\$2,277.15	\$119.85	\$93,475.77	\$88,801.98	\$4,673.79
STORMWATER SEWER SYSTEM INLET	SSW	1940	73	75	9,437	242	\$3,339.00	\$3,172.05	\$166.95	\$130,210.93	\$123,700.38	\$6,510.55
STORMWATER SEWER SYSTEM INLET	SSW	1942	71	75	9,437	276	\$5,628.00	\$5,327.84	\$300.16	\$192,438.24	\$182,174.87	\$10,263.37
COMB. SANITARY & STORM INLET	SC	1942	71	75	9,437	276	\$2,055.00	\$1,945.40	\$109.60	\$70,266.63	\$66,519.08	\$3,747.55
COMB. SANITARY & STORM INLET	SC	1943	70	75	9,437	290	\$931.00	\$868.93	\$62.07	\$30,296.89	\$28,277.10	\$2,019.79
STORMWATER SEWER SYSTEM INLET	SSW	1943	70	75	9,437	290	\$4,932.00	\$4,603.20	\$328.80	\$160,498.67	\$149,798.76	\$10,699.91
STORMWATER SEWER SYSTEM INLET	SSW	1944	69	75	9,437	299	\$1,768.00	\$1,626.56	\$141.44	\$55,802.99	\$51,338.75	\$4,464.24
STORMWATER SEWER SYSTEM INLET	SSW	1947	66	75	9,437	413	\$1,172.00	\$1,031.36	\$140.64	\$26,780.82	\$23,567.13	\$3,213.70
COMB. SANITARY & STORM INLET	SC	1947	66	75	9,437	413	\$6,383.00	\$5,617.04	\$765.96	\$145,854.95	\$128,352.36	\$17,502.59
COMB. SANITARY & STORM INLET	SC	1948	65	75	9,437	461	\$610.00	\$528.67	\$81.33	\$12,487.49	\$10,822.49	\$1,665.00
STORMWATER SEWER SYSTEM INLET	SSW	1948	65	75	9,437	461	\$153.00	\$132.60	\$20.40	\$3,132.11	\$2,714.49	\$417.61

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
STORMWATER SEWER SYSTEM INLET	SSW	1952	61	75	9,437	569	\$700.00	\$569.33	\$130.67	\$11,610.00	\$9,442.80	\$2,167.20
COMB. SANITARY & STORM INLET	SC	1952	61	75	9,437	569	\$350.00	\$284.67	\$65.33	\$5,805.00	\$4,721.40	\$1,083.60
COMB. SANITARY & STORM INLET	SC	1953	60	75	9,437	600	\$179.00	\$143.20	\$35.80	\$2,815.45	\$2,252.36	\$563.09
STORMWATER SEWER SYSTEM INLET	SSW	1953	60	75	9,437	600	\$179.00	\$143.20	\$35.80	\$2,815.45	\$2,252.36	\$563.09
STORMWATER SEWER SYSTEM INLET	SSW	1955	58	75	9,437	660	\$6,904.00	\$5,339.09	\$1,564.91	\$98,719.56	\$76,343.13	\$22,376.43
COMB. SANITARY & STORM INLET	SC	1955	58	75	9,437	660	\$4,143.00	\$3,203.92	\$939.08	\$59,240.32	\$45,812.51	\$13,427.81
COMB. SANITARY & STORM INLET	SC	1958	55	75	9,437	759	\$3,517.00	\$2,579.13	\$937.87	\$43,729.75	\$32,068.48	\$11,661.27
STORMWATER SEWER SYSTEM INLET	SSW	1958	55	75	9,437	759	\$3,986.00	\$2,923.07	\$1,062.93	\$49,561.21	\$36,344.89	\$13,216.32
STORMWATER SEWER SYSTEM INLET	SSW	1959	54	75	9,437	797	\$1,935.00	\$1,393.20	\$541.80	\$22,912.32	\$16,496.87	\$6,415.45
COMB. SANITARY & STORM INLET	SC	1959	54	75	9,437	797	\$1,694.00	\$1,219.68	\$474.32	\$20,058.64	\$14,442.22	\$5,616.42
COMB. SANITARY & STORM INLET	SC	1960	53	75	9,437	824	\$5,821.00	\$4,113.51	\$1,707.49	\$66,667.90	\$47,111.98	\$19,555.92
STORMWATER SEWER SYSTEM INLET	SSW	1960	53	75	9,437	824	\$9,871.00	\$6,975.51	\$2,895.49	\$113,052.54	\$79,890.46	\$33,162.08
STORMWATER SEWER SYSTEM INLET	SSW	1961	52	75	9,437	847	\$33,901.00	\$23,504.69	\$10,396.31	\$377,724.78	\$261,889.18	\$115,835.60
COMB. SANITARY & STORM INLET	SC	1961	52	75	9,437	847	\$6,164.00	\$4,273.71	\$1,890.29	\$68,679.26	\$47,617.62	\$21,061.64
COMB. SANITARY & STORM INLET	SC	1962	51	75	9,437	872	\$1,850.00	\$1,258.00	\$592.00	\$20,021.73	\$13,614.78	\$6,406.95
STORMWATER SEWER SYSTEM INLET	SSW	1962	51	75	9,437	872	\$7,664.00	\$5,211.52	\$2,452.48	\$82,944.08	\$56,401.97	\$26,542.11
COMB. SANITARY & STORM INLET	SC	1964	49	75	9,437	936	\$4,347.00	\$2,840.04	\$1,506.96	\$43,828.86	\$28,634.86	\$15,194.00
STORMWATER SEWER SYSTEM INLET	SSW	1964	49	75	9,437	936	\$7,065.00	\$4,615.80	\$2,449.20	\$71,233.24	\$46,539.05	\$24,694.19
STORMWATER SEWER SYSTEM INLET	SSW	1965	48	75	9,437	971	\$10,742.00	\$6,874.88	\$3,867.12	\$104,402.84	\$66,817.82	\$37,585.02
COMB. SANITARY & STORM INLET	SC	1965	48	75	9,437	971	\$826.00	\$528.64	\$297.36	\$8,028.00	\$5,137.92	\$2,890.08
COMB. SANITARY & STORM INLET	SC	1966	47	75	9,437	1,019	\$6,141.00	\$3,848.36	\$2,292.64	\$56,873.68	\$35,640.84	\$21,232.84
STORMWATER SEWER SYSTEM INLET	SSW	1966	47	75	9,437	1,019	\$2,512.00	\$1,574.19	\$937.81	\$23,264.40	\$14,579.02	\$8,685.38
STORMWATER SEWER SYSTEM INLET	SSW	1967	46	75	9,437	1,074	\$3,112.00	\$1,908.69	\$1,203.31	\$27,345.24	\$16,771.75	\$10,573.49
COMB. SANITARY & STORM INLET	SC	1967	46	75	9,437	1,074	\$2,829.00	\$1,735.12	\$1,093.88	\$24,858.51	\$15,246.55	\$9,611.96
COMB. SANITARY & STORM INLET	SC	1968	45	75	9,437	1,155	\$573.00	\$343.80	\$229.20	\$4,681.87	\$2,809.12	\$1,872.75
STORMWATER SEWER SYSTEM INLET	SSW	1968	45	75	9,437	1,155	\$12,897.00	\$7,738.20	\$5,158.80	\$105,378.76	\$63,227.26	\$42,151.51
STORMWATER SEWER SYSTEM INLET	SSW	1969	44	75	9,437	1,269	\$5,360.00	\$3,144.53	\$2,215.47	\$39,861.12	\$23,385.19	\$16,475.93
COMB. SANITARY & STORM INLET	SC	1969	44	75	9,437	1,269	\$3,871.00	\$2,270.99	\$1,600.01	\$28,787.76	\$16,888.82	\$11,898.94
COMB. SANITARY & STORM INLET	SC	1970	43	75	9,437	1,381	\$4,377.00	\$2,509.48	\$1,867.52	\$29,910.88	\$17,148.91	\$12,761.98
STORMWATER SEWER SYSTEM INLET	SSW	1970	43	75	9,437	1,381	\$9,380.00	\$5,377.87	\$4,002.13	\$64,099.63	\$36,750.46	\$27,349.18
STORMWATER SEWER SYSTEM INLET	SSW	1971	42	75	9,437	1,581	\$33,588.00	\$18,809.28	\$14,778.72	\$200,492.74	\$112,275.94	\$88,216.81
COMB. SANITARY & STORM INLET	SC	1971	42	75	9,437	1,581	\$5,598.00	\$3,134.88	\$2,463.12	\$33,415.46	\$18,712.66	\$14,702.80
COMB. SANITARY & STORM INLET	SC	1972	41	75	9,437	1,753	\$7,660.00	\$4,187.47	\$3,472.53	\$41,237.59	\$22,543.21	\$18,694.37
STORMWATER SEWER SYSTEM INLET	SSW	1972	41	75	9,437	1,753	\$12,767.00	\$6,979.29	\$5,787.71	\$68,731.10	\$37,573.00	\$31,158.10
STORMWATER SEWER SYSTEM INLET	SSW	1973	40	75	9,437	1,895	\$33,127.00	\$17,667.73	\$15,459.27	\$164,975.43	\$87,986.90	\$76,988.53
COMB. SANITARY & STORM INLET	SC	1973	40	75	9,437	1,895	\$4,839.00	\$2,580.80	\$2,258.20	\$24,098.65	\$12,852.62	\$11,246.04
COMB. SANITARY & STORM INLET	SC	1974	39	75	9,437	2,020	\$12,692.00	\$6,599.84	\$6,092.16	\$59,295.96	\$30,833.90	\$28,462.06
STORMWATER SEWER SYSTEM INLET	SSW	1974	39	75	9,437	2,020	\$9,826.00	\$5,109.52	\$4,716.48	\$45,906.25	\$23,871.25	\$22,035.00
STORMWATER SEWER SYSTEM INLET	SSW	1975	38	75	9,437	2,212	\$33,692.00	\$17,070.61	\$16,621.39	\$143,743.45	\$72,830.01	\$70,913.43
COMB. SANITARY & STORM INLET	SC	1975	38	75	9,437	2,212	\$10,325.00	\$5,231.33	\$5,093.67	\$44,050.55	\$22,318.94	\$21,731.60
COMB. SANITARY & STORM INLET	SC	1976	37	75	9,437	2,401	\$8,025.00	\$3,959.00	\$4,066.00	\$31,542.73	\$15,561.08	\$15,981.65
STORMWATER SEWER SYSTEM INLET	SSW	1976	37	75	9,437	2,401	\$9,744.00	\$4,807.04	\$4,936.96	\$38,299.36	\$18,894.35	\$19,405.01
STORMWATER SEWER SYSTEM INLET	SSW	1977	36	75	9,437	2,576	\$8,442.00	\$4,052.16	\$4,389.84	\$30,927.58	\$14,845.24	\$16,082.34
COMB. SANITARY & STORM INLET	SC	1977	36	75	9,437	2,576	\$21,707.00	\$10,419.36	\$11,287.64	\$79,524.39	\$38,171.71	\$41,352.68
COMB. SANITARY & STORM INLET	SC	1978	35	75	9,437	2,776	\$6,439.00	\$3,004.87	\$3,434.13	\$21,889.98	\$10,215.32	\$11,674.66
STORMWATER SEWER SYSTEM INLET	SSW	1978	35	75	9,437	2,776	\$14,810.00	\$6,911.33	\$7,898.67	\$50,347.97	\$23,495.72	\$26,852.25
STORMWATER SEWER SYSTEM INLET	SSW	1979	34	75	9,437	3,003	\$16,526.00	\$7,491.79	\$9,034.21	\$51,934.84	\$23,543.79	\$28,391.05
COMB. SANITARY & STORM INLET	SC	1979	34	75	9,437	3,003	\$4,132.00	\$1,873.17	\$2,258.83	\$12,985.28	\$5,886.66	\$7,098.62
STORMWATER SEWER SYSTEM INLET	SSW	1981	32	75	9,437	3,535	\$815.00	\$347.73	\$467.27	\$2,175.78	\$928.33	\$1,247.45
STORMWATER SEWER SYSTEM INLET	SSW	1983	30	75	9,437	4,056	\$14,233.00	\$5,693.20	\$8,539.80	\$33,116.53	\$13,246.61	\$19,869.92
COMB. SANITARY & STORM INLET	SC	1983	30	75	9,437	4,056	\$14,233.00	\$5,693.20	\$8,539.80	\$33,116.53	\$13,246.61	\$19,869.92
COMB. SANITARY & STORM INLET	SC	1984	29	75	9,437	4,146	\$2,725.00	\$1,053.67	\$1,671.33	\$6,202.74	\$2,398.39	\$3,804.35
STORMWATER SEWER SYSTEM INLET	SSW	1984	29	75	9,437	4,146	\$29,970.00	\$11,588.40	\$18,381.60	\$68,218.76	\$26,377.92	\$41,840.84
STORMWATER SEWER SYSTEM INLET	SSW	1988	25	75	9,437	4,519	\$4,169.00	\$1,389.67	\$2,779.33	\$8,706.35	\$2,902.12	\$5,804.23
COMB. SANITARY & STORM INLET	SC	1988	25	75	9,437	4,519	\$8,337.00	\$2,779.00	\$5,558.00	\$17,410.60	\$5,803.53	\$11,607.07

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjsted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
STORMWATER SEWER SYSTEM INLET	SSW	1990	23	75	9,437	4,732	\$10,083.00	\$3,092.12	\$6,990.88	\$20,109.04	\$6,166.77	\$13,942.27
STORMWATER SEWER SYSTEM INLET	SSW	1991	22	75	9,437	4,835	\$12,569.00	\$3,686.91	\$8,882.09	\$24,533.00	\$7,196.35	\$17,336.65
STORMWATER SEWER SYSTEM INLET	SSW	1992	21	75	9,437	4,985	\$5,788.00	\$1,620.64	\$4,167.36	\$10,957.46	\$3,068.09	\$7,889.37
STORMWATER SEWER SYSTEM INLET	SSW	1993	20	75	9,437	5,210	\$23,896.00	\$6,372.27	\$17,523.73	\$43,284.65	\$11,542.57	\$31,742.07
STORMWATER SEWER SYSTEM INLET	SSW	1995	18	75	9,437	5,471	\$1,236.00	\$296.64	\$939.36	\$2,132.05	\$511.69	\$1,620.36
STORMWATER SEWER SYSTEM INLET	SSW	1997	16	75	9,437	5,825	\$3,875.00	\$826.67	\$3,048.33	\$6,278.01	\$1,339.31	\$4,938.70
COMB. SANITARY & STORM INLET	SC	1997	16	75	9,437	5,825	\$2,583.00	\$551.04	\$2,031.96	\$4,184.80	\$892.76	\$3,292.04
COMB. SANITARY & STORM INLET	SC	2000	13	75	9,437	6,221	\$1,403.00	\$243.19	\$1,159.81	\$2,128.35	\$368.91	\$1,759.44
STORMWATER SEWER SYSTEM INLET	SSW	2002	11	75	9,437	6,538	\$1,504.00	\$220.59	\$1,283.41	\$2,170.95	\$318.41	\$1,852.54
COMB. SANITARY & STORM MANHOLE	SC	1902	111	75	9,437	97	\$177.00	\$168.15	\$8.85	\$17,220.59	\$16,359.56	\$861.03
MANHOLES	SS	1903	110	75	9,437	97	\$50.00	\$47.50	\$2.50	\$4,864.57	\$4,621.34	\$243.23
MANHOLES	SS	1906	107	75	9,437	97	\$392.00	\$372.40	\$19.60	\$38,138.25	\$36,231.33	\$1,906.91
STORMWATER SEWER MANHOLE	SSW	1906	107	75	9,437	97	\$71.00	\$67.45	\$3.55	\$6,907.69	\$6,562.31	\$345.38
COMB. SANITARY & STORM MANHOLE	SC	1906	107	75	9,437	97	\$1,975.00	\$1,876.25	\$98.75	\$192,150.60	\$182,543.07	\$9,607.53
COMB. SANITARY & STORM MANHOLE	SC	1911	102	75	9,437	93	\$3,384.00	\$3,214.80	\$169.20	\$343,394.86	\$326,225.11	\$17,169.74
STORMWATER SEWER MANHOLE	SSW	1911	102	75	9,437	93	\$142.00	\$134.90	\$7.10	\$14,409.60	\$13,689.12	\$720.48
MANHOLES	SS	1911	102	75	9,437	93	\$620.00	\$589.00	\$31.00	\$62,915.13	\$59,769.38	\$3,145.76
MANHOLES	SS	1912	101	75	9,437	91	\$396.00	\$376.20	\$19.80	\$41,067.68	\$39,014.30	\$2,053.38
STORMWATER SEWER MANHOLE	SSW	1912	101	75	9,437	91	\$243.00	\$230.85	\$12.15	\$25,200.62	\$23,940.59	\$1,260.03
COMB. SANITARY & STORM MANHOLE	SC	1912	101	75	9,437	91	\$2,767.00	\$2,628.65	\$138.35	\$286,955.23	\$272,607.47	\$14,347.76
COMB. SANITARY & STORM MANHOLE	SC	1919	94	75	9,437	198	\$4,527.00	\$4,300.65	\$226.35	\$215,770.31	\$204,981.79	\$10,788.52
STORMWATER SEWER MANHOLE	SSW	1919	94	75	9,437	198	\$119.00	\$113.05	\$5.95	\$5,671.89	\$5,388.30	\$283.59
STORMWATER SEWER MANHOLE	SSW	1920	93	75	9,437	251	\$2,532.00	\$2,405.40	\$126.60	\$95,199.87	\$90,439.88	\$4,759.99
COMB. SANITARY & STORM MANHOLE	SC	1920	93	75	9,437	251	\$436.00	\$414.20	\$21.80	\$16,393.03	\$15,573.38	\$819.65
MANHOLES	SS	1920	93	75	9,437	251	\$2,607.00	\$2,476.65	\$130.35	\$98,019.77	\$93,118.78	\$4,900.99
MANHOLES	SS	1921	92	75	9,437	202	\$3,313.00	\$3,147.35	\$165.65	\$154,780.57	\$147,041.54	\$7,739.03
COMB. SANITARY & STORM MANHOLE	SC	1921	92	75	9,437	202	\$813.00	\$772.35	\$40.65	\$37,982.68	\$36,083.54	\$1,899.13
STORMWATER SEWER MANHOLE	SSW	1921	92	75	9,437	202	\$2,137.00	\$2,030.15	\$106.85	\$99,838.84	\$94,846.90	\$4,991.94
STORMWATER SEWER MANHOLE	SSW	1922	91	75	9,437	174	\$1,882.00	\$1,787.90	\$94.10	\$102,074.38	\$96,970.66	\$5,103.72
COMB. SANITARY & STORM MANHOLE	SC	1922	91	75	9,437	174	\$925.00	\$878.75	\$46.25	\$50,169.40	\$47,660.93	\$2,508.47
MANHOLES	SS	1922	91	75	9,437	174	\$3,395.00	\$3,225.25	\$169.75	\$184,135.24	\$174,928.48	\$9,206.76
MANHOLES	SS	1923	90	75	9,437	214	\$1,929.00	\$1,832.55	\$96.45	\$85,067.73	\$80,814.34	\$4,253.39
STORMWATER SEWER MANHOLE	SSW	1923	90	75	9,437	214	\$397.00	\$377.15	\$19.85	\$17,507.46	\$16,632.09	\$875.37
COMB. SANITARY & STORM MANHOLE	SC	1923	90	75	9,437	214	\$7,086.00	\$6,731.70	\$354.30	\$312,488.30	\$296,863.88	\$15,624.41
COMB. SANITARY & STORM MANHOLE	SC	1924	89	75	9,437	215	\$7,253.00	\$6,890.35	\$362.65	\$318,365.21	\$302,446.95	\$15,918.26
STORMWATER SEWER MANHOLE	SSW	1924	89	75	9,437	215	\$321.00	\$304.95	\$16.05	\$14,090.06	\$13,385.56	\$704.50
MANHOLES	SS	1924	89	75	9,437	215	\$508.00	\$482.60	\$25.40	\$22,298.29	\$21,183.38	\$1,114.91
MANHOLES	SS	1925	88	75	9,437	207	\$4,056.00	\$3,853.20	\$202.80	\$184,915.78	\$175,669.99	\$9,245.79
COMB. SANITARY & STORM MANHOLE	SC	1925	88	75	9,437	207	\$20,799.00	\$19,759.05	\$1,039.95	\$948,240.48	\$900,828.45	\$47,412.02
STORMWATER SEWER MANHOLE	SSW	1925	88	75	9,437	207	\$2,687.00	\$2,552.65	\$134.35	\$122,502.15	\$116,377.04	\$6,125.11
STORMWATER SEWER MANHOLE	SSW	1926	87	75	9,437	208	\$8,094.00	\$7,689.30	\$404.70	\$367,236.84	\$348,875.00	\$18,361.84
COMB. SANITARY & STORM MANHOLE	SC	1926	87	75	9,437	208	\$7,296.00	\$6,931.20	\$364.80	\$331,030.39	\$314,478.87	\$16,551.52
MANHOLES	SS	1926	87	75	9,437	208	\$9,847.00	\$9,354.65	\$492.35	\$446,773.07	\$424,434.41	\$22,338.65
COMB. SANITARY & STORM MANHOLE	SC	1927	86	75	9,437	206	\$90,687.00	\$86,152.65	\$4,534.35	\$4,154,551.96	\$3,946,824.37	\$207,727.60
STORMWATER SEWER MANHOLE	SSW	1927	86	75	9,437	206	\$9,106.00	\$8,650.70	\$455.30	\$417,163.98	\$396,305.78	\$20,858.20
MANHOLES	SS	1927	86	75	9,437	206	\$15,597.00	\$14,817.15	\$779.85	\$714,529.61	\$678,803.13	\$35,726.48
STORMWATER SEWER MANHOLE	SSW	1931	82	75	9,437	181	\$846.00	\$803.70	\$42.30	\$44,110.11	\$41,904.61	\$2,205.51
COMB. SANITARY & STORM MANHOLE	SC	1931	82	75	9,437	181	\$284.00	\$269.80	\$14.20	\$14,807.65	\$14,067.27	\$740.38
MANHOLES	SS	1931	82	75	9,437	181	\$302.00	\$286.90	\$15.10	\$15,746.16	\$14,958.86	\$787.31
STORMWATER SEWER MANHOLE	SSW	1935	78	75	9,437	196	\$2,655.00	\$2,522.25	\$132.75	\$127,836.49	\$121,444.66	\$6,391.82
MANHOLES	SS	1935	78	75	9,437	196	\$3,733.00	\$3,546.35	\$186.65	\$179,741.47	\$170,754.40	\$8,987.07
COMB. SANITARY & STORM MANHOLE	SC	1935	78	75	9,437	196	\$556.00	\$528.20	\$27.80	\$26,771.03	\$25,432.48	\$1,338.55
COMB. SANITARY & STORM MANHOLE	SC	1936	77	75	9,437	206	\$3,205.00	\$3,044.75	\$160.25	\$146,827.43	\$139,486.06	\$7,341.37
MANHOLES	SS	1936	77	75	9,437	206	\$2,491.00	\$2,366.45	\$124.55	\$114,117.67	\$108,411.78	\$5,705.88
STORMWATER SEWER MANHOLE	SSW	1936	77	75	9,437	206	\$1,943.00	\$1,845.85	\$97.15	\$89,012.70	\$84,562.06	\$4,450.63

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMB. SANITARY & STORM MANHOLE	SC	1937	76	75	9,437	235	\$624.00	\$592.80	\$31.20	\$25,058.96	\$23,806.02	\$1,252.95
COMB. SANITARY & STORM MANHOLE	SC	1939	74	75	9,437	236	\$533.00	\$506.35	\$26.65	\$21,313.83	\$20,248.14	\$1,065.69
COMB. SANITARY & STORM MANHOLE	SC	1940	73	75	9,437	242	\$5,222.00	\$4,960.90	\$261.10	\$203,642.25	\$193,460.14	\$10,182.11
MANHOLES	SS	1940	73	75	9,437	242	\$342.00	\$324.90	\$17.10	\$13,336.97	\$12,670.12	\$666.85
STORMWATER SEWER MANHOLE	SSW	1940	73	75	9,437	242	\$1,127.00	\$1,070.65	\$56.35	\$43,949.60	\$41,752.12	\$2,197.48
STORMWATER SEWER MANHOLE	SSW	1942	71	75	9,437	276	\$1,997.00	\$1,890.49	\$106.51	\$68,283.44	\$64,641.65	\$3,641.78
MANHOLES	SS	1942	71	75	9,437	276	\$291.00	\$275.48	\$15.52	\$9,950.17	\$9,419.49	\$530.68
COMB. SANITARY & STORM MANHOLE	SC	1942	71	75	9,437	276	\$10,402.00	\$9,847.23	\$554.77	\$355,675.66	\$336,706.29	\$18,969.37
COMB. SANITARY & STORM MANHOLE	SC	1944	69	75	9,437	299	\$2,639.00	\$2,427.88	\$211.12	\$83,294.17	\$76,630.63	\$6,663.53
MANHOLES	SS	1944	69	75	9,437	299	\$355.00	\$326.60	\$28.40	\$11,204.79	\$10,308.40	\$896.38
MANHOLES	SS	1945	68	75	9,437	308	\$1,485.00	\$1,346.40	\$138.60	\$45,501.12	\$41,254.35	\$4,246.77
COMB. SANITARY & STORM MANHOLE	SC	1945	68	75	9,437	308	\$4,733.00	\$4,291.25	\$441.75	\$145,021.43	\$131,486.09	\$13,535.33
STORMWATER SEWER MANHOLE	SSW	1945	68	75	9,437	308	\$806.00	\$730.77	\$75.23	\$24,696.23	\$22,391.25	\$2,304.98
COMB. SANITARY & STORM MANHOLE	SC	1947	66	75	9,437	413	\$46,585.00	\$40,994.80	\$5,590.20	\$1,064,492.07	\$936,753.02	\$127,739.05
MANHOLES	SS	1947	66	75	9,437	413	\$12,483.00	\$10,985.04	\$1,497.96	\$285,243.20	\$251,014.02	\$34,229.18
STORMWATER SEWER MANHOLE	SSW	1947	66	75	9,437	413	\$5,695.00	\$5,011.60	\$683.40	\$130,133.78	\$114,517.73	\$15,616.05
STORMWATER SEWER MANHOLE	SSW	1948	65	75	9,437	461	\$10,832.00	\$9,387.73	\$1,444.27	\$221,745.14	\$192,179.12	\$29,566.02
MANHOLES	SS	1948	65	75	9,437	461	\$30,931.00	\$26,806.87	\$4,124.13	\$633,197.83	\$548,771.45	\$84,426.38
COMB. SANITARY & STORM MANHOLE	SC	1948	65	75	9,437	461	\$29,819.00	\$25,843.13	\$3,975.87	\$610,433.74	\$529,042.57	\$81,391.17
COMB. SANITARY & STORM MANHOLE	SC	1949	64	75	9,437	477	\$2,301.00	\$1,963.52	\$337.48	\$45,524.44	\$38,847.52	\$6,676.92
MANHOLES	SS	1949	64	75	9,437	477	\$40,218.00	\$34,319.36	\$5,898.64	\$795,698.37	\$678,995.95	\$116,702.43
STORMWATER SEWER MANHOLE	SSW	1949	64	75	9,437	477	\$11,471.00	\$9,788.59	\$1,682.41	\$226,949.53	\$193,663.60	\$33,285.93
STORMWATER SEWER MANHOLE	SSW	1950	63	75	9,437	510	\$3,774.00	\$3,170.16	\$603.84	\$69,835.80	\$58,662.07	\$11,173.73
MANHOLES	SS	1950	63	75	9,437	510	\$14,639.00	\$12,296.76	\$2,342.24	\$270,886.66	\$227,544.79	\$43,341.87
COMB. SANITARY & STORM MANHOLE	SC	1950	63	75	9,437	510	\$31,313.00	\$26,302.92	\$5,010.08	\$579,429.87	\$486,721.09	\$92,708.78
COMB. SANITARY & STORM MANHOLE	SC	1951	62	75	9,437	543	\$10,887.00	\$8,999.92	\$1,887.08	\$189,214.66	\$156,417.45	\$32,797.21
MANHOLES	SS	1951	62	75	9,437	543	\$5,655.00	\$4,674.80	\$980.20	\$98,283.17	\$81,247.42	\$17,035.75
STORMWATER SEWER MANHOLE	SSW	1951	62	75	9,437	543	\$1,371.00	\$1,133.36	\$237.64	\$23,827.80	\$19,697.65	\$4,130.15
MANHOLES	SS	1952	61	75	9,437	569	\$2,127.00	\$1,729.96	\$397.04	\$35,277.81	\$28,692.62	\$6,585.19
STORMWATER SEWER MANHOLE	SSW	1952	61	75	9,437	569	\$1,516.00	\$1,233.01	\$282.99	\$25,143.94	\$20,450.40	\$4,693.54
COMB. SANITARY & STORM MANHOLE	SC	1952	61	75	9,437	569	\$27,230.00	\$22,147.07	\$5,082.93	\$451,628.93	\$367,324.86	\$84,304.07
COMB. SANITARY & STORM MANHOLE	SC	1953	60	75	9,437	600	\$36,061.00	\$28,848.80	\$7,212.20	\$567,195.66	\$453,756.52	\$113,439.13
STORMWATER SEWER MANHOLE	SSW	1953	60	75	9,437	600	\$6,079.00	\$4,863.20	\$1,215.80	\$95,615.27	\$76,492.22	\$19,123.05
MANHOLES	SS	1953	60	75	9,437	600	\$6,755.00	\$5,404.00	\$1,351.00	\$106,247.93	\$84,998.35	\$21,249.59
STORMWATER SEWER MANHOLE	SSW	1954	59	75	9,437	628	\$3,452.00	\$2,715.57	\$736.43	\$51,874.93	\$40,808.28	\$11,066.65
COMB. SANITARY & STORM MANHOLE	SC	1954	59	75	9,437	628	\$10,689.00	\$8,408.68	\$2,280.32	\$160,628.95	\$126,361.44	\$34,267.51
MANHOLES	SS	1954	59	75	9,437	628	\$4,054.00	\$3,189.15	\$864.85	\$60,921.49	\$47,924.90	\$12,996.58
MANHOLES	SS	1955	58	75	9,437	660	\$9,324.00	\$7,210.56	\$2,113.44	\$133,322.89	\$103,103.03	\$30,219.85
COMB. SANITARY & STORM MANHOLE	SC	1955	58	75	9,437	660	\$67,867.00	\$52,483.81	\$15,383.19	\$970,423.03	\$750,460.48	\$219,962.55
STORMWATER SEWER MANHOLE	SSW	1955	58	75	9,437	660	\$4,294.00	\$3,320.69	\$973.31	\$61,399.45	\$47,482.24	\$13,917.21
STORMWATER SEWER MANHOLE	SSW	1956	57	75	9,437	692	\$3,207.00	\$2,437.32	\$769.68	\$43,736.02	\$33,239.37	\$10,496.64
COMB. SANITARY & STORM MANHOLE	SC	1956	57	75	9,437	692	\$31,774.00	\$24,148.24	\$7,625.76	\$433,323.43	\$329,325.81	\$103,997.62
MANHOLES	SS	1956	57	75	9,437	692	\$2,661.00	\$2,022.36	\$638.64	\$36,289.85	\$27,580.29	\$8,709.56
MANHOLES	SS	1957	56	75	9,437	724	\$14,524.00	\$10,844.59	\$3,679.41	\$189,318.94	\$141,358.14	\$47,960.80
STORMWATER SEWER MANHOLE	SSW	1957	56	75	9,437	724	\$1,076.00	\$803.41	\$272.59	\$14,025.56	\$10,472.42	\$3,553.14
COMB. SANITARY & STORM MANHOLE	SC	1958	55	75	9,437	759	\$1,444.00	\$1,058.93	\$385.07	\$17,954.44	\$13,166.59	\$4,787.85
STORMWATER SEWER MANHOLE	SSW	1958	55	75	9,437	759	\$6,910.00	\$5,067.33	\$1,842.67	\$85,917.70	\$63,006.31	\$22,911.39
MANHOLES	SS	1958	55	75	9,437	759	\$21,810.00	\$15,994.00	\$5,816.00	\$271,181.63	\$198,866.53	\$72,315.10
MANHOLES	SS	1959	54	75	9,437	797	\$23,361.00	\$16,819.92	\$6,541.08	\$276,617.40	\$199,164.52	\$77,452.87
COMB. SANITARY & STORM MANHOLE	SC	1959	54	75	9,437	797	\$9,072.00	\$6,531.84	\$2,540.16	\$107,421.47	\$77,343.46	\$30,078.01
COMB. SANITARY & STORM MANHOLE	SC	1959	54	75	9,437	797	\$31,282.00	\$22,523.04	\$8,758.96	\$370,409.89	\$266,695.12	\$103,714.77
STORMWATER SEWER MANHOLE	SSW	1959	54	75	9,437	797	\$22,241.00	\$16,013.52	\$6,227.48	\$263,355.49	\$189,615.95	\$73,739.54
COMB. SANITARY & STORM MANHOLE	SC	1961	52	75	9,437	847	\$937.00	\$649.65	\$287.35	\$10,440.05	\$7,238.43	\$3,201.62
MANHOLES	SS	1961	52	75	9,437	847	\$1,032.00	\$715.52	\$316.48	\$11,498.54	\$7,972.32	\$3,526.22
COMB. SANITARY & STORM MANHOLE	SC	1962	51	75	9,437	872	\$2,466.00	\$1,676.88	\$789.12	\$26,688.43	\$18,148.13	\$8,540.30

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjsted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
STORMWATER SEWER MANHOLE	SSW	1962	51	75	9,437	872	\$943.00	\$641.24	\$301.76	\$10,205.67	\$6,939.86	\$3,265.81
COMB. SANITARY & STORM MANHOLE	SC	1963	50	75	9,437	901	\$1,032.00	\$688.00	\$344.00	\$10,809.39	\$7,206.26	\$3,603.13
COMB. SANITARY & STORM MANHOLE	SC	1964	49	75	9,437	936	\$4,994.00	\$3,262.75	\$1,731.25	\$50,352.27	\$32,896.82	\$17,455.45
MANHOLES	SS	1964	49	75	9,437	936	\$408.00	\$266.56	\$141.44	\$4,113.68	\$2,687.61	\$1,426.08
STORMWATER SEWER MANHOLE	SSW	1965	48	75	9,437	971	\$1,753.00	\$1,121.92	\$631.08	\$17,037.63	\$10,904.08	\$6,133.55
COMB. SANITARY & STORM MANHOLE	SC	1965	48	75	9,437	971	\$606.00	\$387.84	\$218.16	\$5,889.79	\$3,769.47	\$2,120.32
MANHOLES	SS	1966	47	75	9,437	1,019	\$14,028.00	\$8,790.88	\$5,237.12	\$129,917.59	\$81,415.02	\$48,502.57
MANHOLES	SS	1967	46	75	9,437	1,074	\$9,802.00	\$6,011.89	\$3,790.11	\$86,130.47	\$52,826.69	\$33,303.78
STORMWATER SEWER MANHOLE	SSW	1967	46	75	9,437	1,074	\$2,395.00	\$1,468.93	\$926.07	\$21,044.94	\$12,907.56	\$8,137.38
COMB. SANITARY & STORM MANHOLE	SC	1967	46	75	9,437	1,074	\$22,614.00	\$13,869.92	\$8,744.08	\$198,709.89	\$121,875.40	\$76,834.49
MANHOLES	SS	1968	45	75	9,437	1,155	\$569.00	\$341.40	\$227.60	\$4,649.18	\$2,789.51	\$1,859.67
MANHOLES	SS	1969	44	75	9,437	1,269	\$604.00	\$354.35	\$249.65	\$4,491.81	\$2,635.20	\$1,856.62
COMB. SANITARY & STORM MANHOLE	SC	1969	44	75	9,437	1,269	\$604.00	\$354.35	\$249.65	\$4,491.81	\$2,635.20	\$1,856.62
MANHOLES	SS	1971	42	75	9,437	1,581	\$6,715.00	\$3,760.40	\$2,954.60	\$40,083.03	\$22,446.50	\$17,636.53
MANHOLES	SS	1972	41	75	9,437	1,753	\$766.00	\$418.75	\$347.25	\$4,123.76	\$2,254.32	\$1,869.44
MANHOLES	SS	1974	39	75	9,437	2,020	\$831.00	\$432.12	\$398.88	\$3,082.36	\$2,018.83	\$1,063.53
COMB. SANITARY & STORM MANHOLE	SC	1975	38	75	9,437	2,212	\$2,201.00	\$1,115.17	\$1,085.83	\$9,390.34	\$4,757.77	\$4,632.57
COMB. SANITARY & STORM MANHOLE	SC	1976	37	75	9,437	2,401	\$1,164.00	\$574.24	\$589.76	\$4,575.17	\$2,257.08	\$2,318.09
COMB. SANITARY & STORM MANHOLE	SC	1979	34	75	9,437	3,003	\$1,356.00	\$614.72	\$741.28	\$4,261.38	\$1,931.83	\$2,329.56
MANHOLES	SS	1979	34	75	9,437	3,003	\$2,796.00	\$1,267.52	\$1,528.48	\$8,786.75	\$3,983.33	\$4,803.42
COMB. SANITARY & STORM MANHOLE	SC	1980	33	75	9,437	3,237	\$1,526.00	\$671.44	\$854.56	\$4,448.96	\$1,957.54	\$2,491.42
MANHOLES	SS	1981	32	75	9,437	3,535	\$4,076.00	\$1,739.09	\$2,336.91	\$10,881.56	\$4,642.80	\$6,238.76
STORMWATER SEWER MANHOLE	SSW	1981	32	75	9,437	3,535	\$4,497.00	\$1,918.72	\$2,578.28	\$12,005.49	\$5,122.34	\$6,883.15
COMB. SANITARY & STORM MANHOLE	SC	1985	28	75	9,437	4,195	\$3,838.00	\$1,432.85	\$2,405.15	\$8,634.15	\$3,223.41	\$5,410.73
MANHOLES	SS	1985	28	75	9,437	4,195	\$21,111.00	\$7,881.44	\$13,229.56	\$47,492.30	\$17,730.46	\$29,761.84
STORMWATER SEWER MANHOLE	SSW	1987	26	75	9,437	4,406	\$1,912.00	\$662.83	\$1,249.17	\$4,095.34	\$1,419.72	\$2,675.62
COMB. SANITARY & STORM MANHOLE	SC	1987	26	75	9,437	4,406	\$26,032.00	\$9,024.43	\$17,007.57	\$55,758.29	\$19,329.54	\$36,428.75
STORMWATER SEWER MANHOLE	SSW	1989	24	75	9,437	4,815	\$8,916.00	\$2,853.12	\$6,062.88	\$17,475.12	\$5,592.04	\$11,883.08
MANHOLES	SS	1989	24	75	9,437	4,815	\$20,061.00	\$6,419.52	\$13,641.48	\$39,319.02	\$12,582.09	\$26,736.93
STORMWATER SEWER MANHOLE	SSW	1992	21	75	9,437	4,985	\$23,024.00	\$6,446.72	\$16,577.28	\$43,587.50	\$12,204.50	\$31,383.00
STORMWATER SEWER MANHOLE	SSW	1993	20	75	9,437	5,210	\$7,276.00	\$1,940.27	\$5,335.73	\$13,179.57	\$3,514.55	\$9,665.02
COMB. SANITARY & STORM MANHOLE	SC	1997	16	75	9,437	5,825	\$33,170.00	\$7,076.27	\$26,093.73	\$53,739.78	\$11,464.49	\$42,275.30
COMB. SANITARY & STORM MANHOLE	SC	2000	13	75	9,437	6,221	\$11,843.00	\$2,052.79	\$9,790.21	\$17,965.86	\$3,114.08	\$14,851.77
COMB. SANITARY & STORM MANHOLE	SC	2001	12	75	9,437	6,342	\$11,817.00	\$1,890.72	\$9,926.28	\$17,584.39	\$2,813.50	\$14,770.89
COMB. SANITARY & STORM MANHOLE	SC	2002	11	75	9,437	6,538	\$3,053.00	\$447.77	\$2,605.23	\$4,406.85	\$646.34	\$3,760.51
MANHOLES	SS	2002	11	75	9,437	6,538	\$3,053.00	\$447.77	\$2,605.23	\$4,406.85	\$646.34	\$3,760.51
SANITARY SEWER SYSTEM PIPES	SS	1900	113	75	9,437	97	\$846.00	\$803.70	\$42.30	\$82,308.56	\$78,193.13	\$4,115.43
STORMWATER SEWER SYSTEM PIPES	SSW	1900	113	75	9,437	97	\$776.00	\$737.20	\$38.80	\$75,498.16	\$71,723.25	\$3,774.91
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$230.00	\$218.50	\$11.50	\$22,377.03	\$21,258.18	\$1,118.85
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$311.00	\$295.45	\$15.55	\$30,257.64	\$28,744.76	\$1,512.88
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$664.00	\$630.80	\$33.20	\$64,601.52	\$61,371.44	\$3,230.08
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$375.00	\$356.25	\$18.75	\$36,484.29	\$34,660.08	\$1,824.21
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$378.00	\$359.10	\$18.90	\$36,776.17	\$34,937.36	\$1,838.81
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$833.00	\$791.35	\$41.65	\$81,043.77	\$76,991.58	\$4,052.19
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$456.00	\$433.20	\$22.80	\$44,364.90	\$42,146.65	\$2,218.24
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,184.00	\$2,074.80	\$109.20	\$212,484.51	\$201,860.29	\$10,624.23
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,599.00	\$1,519.05	\$79.95	\$155,569.02	\$147,790.57	\$7,778.45
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$681.00	\$646.95	\$34.05	\$66,255.47	\$62,942.70	\$3,312.77
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,254.00	\$1,191.30	\$62.70	\$122,003.47	\$115,903.30	\$6,100.17
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$469.00	\$445.55	\$23.45	\$45,629.69	\$43,348.20	\$2,281.48
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$7,302.00	\$6,936.90	\$365.10	\$710,422.12	\$674,901.01	\$35,521.11
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$3,157.00	\$2,999.15	\$157.85	\$307,149.09	\$291,791.63	\$15,357.45
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$3,146.00	\$2,988.70	\$157.30	\$306,078.88	\$290,774.94	\$15,303.94
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$2,311.00	\$2,195.45	\$115.55	\$224,840.53	\$213,598.50	\$11,242.03
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$3,492.00	\$3,317.40	\$174.60	\$339,741.72	\$322,754.63	\$16,987.09

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$277.00	\$263.15	\$13.85	\$26,949.73	\$25,602.24	\$1,347.49
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$475.00	\$451.25	\$23.75	\$46,213.44	\$43,902.76	\$2,310.67
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$520.00	\$494.00	\$26.00	\$50,591.55	\$48,061.97	\$2,529.58
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$408.00	\$387.60	\$20.40	\$39,694.91	\$37,710.16	\$1,984.75
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$1,178.00	\$1,119.10	\$58.90	\$114,609.32	\$108,878.85	\$5,730.47
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$649.00	\$616.55	\$32.45	\$63,142.15	\$59,985.04	\$3,157.11
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$826.00	\$784.70	\$41.30	\$80,362.73	\$76,344.60	\$4,018.14
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$1,108.00	\$1,052.60	\$55.40	\$107,798.92	\$102,408.97	\$5,389.95
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$157.00	\$149.15	\$7.85	\$15,274.76	\$14,511.02	\$763.74
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$1,199.00	\$1,139.05	\$59.95	\$116,652.44	\$110,819.82	\$5,832.62
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$636.00	\$604.20	\$31.80	\$61,877.36	\$58,783.49	\$3,093.87
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$901.00	\$855.95	\$45.05	\$87,659.59	\$83,276.61	\$4,382.98
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$1,721.00	\$1,634.95	\$86.05	\$167,438.57	\$159,066.65	\$8,371.93
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$1,598.00	\$1,518.10	\$79.90	\$155,471.73	\$147,698.14	\$7,773.59
COMBINED SYSTEMS PIPE	SC	1900	113	75	9,437	97	\$1,663.00	\$1,579.85	\$83.15	\$161,795.67	\$153,705.89	\$8,089.78
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,928.00	\$1,831.60	\$96.40	\$187,577.90	\$178,199.01	\$9,378.90
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,401.00	\$1,330.95	\$70.05	\$136,305.31	\$129,490.05	\$6,815.27
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$523.00	\$496.85	\$26.15	\$50,883.42	\$48,339.25	\$2,544.17
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,443.00	\$1,370.85	\$72.15	\$140,391.55	\$133,371.98	\$7,019.58
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,546.00	\$1,468.70	\$77.30	\$150,412.57	\$142,891.94	\$7,520.63
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,243.00	\$2,130.85	\$112.15	\$218,224.71	\$207,313.47	\$10,911.24
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,792.00	\$1,702.40	\$89.60	\$174,346.27	\$165,628.95	\$8,717.31
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,701.00	\$1,615.95	\$85.05	\$165,492.75	\$157,218.11	\$8,274.64
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,057.00	\$1,004.15	\$52.85	\$102,837.06	\$97,695.20	\$5,141.85
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$621.00	\$589.95	\$31.05	\$60,417.99	\$57,397.09	\$3,020.90
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,503.00	\$1,427.85	\$75.15	\$146,229.04	\$138,917.59	\$7,311.45
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$8,404.00	\$7,983.80	\$420.20	\$817,637.29	\$776,755.43	\$40,881.86
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,747.00	\$2,609.65	\$137.35	\$267,259.59	\$253,896.62	\$13,362.98
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$10,269.00	\$9,755.55	\$513.45	\$999,085.83	\$949,131.54	\$49,954.29
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,390.00	\$2,270.50	\$119.50	\$232,526.55	\$220,900.22	\$11,626.33
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,287.00	\$1,222.65	\$64.35	\$125,214.09	\$118,953.38	\$6,260.70
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,572.00	\$1,493.40	\$78.60	\$152,942.15	\$145,295.04	\$7,647.11
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$7,639.00	\$7,257.05	\$381.95	\$743,209.34	\$706,048.87	\$37,160.47
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$153.00	\$145.35	\$7.65	\$14,885.59	\$14,141.31	\$744.28
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$5,284.00	\$5,019.80	\$264.20	\$514,087.99	\$488,383.59	\$25,704.40
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,011.00	\$960.45	\$50.55	\$98,361.65	\$93,443.57	\$4,918.08
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$714.00	\$678.30	\$35.70	\$69,466.09	\$65,992.79	\$3,473.30
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$728.00	\$691.60	\$36.40	\$70,828.17	\$67,286.76	\$3,541.41
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,439.00	\$2,317.05	\$121.95	\$237,293.83	\$225,429.14	\$11,864.69
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,319.00	\$1,253.05	\$65.95	\$128,327.41	\$121,911.04	\$6,416.37
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,543.00	\$1,465.85	\$77.15	\$150,120.70	\$142,614.66	\$7,506.03
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,977.00	\$1,878.15	\$98.85	\$192,345.18	\$182,727.92	\$9,617.26
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$5,476.00	\$5,202.20	\$273.80	\$532,767.94	\$506,129.55	\$26,638.40
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$745.00	\$707.75	\$37.25	\$72,482.13	\$68,858.02	\$3,624.11
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$4,613.00	\$4,382.35	\$230.65	\$448,805.43	\$426,365.16	\$22,440.27
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,974.00	\$1,875.30	\$98.70	\$192,053.31	\$182,450.64	\$9,602.67
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,532.00	\$1,455.40	\$76.60	\$149,050.49	\$141,597.97	\$7,452.52
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,231.00	\$2,119.45	\$111.55	\$217,057.21	\$206,204.35	\$10,852.86
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,302.00	\$1,236.90	\$65.10	\$126,673.46	\$120,339.79	\$6,333.67
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,541.00	\$1,463.95	\$77.05	\$149,926.11	\$142,429.81	\$7,496.31
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$155.00	\$147.25	\$7.75	\$15,080.17	\$14,326.17	\$754.01
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$4,966.00	\$4,717.70	\$248.30	\$483,149.31	\$458,991.84	\$24,157.47
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$106.00	\$100.70	\$5.30	\$10,312.89	\$9,797.25	\$515.64
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$373.00	\$354.35	\$18.65	\$36,289.71	\$34,475.22	\$1,814.49
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$556.00	\$528.20	\$27.80	\$54,094.04	\$51,389.34	\$2,704.70

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$583.00	\$553.85	\$29.15	\$56,720.91	\$53,884.87	\$2,836.05
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,603.00	\$1,522.85	\$80.15	\$155,958.18	\$148,160.27	\$7,797.91
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$321.00	\$304.95	\$16.05	\$31,230.55	\$29,669.03	\$1,561.53
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,081.00	\$1,026.95	\$54.05	\$105,172.05	\$99,913.45	\$5,258.60
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,226.00	\$2,114.70	\$111.30	\$216,570.75	\$205,742.22	\$10,828.54
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,977.00	\$1,878.15	\$98.85	\$192,345.18	\$182,727.92	\$9,617.26
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,334.00	\$1,267.30	\$66.70	\$129,786.79	\$123,297.45	\$6,489.34
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,534.00	\$2,407.30	\$126.70	\$246,536.52	\$234,209.69	\$12,326.83
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,079.00	\$1,975.05	\$103.95	\$202,268.91	\$192,155.47	\$10,113.45
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$3,331.00	\$3,164.45	\$166.55	\$324,077.80	\$307,873.91	\$16,203.89
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$20,539.00	\$19,512.05	\$1,026.95	\$1,998,268.95	\$1,898,355.51	\$99,913.45
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$6,672.00	\$6,338.40	\$333.60	\$649,128.51	\$616,672.08	\$32,456.43
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$4,075.00	\$3,871.25	\$203.75	\$396,462.63	\$376,639.50	\$19,823.13
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,067.00	\$1,963.65	\$103.35	\$201,101.41	\$191,046.34	\$10,055.07
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$14,326.00	\$13,609.70	\$716.30	\$1,393,797.22	\$1,324,107.36	\$69,689.86
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$3,167.00	\$3,008.65	\$158.35	\$308,122.00	\$292,715.90	\$15,406.10
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,721.00	\$2,584.95	\$136.05	\$264,730.02	\$251,493.52	\$13,236.50
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,224.00	\$1,162.80	\$61.20	\$119,084.73	\$113,130.49	\$5,954.24
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,956.00	\$1,858.20	\$97.80	\$190,302.06	\$180,786.96	\$9,515.10
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$867.00	\$823.65	\$43.35	\$84,351.68	\$80,134.10	\$4,217.58
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$3,422.00	\$3,250.90	\$171.10	\$332,931.32	\$316,284.75	\$16,646.57
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$5,384.00	\$5,114.80	\$269.20	\$523,817.13	\$497,626.27	\$26,190.86
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$4,172.00	\$3,963.40	\$208.60	\$405,899.90	\$385,604.91	\$20,295.00
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$4,151.00	\$3,943.45	\$207.55	\$403,856.78	\$383,663.94	\$20,192.84
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$3,737.00	\$3,550.15	\$186.85	\$363,578.12	\$345,399.22	\$18,178.91
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$563.00	\$534.85	\$28.15	\$54,775.08	\$52,036.33	\$2,738.75
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$903.00	\$857.85	\$45.15	\$87,854.17	\$83,461.46	\$4,392.71
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$658.00	\$625.10	\$32.90	\$64,017.77	\$60,816.88	\$3,200.89
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,016.00	\$965.20	\$50.80	\$98,848.11	\$93,905.70	\$4,942.41
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$839.00	\$797.05	\$41.95	\$81,627.52	\$77,546.14	\$4,081.38
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$3,180.00	\$3,021.00	\$159.00	\$309,386.79	\$293,917.45	\$15,469.34
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$729.00	\$692.55	\$36.45	\$70,925.46	\$67,379.19	\$3,546.27
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$12,514.00	\$11,888.30	\$625.70	\$1,217,505.12	\$1,156,629.87	\$60,875.26
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$4,232.00	\$4,020.40	\$211.60	\$411,737.39	\$391,150.52	\$20,586.87
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$815.00	\$774.25	\$40.75	\$79,292.53	\$75,327.90	\$3,964.63
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$2,986.00	\$2,836.70	\$149.30	\$290,512.25	\$275,986.64	\$14,525.61
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$7,220.00	\$6,859.00	\$361.00	\$702,444.22	\$667,322.01	\$35,122.21
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,297.00	\$1,232.15	\$64.85	\$126,187.00	\$119,877.65	\$6,309.35
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,654.00	\$1,571.30	\$82.70	\$160,920.05	\$152,874.04	\$8,046.00
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$5,996.00	\$5,696.20	\$299.80	\$583,359.49	\$554,191.52	\$29,167.97
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$1,689.00	\$1,604.55	\$84.45	\$164,325.25	\$156,108.99	\$8,216.26
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$190.00	\$180.50	\$9.50	\$18,485.37	\$17,561.11	\$924.27
COMBINED SYSTEMS PIPES	SC	1900	113	75	9,437	97	\$223.00	\$211.85	\$11.15	\$21,695.99	\$20,611.19	\$1,084.80
COMBINED SYSTEMS PIPES	SC	1901	112	75	9,437	97	\$1,586.00	\$1,506.70	\$79.30	\$154,304.23	\$146,589.02	\$7,715.21
COMBINED SYSTEMS PIPES	SC	1901	112	75	9,437	97	\$4,729.00	\$4,492.55	\$236.45	\$460,091.24	\$437,086.67	\$23,004.56
COMBINED SYSTEMS PIPES	SC	1901	112	75	9,437	97	\$5,325.00	\$5,058.75	\$266.25	\$518,076.94	\$492,173.09	\$25,903.85
COMBINED SYSTEMS PIPES	SC	1901	112	75	9,437	97	\$10,481.00	\$9,956.95	\$524.05	\$1,019,711.62	\$968,726.04	\$50,985.58
STORMWATER SEWER SYSTEM PIPES	SSW	1901	112	75	9,437	97	\$171.00	\$162.45	\$8.55	\$16,636.84	\$15,804.99	\$831.84
STORMWATER SEWER SYSTEM PIPES	SSW	1901	112	75	9,437	97	\$522.00	\$495.90	\$26.10	\$50,786.13	\$48,246.83	\$2,539.31
SANITARY SEWER SYSTEM PIPES	SS	1901	112	75	9,437	97	\$2,279.00	\$2,165.05	\$113.95	\$221,727.20	\$210,640.84	\$11,086.36
COMBINED SYSTEMS PIPES	SC	1902	111	75	9,437	97	\$4,641.00	\$4,408.95	\$232.05	\$451,529.59	\$428,953.11	\$22,576.48
COMBINED SYSTEMS PIPES	SC	1902	111	75	9,437	97	\$8,086.00	\$7,681.70	\$404.30	\$786,698.61	\$747,363.68	\$39,334.93
COMBINED SYSTEMS PIPES	SC	1902	111	75	9,437	97	\$1,635.00	\$1,553.25	\$81.75	\$159,071.51	\$151,117.93	\$7,953.58
COMBINED SYSTEMS PIPES	SC	1902	111	75	9,437	97	\$2,461.00	\$2,337.95	\$123.05	\$239,434.24	\$227,462.53	\$11,971.71
COMBINED SYSTEMS PIPES	SC	1902	111	75	9,437	97	\$1,027.00	\$975.65	\$51.35	\$99,918.31	\$94,922.40	\$4,995.92

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$1,336.00	\$1,269.20	\$66.80	\$129,981.37	\$123,482.30	\$6,499.07
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$963.00	\$914.85	\$48.15	\$93,691.66	\$89,007.08	\$4,684.58
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$641.00	\$608.95	\$32.05	\$62,363.82	\$59,245.62	\$3,118.19
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$812.00	\$771.40	\$40.60	\$79,000.65	\$75,050.62	\$3,950.03
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$4,201.00	\$3,990.95	\$210.05	\$408,721.35	\$388,285.29	\$20,436.07
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$12,479.00	\$11,855.05	\$623.95	\$1,214,099.92	\$1,153,394.92	\$60,705.00
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$1,707.00	\$1,621.65	\$85.35	\$166,076.49	\$157,772.67	\$8,303.82
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$1,216.00	\$1,155.20	\$60.80	\$118,306.40	\$112,391.08	\$5,915.32
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$7,801.00	\$7,410.95	\$390.05	\$758,970.55	\$721,022.02	\$37,948.53
COMBINED SYSTEMS PIPES	SC	1903	110	75	9,437	97	\$3,935.00	\$3,738.25	\$196.75	\$382,841.83	\$363,699.74	\$19,142.09
COMBINED SYSTEMS PIPES	SC	1904	109	75	9,437	97	\$30,874.00	\$29,330.30	\$1,543.70	\$3,003,776.02	\$2,853,587.22	\$150,188.80
COMBINED SYSTEMS PIPES	SC	1904	109	75	9,437	97	\$30,392.00	\$28,872.40	\$1,519.60	\$2,956,881.54	\$2,809,037.47	\$147,844.08
COMBINED SYSTEMS PIPES	SC	1904	109	75	9,437	97	\$1,457.00	\$1,384.15	\$72.85	\$141,753.63	\$134,665.95	\$7,087.68
COMBINED SYSTEMS PIPES	SC	1904	109	75	9,437	97	\$5,616.00	\$5,335.20	\$280.80	\$546,388.75	\$519,069.31	\$27,319.44
COMBINED SYSTEMS PIPES	SC	1904	109	75	9,437	97	\$13,257.00	\$12,594.15	\$662.85	\$1,289,792.66	\$1,225,303.03	\$64,489.63
COMBINED SYSTEMS PIPES	SC	1904	109	75	9,437	97	\$2,140.00	\$2,033.00	\$107.00	\$208,203.69	\$197,793.50	\$10,410.18
COMBINED SYSTEMS PIPES	SC	1904	109	75	9,437	97	\$1,870.00	\$1,776.50	\$93.50	\$181,935.00	\$172,838.25	\$9,096.75
COMBINED SYSTEMS PIPES	SC	1904	109	75	9,437	97	\$464.00	\$440.80	\$23.20	\$45,143.23	\$42,886.07	\$2,257.16
COMBINED SYSTEMS PIPES	SC	1904	109	75	9,437	97	\$5,944.00	\$5,646.80	\$297.20	\$578,300.34	\$549,385.32	\$28,915.02
COMBINED SYSTEMS PIPES	SC	1905	108	75	9,437	97	\$3,248.00	\$3,085.60	\$162.40	\$316,002.61	\$300,202.48	\$15,800.13
COMBINED SYSTEMS PIPES	SC	1905	108	75	9,437	97	\$7,779.00	\$7,390.05	\$388.95	\$756,830.14	\$718,988.63	\$37,841.51
COMBINED SYSTEMS PIPES	SC	1905	108	75	9,437	97	\$509.00	\$483.55	\$25.45	\$49,521.34	\$47,045.28	\$2,476.07
COMBINED SYSTEMS PIPES	SC	1905	108	75	9,437	97	\$3,720.00	\$3,534.00	\$186.00	\$361,924.17	\$343,827.96	\$18,096.21
COMBINED SYSTEMS PIPES	SC	1905	108	75	9,437	97	\$3,795.00	\$3,605.25	\$189.75	\$369,221.03	\$350,759.98	\$18,461.05
COMBINED SYSTEMS PIPES	SC	1905	108	75	9,437	97	\$16,886.00	\$16,041.70	\$844.30	\$1,642,863.31	\$1,560,720.15	\$82,143.17
COMBINED SYSTEMS PIPES	SC	1905	108	75	9,437	97	\$3,209.00	\$3,048.55	\$160.45	\$312,208.24	\$296,597.83	\$15,610.41
COMBINED SYSTEMS PIPES	SC	1905	108	75	9,437	97	\$3,309.00	\$3,143.55	\$165.45	\$321,937.39	\$305,840.52	\$16,096.87
COMBINED SYSTEMS PIPES	SC	1905	108	75	9,437	97	\$844.00	\$801.80	\$42.20	\$82,113.98	\$78,008.28	\$4,105.70
COMBINED SYSTEMS PIPES	SC	1906	107	75	9,437	97	\$1,223.00	\$1,161.85	\$61.15	\$118,987.44	\$113,038.06	\$5,949.37
COMBINED SYSTEMS PIPES	SC	1906	107	75	9,437	97	\$4,422.00	\$4,200.90	\$221.10	\$430,222.76	\$408,711.62	\$21,511.14
COMBINED SYSTEMS PIPES	SC	1906	107	75	9,437	97	\$2,845.00	\$2,702.75	\$142.25	\$276,794.16	\$262,954.45	\$13,839.71
COMBINED SYSTEMS PIPES	SC	1906	107	75	9,437	97	\$451.00	\$428.45	\$22.55	\$43,878.44	\$41,684.52	\$2,193.92
COMBINED SYSTEMS PIPES	SC	1906	107	75	9,437	97	\$6,981.00	\$6,631.95	\$349.05	\$679,191.57	\$645,231.99	\$33,959.58
COMBINED SYSTEMS PIPES	SC	1906	107	75	9,437	97	\$40,053.00	\$38,050.35	\$2,002.65	\$3,896,814.18	\$3,701,973.47	\$194,840.71
COMBINED SYSTEMS PIPES	SC	1906	107	75	9,437	97	\$12,085.00	\$11,480.75	\$604.25	\$1,175,767.09	\$1,116,978.74	\$58,788.35
COMBINED SYSTEMS PIPES	SC	1906	107	75	9,437	97	\$13,472.00	\$12,798.40	\$673.60	\$1,310,710.32	\$1,245,174.81	\$65,535.52
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$6,384.00	\$6,064.80	\$319.20	\$621,108.57	\$590,053.15	\$31,055.43
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$3,076.00	\$2,922.20	\$153.80	\$299,268.48	\$284,305.06	\$14,963.42
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$6,620.00	\$6,289.00	\$331.00	\$644,069.35	\$611,865.89	\$32,203.47
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$1,130.00	\$1,073.50	\$56.50	\$109,939.33	\$104,442.36	\$5,496.97
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$2,950.00	\$2,802.50	\$147.50	\$287,009.76	\$272,659.27	\$14,350.49
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$9,729.00	\$9,242.55	\$486.45	\$946,548.45	\$899,221.03	\$47,327.42
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$2,984.00	\$2,834.80	\$149.20	\$290,317.67	\$275,801.78	\$14,515.88
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$21,354.00	\$20,286.30	\$1,067.70	\$2,077,561.48	\$1,973,683.41	\$103,878.07
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$2,160.00	\$2,052.00	\$108.00	\$210,149.52	\$199,642.04	\$10,507.48
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$1,924.00	\$1,827.80	\$96.20	\$187,188.74	\$177,829.30	\$9,359.44
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$2,158.00	\$2,050.10	\$107.90	\$209,954.93	\$199,457.19	\$10,497.75
COMBINED SYSTEMS PIPES	SC	1907	106	75	9,437	97	\$1,245.00	\$1,182.75	\$62.25	\$121,127.85	\$115,071.45	\$6,056.39
STORMWATER SEWER SYSTEM PIPES	SSW	1907	106	75	9,437	97	\$412.00	\$391.40	\$20.60	\$40,084.07	\$38,079.87	\$2,004.20
STORMWATER SEWER SYSTEM PIPES	SSW	1908	105	75	9,437	97	\$3,511.00	\$3,335.45	\$175.55	\$341,590.26	\$324,510.74	\$17,079.51
STORMWATER SEWER SYSTEM PIPES	SSW	1908	105	75	9,437	97	\$1,449.00	\$1,376.55	\$72.45	\$140,975.30	\$133,926.54	\$7,048.77
SANITARY SEWER SYSTEM PIPES	SS	1908	105	75	9,437	97	\$667.00	\$633.65	\$33.35	\$64,893.39	\$61,648.72	\$3,244.67
COMBINED SYSTEMS PIPES	SC	1908	105	75	9,437	97	\$1,689.00	\$1,604.55	\$84.45	\$164,325.25	\$156,108.99	\$8,216.26
COMBINED SYSTEMS PIPES	SC	1908	105	75	9,437	97	\$8,673.00	\$8,239.35	\$433.65	\$843,808.69	\$801,618.25	\$42,190.43
COMBINED SYSTEMS PIPES	SC	1908	105	75	9,437	97	\$4,036.00	\$3,834.20	\$201.80	\$392,668.27	\$373,034.85	\$19,633.41

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1908	105	75	9,437	97	\$5,245.00	\$4,982.75	\$262.25	\$510,293.62	\$484,778.94	\$25,514.68
COMBINED SYSTEMS PIPES	SC	1908	105	75	9,437	97	\$1,920.00	\$1,824.00	\$96.00	\$186,799.57	\$177,459.59	\$9,339.98
COMBINED SYSTEMS PIPES	SC	1909	104	75	9,437	91	\$4,201.00	\$3,990.95	\$210.05	\$435,670.01	\$413,886.51	\$21,783.50
COMBINED SYSTEMS PIPES	SC	1909	104	75	9,437	91	\$4,111.00	\$3,905.45	\$205.55	\$426,336.45	\$405,019.63	\$21,316.82
COMBINED SYSTEMS PIPES	SC	1909	104	75	9,437	91	\$1,007.00	\$956.65	\$50.35	\$104,432.21	\$99,210.60	\$5,221.61
COMBINED SYSTEMS PIPES	SC	1909	104	75	9,437	91	\$11,881.00	\$11,286.95	\$594.05	\$1,232,134.12	\$1,170,527.41	\$61,606.71
COMBINED SYSTEMS PIPES	SC	1909	104	75	9,437	91	\$1,495.00	\$1,420.25	\$74.75	\$155,040.86	\$147,288.82	\$7,752.04
COMBINED SYSTEMS PIPES	SC	1909	104	75	9,437	91	\$225.00	\$213.75	\$11.25	\$23,333.91	\$22,167.21	\$1,166.70
SANITARY SEWER SYSTEM PIPES	SS	1909	104	75	9,437	91	\$4,820.00	\$4,579.00	\$241.00	\$499,864.19	\$474,870.98	\$24,993.21
SANITARY SEWER SYSTEM PIPES	SS	1909	104	75	9,437	91	\$2,184.00	\$2,074.80	\$109.20	\$226,494.48	\$215,169.76	\$11,324.72
SANITARY SEWER SYSTEM PIPES	SS	1909	104	75	9,437	91	\$2,609.00	\$2,478.55	\$130.45	\$270,569.64	\$257,041.16	\$13,528.48
SANITARY SEWER SYSTEM PIPES	SS	1909	104	75	9,437	91	\$6,598.00	\$6,268.10	\$329.90	\$684,253.93	\$650,041.23	\$34,212.70
COMBINED SYSTEMS PIPES	SC	1909	104	75	9,437	91	\$568.00	\$539.60	\$28.40	\$58,905.16	\$55,959.90	\$2,945.26
SANITARY SEWER SYSTEM PIPES	SS	1910	103	75	9,437	96	\$2,251.00	\$2,138.45	\$112.55	\$221,284.32	\$210,220.10	\$11,064.22
COMBINED SYSTEMS PIPES	SC	1910	103	75	9,437	96	\$2,847.00	\$2,704.65	\$142.35	\$279,874.04	\$265,880.34	\$13,993.70
COMBINED SYSTEMS PIPES	SC	1910	103	75	9,437	96	\$6,082.00	\$5,777.90	\$304.10	\$597,890.38	\$567,995.86	\$29,894.52
COMBINED SYSTEMS PIPES	SC	1910	103	75	9,437	96	\$2,821.00	\$2,679.95	\$141.05	\$277,318.11	\$263,452.21	\$13,865.91
COMBINED SYSTEMS PIPES	SC	1910	103	75	9,437	96	\$98.00	\$93.10	\$4.90	\$9,633.88	\$9,152.19	\$481.69
SANITARY SEWER SYSTEM PIPES	SS	1911	102	75	9,437	93	\$1,925.00	\$1,828.75	\$96.25	\$195,341.34	\$185,574.27	\$9,767.07
SANITARY SEWER SYSTEM PIPES	SS	1911	102	75	9,437	93	\$2,250.00	\$2,137.50	\$112.50	\$228,321.05	\$216,905.00	\$11,416.05
SANITARY SEWER SYSTEM PIPES	SS	1911	102	75	9,437	93	\$3,663.00	\$3,479.85	\$183.15	\$371,706.67	\$353,121.33	\$18,585.33
SANITARY SEWER SYSTEM PIPES	SS	1911	102	75	9,437	93	\$11,043.00	\$10,490.85	\$552.15	\$1,120,599.71	\$1,064,569.72	\$56,029.99
SANITARY SEWER SYSTEM PIPES	SS	1911	102	75	9,437	93	\$5,614.00	\$5,333.30	\$280.70	\$569,686.38	\$541,202.07	\$28,484.32
COMBINED SYSTEMS PIPES	SC	1911	102	75	9,437	93	\$2,792.00	\$2,652.40	\$139.60	\$283,321.05	\$269,155.00	\$14,166.05
STORMWATER SEWER SYSTEM PIPES	SSW	1911	102	75	9,437	93	\$1,694.00	\$1,609.30	\$84.70	\$171,900.38	\$163,305.36	\$8,595.02
COMBINED SYSTEMS PIPES	SC	1911	102	75	9,437	93	\$8,728.00	\$8,291.60	\$436.40	\$885,682.72	\$841,398.58	\$44,284.14
COMBINED SYSTEMS PIPES	SC	1911	102	75	9,437	93	\$2,438.00	\$2,316.10	\$121.90	\$247,398.54	\$235,028.61	\$12,369.93
COMBINED SYSTEMS PIPES	SC	1911	102	75	9,437	93	\$4,272.00	\$4,058.40	\$213.60	\$433,505.56	\$411,830.29	\$21,675.28
COMBINED SYSTEMS PIPES	SC	1911	102	75	9,437	93	\$5,491.00	\$5,216.45	\$274.55	\$557,204.83	\$529,344.59	\$27,860.24
COMBINED SYSTEMS PIPES	SC	1911	102	75	9,437	93	\$13,126.00	\$12,469.70	\$656.30	\$1,331,974.26	\$1,265,375.55	\$66,598.71
COMBINED SYSTEMS PIPES	SC	1911	102	75	9,437	93	\$3,440.00	\$3,268.00	\$172.00	\$349,077.51	\$331,623.64	\$17,453.88
COMBINED SYSTEMS PIPES	SC	1911	102	75	9,437	93	\$2,060.00	\$1,957.00	\$103.00	\$209,040.60	\$198,588.57	\$10,452.03
STORMWATER SEWER SYSTEM PIPES	SSW	1912	101	75	9,437	91	\$1,191.00	\$1,131.45	\$59.55	\$123,514.16	\$117,338.45	\$6,175.71
COMBINED SYSTEMS PIPES	SC	1912	101	75	9,437	91	\$3,888.00	\$3,693.60	\$194.40	\$403,209.95	\$383,049.46	\$20,160.50
COMBINED SYSTEMS PIPES	SC	1912	101	75	9,437	91	\$727.00	\$690.65	\$36.35	\$75,394.45	\$71,624.73	\$3,769.72
COMBINED SYSTEMS PIPES	SC	1912	101	75	9,437	91	\$1,990.00	\$1,890.50	\$99.50	\$206,375.46	\$196,056.69	\$10,318.77
SANITARY SEWER SYSTEM PIPES	SS	1912	101	75	9,437	91	\$10,430.00	\$9,908.50	\$521.50	\$1,081,656.33	\$1,027,573.51	\$54,082.82
SANITARY SEWER SYSTEM PIPES	SS	1912	101	75	9,437	91	\$875.00	\$831.25	\$43.75	\$90,742.98	\$86,205.83	\$4,537.15
SANITARY SEWER SYSTEM PIPES	SS	1912	101	75	9,437	91	\$6,894.00	\$6,549.30	\$344.70	\$714,950.98	\$679,203.43	\$35,747.55
COMBINED SYSTEMS PIPES	SC	1912	101	75	9,437	91	\$2,448.00	\$2,325.60	\$122.40	\$253,872.93	\$241,179.29	\$12,693.65
COMBINED SYSTEMS PIPES	SC	1912	101	75	9,437	91	\$7,241.00	\$6,878.95	\$362.05	\$750,937.06	\$713,390.20	\$37,546.85
COMBINED SYSTEMS PIPES	SC	1912	101	75	9,437	91	\$1,769.00	\$1,680.55	\$88.45	\$183,456.38	\$174,283.56	\$9,172.82
COMBINED SYSTEMS PIPES	SC	1912	101	75	9,437	91	\$2,251.00	\$2,138.45	\$112.55	\$233,442.80	\$221,770.66	\$11,672.14
SANITARY SEWER SYSTEM PIPES	SS	1913	100	75	9,437	100	\$4,794.00	\$4,554.30	\$239.70	\$452,422.72	\$429,801.59	\$22,621.14
SANITARY SEWER SYSTEM PIPES	SS	1913	100	75	9,437	100	\$3,729.00	\$3,542.55	\$186.45	\$351,915.80	\$334,320.01	\$17,595.79
SANITARY SEWER SYSTEM PIPES	SS	1913	100	75	9,437	100	\$3,502.00	\$3,326.90	\$175.10	\$330,493.20	\$313,968.54	\$16,524.66
SANITARY SEWER SYSTEM PIPES	SS	1913	100	75	9,437	100	\$6,246.00	\$5,933.70	\$312.30	\$559,451.88	\$559,979.29	\$29,472.59
SANITARY SEWER SYSTEM PIPES	SS	1913	100	75	9,437	100	\$8,420.00	\$7,999.00	\$421.00	\$794,618.13	\$754,887.23	\$39,730.91
STORMWATER SEWER SYSTEM PIPES	SSW	1913	100	75	9,437	100	\$980.00	\$931.00	\$49.00	\$92,485.25	\$87,860.98	\$4,624.26
COMBINED SYSTEMS PIPES	SC	1913	100	75	9,437	100	\$8,709.00	\$8,273.55	\$435.45	\$821,891.84	\$780,797.25	\$41,094.59
COMBINED SYSTEMS PIPES	SC	1913	100	75	9,437	100	\$2,729.00	\$2,592.55	\$136.45	\$257,543.10	\$244,665.94	\$12,877.15
COMBINED SYSTEMS PIPES	SC	1913	100	75	9,437	100	\$966.00	\$917.70	\$48.30	\$91,164.03	\$86,605.83	\$4,558.20
COMBINED SYSTEMS PIPES	SC	1913	100	75	9,437	100	\$2,810.00	\$2,669.50	\$140.50	\$265,187.29	\$251,927.92	\$13,259.36
COMBINED SYSTEMS PIPES	SC	1914	99	75	9,437	89	\$8,892.00	\$8,447.40	\$444.60	\$942,878.71	\$895,734.77	\$47,143.94
COMBINED SYSTEMS PIPES	SC	1914	99	75	9,437	89	\$4,865.00	\$4,621.75	\$243.25	\$515,868.75	\$490,075.31	\$25,793.44

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1914	99	75	9,437	89	\$9,016.00	\$8,565.20	\$450.80	\$956,027.26	\$908,225.90	\$47,801.36
COMBINED SYSTEMS PIPES	SC	1914	99	75	9,437	89	\$4,645.00	\$4,412.75	\$232.25	\$492,540.66	\$467,913.63	\$24,627.03
COMBINED SYSTEMS PIPES	SC	1914	99	75	9,437	89	\$1,958.00	\$1,860.10	\$97.90	\$207,619.94	\$197,238.94	\$10,381.00
COMBINED SYSTEMS PIPES	SC	1914	99	75	9,437	89	\$3,781.00	\$3,591.95	\$189.05	\$400,924.92	\$380,878.67	\$20,046.25
STORMWATER SEWER SYSTEM PIPES	SSW	1914	99	75	9,437	89	\$4,091.00	\$3,886.45	\$204.55	\$433,796.31	\$412,106.49	\$21,689.82
STORMWATER SEWER SYSTEM PIPES	SSW	1914	99	75	9,437	89	\$1,704.00	\$1,618.80	\$85.20	\$180,686.61	\$171,652.28	\$9,034.33
COMBINED SYSTEMS PIPES	SC	1914	99	75	9,437	89	\$642.00	\$609.90	\$32.10	\$68,075.59	\$64,671.81	\$3,403.78
SANITARY SEWER SYSTEM PIPES	SS	1914	99	75	9,437	89	\$17,236.00	\$16,374.20	\$861.80	\$1,827,649.28	\$1,736,266.81	\$91,382.46
SANITARY SEWER SYSTEM PIPES	SS	1914	99	75	9,437	89	\$1,609.00	\$1,528.55	\$80.45	\$170,613.12	\$162,082.46	\$8,530.66
SANITARY SEWER SYSTEM PIPES	SS	1914	99	75	9,437	89	\$2,287.00	\$2,172.65	\$114.35	\$242,506.03	\$230,380.73	\$12,125.30
SANITARY SEWER SYSTEM PIPES	SS	1914	99	75	9,437	89	\$9,499.00	\$9,024.05	\$474.95	\$1,007,243.01	\$956,880.86	\$50,362.15
SANITARY SEWER SYSTEM PIPES	SS	1914	99	75	9,437	89	\$4,465.00	\$4,241.75	\$223.25	\$473,454.05	\$449,781.35	\$23,672.70
SANITARY SEWER SYSTEM PIPES	SS	1914	99	75	9,437	89	\$6,061.00	\$5,757.95	\$303.05	\$642,688.69	\$610,554.26	\$32,134.43
STORMWATER SEWER SYSTEM PIPES	SSW	1914	99	75	9,437	89	\$1,601.00	\$1,520.95	\$80.05	\$169,764.82	\$161,276.58	\$8,488.24
STORMWATER SEWER SYSTEM PIPES	SSW	1915	98	75	9,437	93	\$4,927.00	\$4,680.65	\$246.35	\$499,972.36	\$474,973.74	\$24,998.62
SANITARY SEWER SYSTEM PIPES	SS	1915	98	75	9,437	93	\$4,665.00	\$4,431.75	\$233.25	\$473,385.64	\$449,716.36	\$23,669.28
SANITARY SEWER SYSTEM PIPES	SS	1915	98	75	9,437	93	\$2,310.00	\$2,194.50	\$115.50	\$234,409.61	\$222,689.13	\$11,720.48
SANITARY SEWER SYSTEM PIPES	SS	1915	98	75	9,437	93	\$12,582.00	\$11,952.90	\$629.10	\$1,276,771.30	\$1,212,932.74	\$63,838.57
STORMWATER SEWER SYSTEM PIPES	SSW	1915	98	75	9,437	93	\$1,973.00	\$1,874.35	\$98.65	\$200,212.19	\$190,201.58	\$10,010.61
STORMWATER SEWER SYSTEM PIPES	SSW	1915	98	75	9,437	93	\$3,552.00	\$3,374.40	\$177.60	\$360,442.83	\$342,420.69	\$18,022.14
COMBINED SYSTEMS PIPES	SC	1915	98	75	9,437	93	\$4,620.00	\$4,389.00	\$231.00	\$468,819.22	\$445,378.26	\$23,440.96
COMBINED SYSTEMS PIPES	SC	1915	98	75	9,437	93	\$9,498.00	\$9,023.10	\$474.90	\$963,819.25	\$915,628.29	\$48,190.96
COMBINED SYSTEMS PIPES	SC	1915	98	75	9,437	93	\$2,051.00	\$1,948.45	\$102.55	\$208,127.32	\$197,720.95	\$10,406.37
COMBINED SYSTEMS PIPES	SC	1916	97	75	9,437	130	\$2,411.00	\$2,290.45	\$120.55	\$175,025.06	\$166,273.81	\$8,751.25
COMBINED SYSTEMS PIPES	SC	1916	97	75	9,437	130	\$4,444.00	\$4,221.80	\$222.20	\$322,609.45	\$306,478.97	\$16,130.47
COMBINED SYSTEMS PIPES	SC	1916	97	75	9,437	130	\$3,754.00	\$3,566.30	\$187.70	\$272,519.32	\$258,893.35	\$13,625.97
STORMWATER SEWER SYSTEM PIPES	SSW	1916	97	75	9,437	130	\$3,144.00	\$2,986.80	\$157.20	\$228,236.75	\$216,824.91	\$11,411.84
SANITARY SEWER SYSTEM PIPES	SS	1916	97	75	9,437	130	\$3,900.00	\$3,705.00	\$195.00	\$283,118.10	\$268,962.20	\$14,155.91
SANITARY SEWER SYSTEM PIPES	SS	1916	97	75	9,437	130	\$5,955.00	\$5,657.25	\$297.75	\$432,299.56	\$410,684.58	\$21,614.98
STORMWATER SEWER SYSTEM PIPES	SSW	1916	97	75	9,437	130	\$4,292.00	\$4,077.40	\$214.60	\$311,575.10	\$295,996.34	\$15,578.75
STORMWATER SEWER SYSTEM PIPES	SSW	1917	96	75	9,437	181	\$6,047.00	\$5,744.65	\$302.35	\$315,288.24	\$299,523.83	\$15,764.41
STORMWATER SEWER SYSTEM PIPES	SSW	1917	96	75	9,437	181	\$1,915.00	\$1,819.25	\$95.75	\$99,847.36	\$94,854.99	\$4,992.37
STORMWATER SEWER SYSTEM PIPES	SSW	1917	96	75	9,437	181	\$81.00	\$76.95	\$4.05	\$4,223.31	\$4,012.14	\$211.17
SANITARY SEWER SYSTEM PIPES	SS	1917	96	75	9,437	181	\$4,530.00	\$4,303.50	\$226.50	\$236,192.45	\$224,382.83	\$11,809.62
SANITARY SEWER SYSTEM PIPES	SS	1917	96	75	9,437	181	\$6,014.00	\$5,713.30	\$300.70	\$313,567.63	\$297,889.25	\$15,678.38
STORMWATER SEWER SYSTEM PIPES	SSW	1917	96	75	9,437	181	\$1,599.00	\$1,519.05	\$79.95	\$83,371.24	\$79,202.68	\$4,168.56
COMBINED SYSTEMS PIPES	SC	1917	96	75	9,437	181	\$2,071.00	\$1,967.45	\$103.55	\$107,981.14	\$102,582.08	\$5,399.06
COMBINED SYSTEMS PIPES	SC	1917	96	75	9,437	181	\$3,086.00	\$2,931.70	\$154.30	\$160,902.85	\$152,857.70	\$8,045.14
COMBINED SYSTEMS PIPES	SC	1917	96	75	9,437	181	\$2,118.00	\$2,012.10	\$105.90	\$110,431.70	\$104,910.12	\$5,521.59
COMBINED SYSTEMS PIPES	SC	1918	95	75	9,437	189	\$112.00	\$106.40	\$5.60	\$5,592.46	\$5,312.83	\$279.62
SANITARY SEWER SYSTEM PIPES	SS	1918	95	75	9,437	189	\$1,864.00	\$1,770.80	\$93.20	\$93,074.45	\$88,420.73	\$4,653.72
SANITARY SEWER SYSTEM PIPES	SS	1919	94	75	9,437	198	\$3,765.00	\$3,576.75	\$188.25	\$179,451.12	\$170,478.56	\$8,972.56
STORMWATER SEWER SYSTEM PIPES	SSW	1919	94	75	9,437	198	\$3,946.00	\$3,748.70	\$197.30	\$188,078.12	\$178,674.21	\$9,403.91
STORMWATER SEWER SYSTEM PIPES	SSW	1919	94	75	9,437	198	\$6,760.00	\$6,422.00	\$338.00	\$322,201.74	\$306,091.66	\$16,110.09
COMBINED SYSTEMS PIPES	SC	1919	94	75	9,437	198	\$7,928.00	\$7,531.60	\$396.40	\$377,872.10	\$358,978.50	\$18,893.61
COMBINED SYSTEMS PIPES	SC	1920	93	75	9,437	251	\$4,196.00	\$3,986.20	\$209.80	\$157,764.08	\$149,875.88	\$7,888.20
COMBINED SYSTEMS PIPES	SC	1920	93	75	9,437	251	\$1,487.00	\$1,412.65	\$74.35	\$55,909.24	\$53,113.78	\$2,795.46
STORMWATER SEWER SYSTEM PIPES	SSW	1920	93	75	9,437	251	\$2,948.00	\$2,800.60	\$147.40	\$110,840.92	\$105,298.88	\$5,542.05
SANITARY SEWER SYSTEM PIPES	SS	1920	93	75	9,437	251	\$4,049.00	\$3,846.55	\$202.45	\$152,237.08	\$144,625.22	\$7,611.85
SANITARY SEWER SYSTEM PIPES	SS	1920	93	75	9,437	251	\$17,216.00	\$16,355.20	\$860.80	\$647,298.97	\$614,934.02	\$32,364.95
SANITARY SEWER SYSTEM PIPES	SS	1921	92	75	9,437	202	\$18,114.00	\$17,208.30	\$905.70	\$846,270.84	\$803,957.29	\$42,313.54
SANITARY SEWER SYSTEM PIPES	SS	1921	92	75	9,437	202	\$19,394.00	\$18,424.30	\$969.70	\$906,071.36	\$860,767.79	\$45,303.57
SANITARY SEWER SYSTEM PIPES	SS	1921	92	75	9,437	202	\$12,312.00	\$11,696.40	\$615.60	\$575,206.28	\$546,445.96	\$28,760.31
SANITARY SEWER SYSTEM PIPES	SS	1921	92	75	9,437	202	\$11,978.00	\$11,379.10	\$598.90	\$559,602.08	\$531,621.98	\$27,980.10
STORMWATER SEWER SYSTEM PIPES	SSW	1921	92	75	9,437	202	\$7,737.00	\$7,350.15	\$386.85	\$361,466.13	\$343,392.82	\$18,073.31

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1921	92	75	9,437	202	\$2,257.00	\$2,144.15	\$112.85	\$105,445.14	\$100,172.88	\$5,272.26
COMBINED SYSTEMS PIPES	SC	1921	92	75	9,437	202	\$5,047.00	\$4,794.65	\$252.35	\$235,791.59	\$224,002.01	\$11,789.58
COMBINED SYSTEMS PIPES	SC	1921	92	75	9,437	202	\$9,118.00	\$8,662.10	\$455.90	\$425,985.29	\$404,686.02	\$21,299.26
COMBINED SYSTEMS PIPES	SC	1922	91	75	9,437	174	\$15,278.00	\$14,514.10	\$763.90	\$828,635.70	\$787,203.91	\$41,431.78
COMBINED SYSTEMS PIPES	SC	1922	91	75	9,437	174	\$7,176.00	\$6,817.20	\$358.80	\$389,206.03	\$369,745.73	\$19,460.30
STORMWATER SEWER SYSTEM PIPES	SSW	1922	91	75	9,437	174	\$691.00	\$656.45	\$34.55	\$37,477.89	\$35,604.00	\$1,873.89
SANITARY SEWER SYSTEM PIPES	SS	1922	91	75	9,437	174	\$9,174.00	\$8,715.30	\$458.70	\$497,571.93	\$472,693.33	\$24,878.60
SANITARY SEWER SYSTEM PIPES	SS	1922	91	75	9,437	174	\$618.00	\$587.10	\$30.90	\$33,518.58	\$31,842.65	\$1,675.93
SANITARY SEWER SYSTEM PIPES	SS	1922	91	75	9,437	174	\$11,055.00	\$10,502.25	\$552.75	\$599,592.07	\$569,612.46	\$29,979.60
SANITARY SEWER SYSTEM PIPES	SS	1923	90	75	9,437	214	\$20,990.00	\$19,940.50	\$1,049.50	\$925,646.25	\$879,363.94	\$46,282.31
SANITARY SEWER SYSTEM PIPES	SS	1923	90	75	9,437	214	\$19,026.00	\$18,074.70	\$951.30	\$839,035.04	\$797,083.29	\$41,951.75
SANITARY SEWER SYSTEM PIPES	SS	1923	90	75	9,437	214	\$11,428.00	\$10,856.60	\$571.40	\$503,967.86	\$478,769.46	\$25,198.39
SANITARY SEWER SYSTEM PIPES	SS	1923	90	75	9,437	214	\$5,640.00	\$5,358.00	\$282.00	\$248,720.57	\$236,284.55	\$12,436.03
STORMWATER SEWER SYSTEM PIPES	SSW	1923	90	75	9,437	214	\$70.00	\$66.50	\$3.50	\$3,086.96	\$2,932.61	\$154.35
STORMWATER SEWER SYSTEM PIPES	SSW	1923	90	75	9,437	214	\$1,635.00	\$1,553.25	\$81.75	\$72,102.51	\$68,497.38	\$3,605.13
SANITARY SEWER SYSTEM PIPES	SS	1923	90	75	9,437	214	\$44,727.00	\$42,490.65	\$2,236.35	\$1,972,433.53	\$1,873,811.85	\$98,621.68
STORMWATER SEWER SYSTEM PIPES	SSW	1923	90	75	9,437	214	\$3,495.00	\$3,320.25	\$174.75	\$154,127.38	\$146,421.01	\$7,706.37
STORMWATER SEWER SYSTEM PIPES	SSW	1923	90	75	9,437	214	\$12,607.00	\$11,976.65	\$630.35	\$555,961.04	\$528,162.99	\$27,798.05
STORMWATER SEWER SYSTEM PIPES	SSW	1923	90	75	9,437	214	\$20,271.00	\$19,257.45	\$1,013.55	\$893,938.79	\$849,241.85	\$44,696.94
STORMWATER SEWER SYSTEM PIPES	SSW	1923	90	75	9,437	214	\$9,046.00	\$8,593.70	\$452.30	\$398,923.10	\$378,976.95	\$19,946.16
STORMWATER SEWER SYSTEM PIPES	SSW	1923	90	75	9,437	214	\$11,013.00	\$10,462.35	\$550.65	\$485,666.61	\$461,383.28	\$24,283.33
STORMWATER SEWER SYSTEM PIPES	SSW	1923	90	75	9,437	214	\$13,684.00	\$12,999.80	\$684.20	\$603,456.09	\$573,283.28	\$30,172.80
STORMWATER SEWER SYSTEM PIPES	SSW	1923	90	75	9,437	214	\$5,694.00	\$5,409.30	\$284.70	\$251,101.94	\$238,546.84	\$12,555.10
COMBINED SYSTEMS PIPES	SC	1923	90	75	9,437	214	\$10,019.00	\$9,518.05	\$500.95	\$441,831.81	\$419,740.22	\$22,091.59
COMBINED SYSTEMS PIPES	SC	1923	90	75	9,437	214	\$1,447.00	\$1,374.65	\$72.35	\$63,811.82	\$60,621.23	\$3,190.59
COMBINED SYSTEMS PIPES	SC	1923	90	75	9,437	214	\$13,314.00	\$12,648.30	\$665.70	\$557,139.31	\$557,782.35	\$29,356.97
COMBINED SYSTEMS PIPES	SC	1923	90	75	9,437	214	\$932.00	\$885.40	\$46.60	\$41,100.63	\$39,045.60	\$2,055.03
COMBINED SYSTEMS PIPES	SC	1924	89	75	9,437	215	\$8,752.00	\$8,314.40	\$437.60	\$384,162.73	\$364,954.59	\$19,208.14
COMBINED SYSTEMS PIPES	SC	1924	89	75	9,437	215	\$6,588.00	\$6,258.60	\$329.40	\$289,175.51	\$274,716.73	\$14,458.78
COMBINED SYSTEMS PIPES	SC	1924	89	75	9,437	215	\$8,871.00	\$8,427.45	\$443.55	\$389,386.15	\$369,916.84	\$19,469.31
COMBINED SYSTEMS PIPES	SC	1924	89	75	9,437	215	\$1,244.00	\$1,181.80	\$62.20	\$54,604.48	\$51,874.26	\$2,730.22
STORMWATER SEWER SYSTEM PIPES	SSW	1924	89	75	9,437	215	\$9,278.00	\$8,814.10	\$463.90	\$407,251.12	\$386,888.57	\$20,362.56
STORMWATER SEWER SYSTEM PIPES	SSW	1924	89	75	9,437	215	\$5,899.00	\$5,604.05	\$294.95	\$258,932.35	\$245,985.73	\$12,946.62
STORMWATER SEWER SYSTEM PIPES	SSW	1924	89	75	9,437	215	\$13,454.00	\$12,781.30	\$672.70	\$590,553.63	\$561,025.95	\$29,527.68
STORMWATER SEWER SYSTEM PIPES	SSW	1924	89	75	9,437	215	\$35.00	\$33.25	\$1.75	\$1,536.30	\$1,459.48	\$76.81
SANITARY SEWER SYSTEM PIPES	SS	1924	89	75	9,437	215	\$29,159.00	\$27,701.05	\$1,457.95	\$1,279,913.28	\$1,215,917.62	\$63,995.66
SANITARY SEWER SYSTEM PIPES	SS	1924	89	75	9,437	215	\$4,625.00	\$4,393.75	\$231.25	\$203,011.04	\$192,860.49	\$10,150.55
SANITARY SEWER SYSTEM PIPES	SS	1924	89	75	9,437	215	\$3,782.00	\$3,592.90	\$189.10	\$166,008.16	\$157,707.76	\$8,300.41
SANITARY SEWER SYSTEM PIPES	SS	1924	89	75	9,437	215	\$9,202.00	\$8,741.90	\$460.10	\$403,915.16	\$383,719.40	\$20,195.76
SANITARY SEWER SYSTEM PIPES	SS	1924	89	75	9,437	215	\$18,337.00	\$17,420.15	\$916.85	\$804,889.40	\$764,644.93	\$40,244.47
SANITARY SEWER SYSTEM PIPES	SS	1925	88	75	9,437	207	\$10,795.00	\$10,255.25	\$539.75	\$492,151.35	\$467,543.78	\$24,607.57
SANITARY SEWER SYSTEM PIPES	SS	1925	88	75	9,437	207	\$1,159.00	\$1,101.05	\$57.95	\$52,839.59	\$50,197.61	\$2,641.98
SANITARY SEWER SYSTEM PIPES	SS	1925	88	75	9,437	207	\$18,802.00	\$17,861.90	\$940.10	\$857,195.90	\$814,336.10	\$42,859.79
STORMWATER SEWER SYSTEM PIPES	SSW	1925	88	75	9,437	207	\$2,248.00	\$2,135.60	\$112.40	\$102,487.84	\$97,363.45	\$5,124.39
STORMWATER SEWER SYSTEM PIPES	SSW	1925	88	75	9,437	207	\$7,096.00	\$6,741.20	\$354.80	\$323,511.44	\$307,335.87	\$16,175.57
COMBINED SYSTEMS PIPES	SC	1925	88	75	9,437	207	\$6,356.00	\$6,038.20	\$317.80	\$289,774.34	\$275,285.62	\$14,488.72
COMBINED SYSTEMS PIPES	SC	1925	88	75	9,437	207	\$464.00	\$440.80	\$23.20	\$21,154.07	\$20,096.37	\$1,057.70
COMBINED SYSTEMS PIPES	SC	1925	88	75	9,437	207	\$5,734.00	\$5,447.30	\$286.70	\$261,416.94	\$248,346.09	\$13,070.85
COMBINED SYSTEMS PIPES	SC	1926	87	75	9,437	208	\$7,244.00	\$6,881.80	\$362.20	\$328,671.08	\$312,237.52	\$16,433.55
COMBINED SYSTEMS PIPES	SC	1926	87	75	9,437	208	\$597.00	\$567.15	\$29.85	\$27,086.78	\$25,732.44	\$1,354.34
COMBINED SYSTEMS PIPES	SC	1926	87	75	9,437	208	\$4,130.00	\$3,923.50	\$206.50	\$187,384.26	\$178,015.04	\$9,369.21
COMBINED SYSTEMS PIPES	SC	1926	87	75	9,437	208	\$5,139.00	\$4,882.05	\$256.95	\$233,164.09	\$221,505.88	\$11,658.20
STORMWATER SEWER SYSTEM PIPES	SSW	1926	87	75	9,437	208	\$3,628.00	\$3,446.60	\$181.40	\$164,607.77	\$156,377.38	\$8,230.39
STORMWATER SEWER SYSTEM PIPES	SSW	1926	87	75	9,437	208	\$6,597.00	\$6,267.15	\$329.85	\$299,315.72	\$284,349.94	\$14,965.79
STORMWATER SEWER SYSTEM PIPES	SSW	1926	87	75	9,437	208	\$1,189.00	\$1,129.55	\$59.45	\$53,946.70	\$51,249.37	\$2,697.34

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
SANITARY SEWER SYSTEM PIPES	SS	1926	87	75	9,437	208	\$31,098.00	\$29,543.10	\$1,554.90	\$1,410,962.61	\$1,340,414.48	\$70,548.13
SANITARY SEWER SYSTEM PIPES	SS	1926	87	75	9,437	208	\$2,259.00	\$2,146.05	\$112.95	\$102,494.20	\$97,369.49	\$5,124.71
SANITARY SEWER SYSTEM PIPES	SS	1926	87	75	9,437	208	\$6,028.00	\$5,726.60	\$301.40	\$273,499.34	\$259,824.38	\$13,674.97
SANITARY SEWER SYSTEM PIPES	SS	1926	87	75	9,437	208	\$17,939.00	\$17,042.05	\$896.95	\$813,919.17	\$773,223.21	\$40,695.96
STORMWATER SEWER SYSTEM PIPES	SSW	1926	87	75	9,437	208	\$827.00	\$785.65	\$41.35	\$37,522.22	\$35,646.11	\$1,876.11
STORMWATER SEWER SYSTEM PIPES	SSW	1926	87	75	9,437	208	\$5,661.00	\$5,377.95	\$283.05	\$256,848.01	\$244,005.61	\$12,842.40
COMBINED SYSTEMS PIPES	SC	1926	87	75	9,437	208	\$2,957.00	\$2,809.15	\$147.85	\$134,163.50	\$127,455.32	\$6,708.17
COMBINED SYSTEMS PIPES	SC	1926	87	75	9,437	208	\$14,241.00	\$13,528.95	\$712.05	\$646,135.39	\$613,828.62	\$32,306.77
COMBINED SYSTEMS PIPES	SC	1926	87	75	9,437	208	\$2,321.00	\$2,204.95	\$116.05	\$105,307.23	\$100,041.87	\$5,265.36
COMBINED SYSTEMS PIPES	SC	1926	87	75	9,437	208	\$34.00	\$32.30	\$1.70	\$1,542.63	\$1,465.50	\$77.13
COMBINED SYSTEMS PIPES	SC	1927	86	75	9,437	206	\$334.00	\$317.30	\$16.70	\$15,301.20	\$14,536.14	\$765.06
STORMWATER SEWER SYSTEM PIPES	SSW	1927	86	75	9,437	206	\$3,239.00	\$3,077.05	\$161.95	\$148,385.04	\$140,965.78	\$7,419.25
STORMWATER SEWER SYSTEM PIPES	SSW	1927	86	75	9,437	206	\$4,396.00	\$4,176.20	\$219.80	\$201,389.51	\$191,320.03	\$10,069.48
STORMWATER SEWER SYSTEM PIPES	SSW	1927	86	75	9,437	206	\$20,577.00	\$19,548.15	\$1,028.85	\$942,673.32	\$895,539.66	\$47,133.67
STORMWATER SEWER SYSTEM PIPES	SSW	1927	86	75	9,437	206	\$18,240.00	\$17,328.00	\$912.00	\$835,610.70	\$793,830.17	\$41,780.54
COMBINED SYSTEMS PIPES	SC	1927	86	75	9,437	206	\$845.00	\$802.75	\$42.25	\$38,711.13	\$36,775.58	\$1,935.56
SANITARY SEWER SYSTEM PIPES	SS	1927	86	75	9,437	206	\$3,239.00	\$3,077.05	\$161.95	\$148,385.04	\$140,965.78	\$7,419.25
SANITARY SEWER SYSTEM PIPES	SS	1927	86	75	9,437	206	\$19,546.00	\$18,568.70	\$977.30	\$895,441.16	\$850,669.10	\$44,772.06
SANITARY SEWER SYSTEM PIPES	SS	1927	86	75	9,437	206	\$15,900.00	\$15,105.00	\$795.00	\$728,410.65	\$691,990.11	\$36,420.53
SANITARY SEWER SYSTEM PIPES	SS	1927	86	75	9,437	206	\$12,282.00	\$11,667.90	\$614.10	\$562,662.86	\$534,529.72	\$28,133.14
SANITARY SEWER SYSTEM PIPES	SS	1927	86	75	9,437	206	\$47,011.00	\$44,660.45	\$2,350.55	\$2,153,667.48	\$2,045,984.10	\$107,683.37
SANITARY SEWER SYSTEM PIPES	SS	1927	86	75	9,437	206	\$1,025.00	\$973.75	\$51.25	\$46,957.29	\$44,609.43	\$2,347.86
STORMWATER SEWER SYSTEM PIPES	SSW	1927	86	75	9,437	206	\$13,613.00	\$12,932.35	\$680.65	\$623,638.62	\$592,456.69	\$31,181.93
STORMWATER SEWER SYSTEM PIPES	SSW	1927	86	75	9,437	206	\$4,772.00	\$4,533.40	\$238.60	\$218,614.82	\$207,684.08	\$10,930.74
COMBINED SYSTEMS PIPES	SC	1927	86	75	9,437	206	\$222.00	\$210.90	\$11.10	\$10,170.26	\$9,661.75	\$508.51
COMBINED SYSTEMS PIPES	SC	1927	86	75	9,437	206	\$2,221.00	\$2,109.95	\$111.05	\$101,748.43	\$96,661.01	\$5,087.42
COMBINED SYSTEMS PIPES	SC	1927	86	75	9,437	206	\$1,868.00	\$1,774.60	\$93.40	\$85,576.80	\$81,297.96	\$4,278.84
COMBINED SYSTEMS PIPES	SC	1927	86	75	9,437	206	\$1,053.00	\$1,000.35	\$52.65	\$48,240.03	\$45,828.02	\$2,412.00
COMBINED SYSTEMS PIPES	SC	1927	86	75	9,437	206	\$2,011.00	\$1,910.45	\$100.55	\$92,127.91	\$87,521.52	\$4,606.40
COMBINED SYSTEMS PIPES	SC	1927	86	75	9,437	206	\$5,289.00	\$5,024.55	\$264.45	\$242,299.62	\$230,184.64	\$12,114.98
STORMWATER SEWER SYSTEM PIPES	SSW	1928	85	75	9,437	207	\$7,237.00	\$6,875.15	\$361.85	\$329,939.72	\$313,442.74	\$16,496.99
STORMWATER SEWER SYSTEM PIPES	SSW	1928	85	75	9,437	207	\$3,731.00	\$3,544.45	\$186.55	\$170,098.81	\$161,593.87	\$8,504.94
STORMWATER SEWER SYSTEM PIPES	SSW	1928	85	75	9,437	207	\$6,273.00	\$5,959.35	\$313.65	\$285,990.31	\$271,690.80	\$14,299.52
STORMWATER SEWER SYSTEM PIPES	SSW	1928	85	75	9,437	207	\$3,431.00	\$3,259.45	\$171.55	\$156,421.61	\$148,600.53	\$7,821.08
SANITARY SEWER SYSTEM PIPES	SS	1928	85	75	9,437	207	\$34,730.00	\$32,993.50	\$1,736.50	\$1,583,364.19	\$1,504,195.98	\$79,168.21
SANITARY SEWER SYSTEM PIPES	SS	1928	85	75	9,437	207	\$11,792.00	\$11,202.40	\$589.60	\$537,605.26	\$510,724.99	\$26,880.26
SANITARY SEWER SYSTEM PIPES	SS	1928	85	75	9,437	207	\$6,682.00	\$6,347.90	\$334.10	\$304,636.90	\$289,405.05	\$15,231.84
SANITARY SEWER SYSTEM PIPES	SS	1928	85	75	9,437	207	\$9,457.00	\$8,984.15	\$472.85	\$431,151.03	\$409,593.47	\$21,557.55
SANITARY SEWER SYSTEM PIPES	SS	1928	85	75	9,437	207	\$9,890.00	\$9,395.50	\$494.50	\$450,891.79	\$428,347.20	\$22,544.59
STORMWATER SEWER SYSTEM PIPES	SSW	1928	85	75	9,437	207	\$6,280.00	\$5,966.00	\$314.00	\$286,309.45	\$271,993.97	\$14,315.47
STORMWATER SEWER SYSTEM PIPES	SSW	1928	85	75	9,437	207	\$12,634.00	\$12,002.30	\$631.70	\$575,992.60	\$547,192.97	\$28,799.63
STORMWATER SEWER SYSTEM PIPES	SSW	1928	85	75	9,437	207	\$1,139.00	\$1,082.05	\$56.95	\$51,927.78	\$49,331.39	\$2,596.39
STORMWATER SEWER SYSTEM PIPES	SSW	1928	85	75	9,437	207	\$8,267.00	\$7,853.65	\$413.35	\$376,898.12	\$358,053.22	\$18,844.91
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$90.00	\$85.50	\$4.50	\$4,103.16	\$3,898.00	\$205.16
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$11,550.00	\$10,972.50	\$577.50	\$526,572.31	\$500,243.70	\$26,328.62
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$2,117.00	\$2,011.15	\$105.85	\$96,515.46	\$91,689.69	\$4,825.77
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$5,220.00	\$4,959.00	\$261.00	\$237,983.33	\$226,084.16	\$11,899.17
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$354.00	\$336.30	\$17.70	\$16,139.10	\$15,332.14	\$806.95
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$17,615.00	\$16,734.25	\$880.75	\$803,079.76	\$762,925.78	\$40,153.99
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$3,633.00	\$3,451.35	\$181.65	\$165,630.93	\$157,349.38	\$8,281.55
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$5,259.00	\$4,996.05	\$262.95	\$239,761.37	\$227,773.30	\$11,988.07
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$3,697.00	\$3,512.15	\$184.85	\$168,548.73	\$160,121.29	\$8,427.44
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$2,716.00	\$2,580.20	\$135.80	\$123,824.28	\$117,633.06	\$6,191.21
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$1,222.00	\$1,160.90	\$61.10	\$55,711.81	\$52,926.22	\$2,785.59
COMBINED SYSTEMS PIPES	SC	1928	85	75	9,437	207	\$1,347.00	\$1,279.65	\$67.35	\$61,410.64	\$58,340.11	\$3,070.53

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1929	84	75	9,437	207	\$4,378.00	\$4,159.10	\$218.90	\$199,595.98	\$189,616.18	\$9,979.80
COMBINED SYSTEMS PIPES	SC	1929	84	75	9,437	207	\$1,636.00	\$1,554.20	\$81.80	\$74,586.35	\$70,857.03	\$3,729.32
COMBINED SYSTEMS PIPES	SC	1929	84	75	9,437	207	\$5,201.00	\$4,940.95	\$260.05	\$237,117.11	\$225,261.25	\$11,855.86
COMBINED SYSTEMS PIPES	SC	1929	84	75	9,437	207	\$10,553.00	\$10,025.35	\$527.65	\$481,118.41	\$457,062.49	\$24,055.92
COMBINED SYSTEMS PIPES	SC	1929	84	75	9,437	207	\$1,549.00	\$1,471.55	\$77.45	\$70,619.96	\$67,088.96	\$3,531.00
COMBINED SYSTEMS PIPES	SC	1929	84	75	9,437	207	\$2,840.00	\$2,698.00	\$142.00	\$129,477.52	\$123,003.64	\$6,473.88
COMBINED SYSTEMS PIPES	SC	1929	84	75	9,437	207	\$4,665.00	\$4,431.75	\$233.25	\$212,680.51	\$202,046.48	\$10,634.03
COMBINED SYSTEMS PIPES	SC	1929	84	75	9,437	207	\$84.00	\$79.80	\$4.20	\$3,829.62	\$3,638.14	\$191.48
COMBINED SYSTEMS PIPES	SC	1929	84	75	9,437	207	\$911.00	\$865.45	\$45.55	\$41,533.11	\$39,456.45	\$2,076.66
STORMWATER SEWER SYSTEM PIPES	SSW	1929	84	75	9,437	207	\$9,100.00	\$8,645.00	\$455.00	\$414,875.15	\$394,131.40	\$20,743.76
SANITARY SEWER SYSTEM PIPES	SS	1929	84	75	9,437	207	\$1,237.00	\$1,175.15	\$61.85	\$56,395.67	\$53,575.88	\$2,819.78
STORMWATER SEWER SYSTEM PIPES	SSW	1929	84	75	9,437	207	\$8,842.00	\$8,399.90	\$442.10	\$403,112.76	\$382,957.12	\$20,155.64
STORMWATER SEWER SYSTEM PIPES	SSW	1930	83	75	9,437	203	\$7,830.00	\$7,438.50	\$391.50	\$364,008.99	\$345,808.54	\$18,200.45
STORMWATER SEWER SYSTEM PIPES	SSW	1930	83	75	9,437	203	\$842.00	\$799.90	\$42.10	\$39,143.75	\$37,186.56	\$1,957.19
SANITARY SEWER SYSTEM PIPES	SS	1930	83	75	9,437	203	\$2,225.00	\$2,113.75	\$111.25	\$103,438.06	\$98,266.15	\$5,171.90
COMBINED SYSTEMS PIPES	SC	1930	83	75	9,437	203	\$4,881.00	\$4,636.95	\$244.05	\$226,912.88	\$215,567.24	\$11,345.64
COMBINED SYSTEMS PIPES	SC	1930	83	75	9,437	203	\$12,526.00	\$11,899.70	\$626.30	\$582,321.40	\$553,205.33	\$29,116.07
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$1,661.00	\$1,577.95	\$83.05	\$86,603.90	\$82,273.70	\$4,330.19
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$6,621.00	\$6,289.95	\$331.05	\$345,216.38	\$327,955.56	\$17,260.82
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$8,032.00	\$7,630.40	\$401.60	\$418,785.37	\$397,846.11	\$20,939.27
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$11,974.00	\$11,375.30	\$598.70	\$624,319.73	\$593,103.74	\$31,215.99
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$419.00	\$398.05	\$20.95	\$21,846.50	\$20,754.17	\$1,092.32
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$3,585.00	\$3,405.75	\$179.25	\$186,920.51	\$177,574.49	\$9,346.03
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$28,270.00	\$26,856.50	\$1,413.50	\$1,473,986.87	\$1,400,287.52	\$73,699.34
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$923.00	\$876.85	\$46.15	\$48,124.86	\$45,718.62	\$2,406.24
STORMWATER SEWER SYSTEM PIPES	SSW	1931	82	75	9,437	181	\$8,777.00	\$8,338.15	\$438.85	\$457,629.39	\$434,747.92	\$22,881.47
STORMWATER SEWER SYSTEM PIPES	SSW	1931	82	75	9,437	181	\$1,598.00	\$1,518.10	\$79.90	\$83,319.10	\$79,153.15	\$4,165.96
SANITARY SEWER SYSTEM PIPES	SS	1931	82	75	9,437	181	\$11,116.00	\$10,560.20	\$555.80	\$579,583.94	\$550,604.74	\$28,979.20
SANITARY SEWER SYSTEM PIPES	SS	1931	82	75	9,437	181	\$4,360.00	\$4,142.00	\$218.00	\$227,328.71	\$215,966.44	\$11,366.44
STORMWATER SEWER SYSTEM PIPES	SSW	1931	82	75	9,437	181	\$6,523.00	\$6,196.85	\$326.15	\$340,106.70	\$323,101.36	\$17,005.33
STORMWATER SEWER SYSTEM PIPES	SSW	1931	82	75	9,437	181	\$1,998.00	\$1,898.10	\$99.90	\$104,174.95	\$98,966.20	\$5,208.75
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$16,455.00	\$15,632.25	\$822.75	\$857,957.34	\$815,059.47	\$42,897.87
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$12,302.00	\$11,686.90	\$615.10	\$641,421.52	\$609,350.45	\$32,071.08
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$4,984.00	\$4,734.80	\$249.20	\$259,863.83	\$246,870.64	\$12,993.19
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$1,848.00	\$1,755.60	\$92.40	\$96,354.01	\$91,536.31	\$4,817.70
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$1,358.00	\$1,290.10	\$67.90	\$70,805.59	\$67,265.32	\$3,540.28
COMBINED SYSTEMS PIPES	SC	1931	82	75	9,437	181	\$1,602.00	\$1,521.90	\$80.10	\$83,527.66	\$79,351.28	\$4,176.38
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$6,663.00	\$6,329.85	\$333.15	\$400,512.93	\$380,487.28	\$20,025.65
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$31,637.00	\$30,055.15	\$1,581.85	\$1,901,700.07	\$1,806,615.07	\$95,085.00
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$4,090.00	\$3,885.50	\$204.50	\$245,849.90	\$233,557.41	\$12,292.50
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$6,884.00	\$6,539.80	\$344.20	\$413,797.24	\$393,107.38	\$20,689.86
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$2,332.00	\$2,215.40	\$116.60	\$140,176.52	\$133,167.69	\$7,008.83
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$25,597.00	\$24,317.15	\$1,279.85	\$1,538,635.67	\$1,461,703.89	\$76,931.78
STORMWATER SEWER SYSTEM PIPES	SSW	1932	81	75	9,437	157	\$86.00	\$81.70	\$4.30	\$5,169.46	\$4,910.99	\$258.47
SANITARY SEWER SYSTEM PIPES	SS	1932	81	75	9,437	157	\$6,368.00	\$6,049.60	\$318.40	\$382,780.48	\$363,641.46	\$19,139.02
STORMWATER SEWER SYSTEM PIPES	SSW	1932	81	75	9,437	157	\$7,121.00	\$6,764.95	\$356.05	\$428,043.31	\$406,641.14	\$21,402.17
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$394.00	\$374.30	\$19.70	\$23,683.34	\$22,499.17	\$1,184.17
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$340.00	\$323.00	\$17.00	\$20,437.40	\$19,415.53	\$1,021.87
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$2,617.00	\$2,486.15	\$130.85	\$157,307.87	\$149,442.48	\$7,865.39
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$12,616.00	\$11,985.20	\$630.80	\$758,347.76	\$720,430.37	\$37,917.39
COMBINED SYSTEMS PIPES	SC	1932	81	75	9,437	157	\$4,214.00	\$4,003.30	\$210.70	\$253,303.54	\$240,638.36	\$12,665.18
STORMWATER SEWER SYSTEM PIPES	SSW	1933	80	75	9,437	170	\$1,520.00	\$1,444.00	\$76.00	\$84,380.30	\$80,161.28	\$4,219.01
COMBINED SYSTEMS PIPES	SC	1933	80	75	9,437	170	\$1,920.00	\$1,824.00	\$96.00	\$106,585.64	\$101,256.36	\$5,329.28
COMBINED SYSTEMS PIPES	SC	1933	80	75	9,437	170	\$52.00	\$49.40	\$2.60	\$2,886.69	\$2,742.36	\$144.33
COMBINED SYSTEMS PIPES	SC	1933	80	75	9,437	170	\$200.00	\$190.00	\$10.00	\$11,102.67	\$10,547.54	\$555.13

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1933	80	75	9,437	170	\$6,014.00	\$5,713.30	\$300.70	\$333,857.30	\$317,164.44	\$16,692.87
COMBINED SYSTEMS PIPES	SC	1934	79	75	9,437	198	\$2,609.00	\$2,478.55	\$130.45	\$124,352.71	\$118,135.08	\$6,217.64
SANITARY SEWER SYSTEM PIPES	SS	1934	79	75	9,437	198	\$625.00	\$593.75	\$31.25	\$29,789.36	\$28,299.89	\$1,489.47
STORMWATER SEWER SYSTEM PIPES	SSW	1934	79	75	9,437	198	\$28,086.00	\$26,681.70	\$1,404.30	\$1,338,662.45	\$1,271,729.33	\$66,933.12
SANITARY SEWER SYSTEM PIPES	SS	1935	78	75	9,437	196	\$2,304.00	\$2,188.80	\$115.20	\$110,936.07	\$105,389.27	\$5,546.80
COMBINED SYSTEMS PIPES	SC	1935	78	75	9,437	196	\$1,795.00	\$1,705.25	\$89.75	\$86,428.06	\$82,106.66	\$4,321.40
SANITARY SEWER SYSTEM PIPES	SS	1936	77	75	9,437	206	\$4,619.00	\$4,388.05	\$230.95	\$211,605.58	\$201,025.30	\$10,580.28
SANITARY SEWER SYSTEM PIPES	SS	1936	77	75	9,437	206	\$3,613.00	\$3,432.35	\$180.65	\$165,518.72	\$157,242.78	\$8,275.94
SANITARY SEWER SYSTEM PIPES	SS	1937	76	75	9,437	235	\$1,712.00	\$1,626.40	\$85.60	\$68,751.52	\$65,313.94	\$3,437.58
COMBINED SYSTEMS PIPES	SC	1937	76	75	9,437	235	\$1,736.00	\$1,649.20	\$86.80	\$69,715.32	\$66,229.56	\$3,485.77
COMBINED SYSTEMS PIPES	SC	1937	76	75	9,437	235	\$7,699.00	\$7,314.05	\$384.95	\$309,181.03	\$293,721.98	\$15,459.05
COMBINED SYSTEMS PIPES	SC	1937	76	75	9,437	235	\$3,325.00	\$3,158.75	\$166.25	\$133,527.33	\$126,850.96	\$6,676.37
COMBINED SYSTEMS PIPES	SC	1938	75	75	9,437	236	\$3,133.00	\$2,976.35	\$156.65	\$125,283.76	\$119,019.57	\$6,264.19
COMBINED SYSTEMS PIPES	SC	1938	75	75	9,437	236	\$3,641.00	\$3,458.95	\$182.05	\$145,597.88	\$138,317.99	\$7,279.89
SANITARY SEWER SYSTEM PIPES	SS	1938	75	75	9,437	236	\$5,902.00	\$5,606.90	\$295.10	\$236,011.73	\$224,211.14	\$11,800.59
STORMWATER SEWER SYSTEM PIPES	SSW	1938	75	75	9,437	236	\$2,759.00	\$2,621.05	\$137.95	\$110,328.08	\$104,811.68	\$5,516.40
COMBINED SYSTEMS PIPES	SC	1939	74	75	9,437	236	\$3,452.00	\$3,279.40	\$172.60	\$138,040.07	\$131,138.06	\$6,902.00
SANITARY SEWER SYSTEM PIPES	SS	1939	74	75	9,437	236	\$16,087.00	\$15,282.65	\$804.35	\$643,293.91	\$611,129.21	\$32,164.70
SANITARY SEWER SYSTEM PIPES	SS	1939	74	75	9,437	236	\$2,926.00	\$2,779.70	\$146.30	\$117,006.15	\$111,155.84	\$5,850.31
COMBINED SYSTEMS PIPES	SC	1939	74	75	9,437	236	\$3,310.00	\$3,144.50	\$165.50	\$132,361.71	\$125,743.63	\$6,618.09
COMBINED SYSTEMS PIPES	SC	1939	74	75	9,437	236	\$3,439.00	\$3,267.05	\$171.95	\$137,520.22	\$130,644.21	\$6,876.01
COMBINED SYSTEMS PIPES	SC	1939	74	75	9,437	236	\$3,762.00	\$3,573.90	\$188.10	\$150,436.48	\$142,914.66	\$7,521.82
COMBINED SYSTEMS PIPES	SC	1940	73	75	9,437	242	\$6,669.00	\$6,335.55	\$333.45	\$260,070.88	\$247,067.34	\$13,003.54
SANITARY SEWER SYSTEM PIPES	SS	1940	73	75	9,437	242	\$2,462.00	\$2,338.90	\$123.10	\$96,010.57	\$91,210.04	\$4,800.53
COMBINED SYSTEMS PIPES	SC	1940	73	75	9,437	242	\$114.00	\$108.30	\$5.70	\$4,445.66	\$4,223.37	\$222.28
COMBINED SYSTEMS PIPES	SC	1940	73	75	9,437	242	\$7,618.00	\$7,237.10	\$380.90	\$297,079.02	\$282,225.07	\$14,853.95
COMBINED SYSTEMS PIPES	SC	1940	73	75	9,437	242	\$2,664.00	\$2,530.80	\$133.20	\$103,887.96	\$98,693.57	\$5,194.40
SANITARY SEWER SYSTEM PIPES	SS	1941	72	75	9,437	258	\$2,166.00	\$2,057.70	\$108.30	\$79,229.17	\$75,267.72	\$3,961.46
COMBINED SYSTEMS PIPES	SC	1941	72	75	9,437	258	\$8,033.00	\$7,631.35	\$401.65	\$279,835.62	\$279,143.84	\$14,691.78
COMBINED SYSTEMS PIPES	SC	1941	72	75	9,437	258	\$3,398.00	\$3,228.10	\$169.90	\$124,293.97	\$118,079.27	\$6,214.70
COMBINED SYSTEMS PIPES	SC	1942	71	75	9,437	276	\$436.00	\$412.75	\$23.25	\$14,908.15	\$14,113.05	\$795.10
COMBINED SYSTEMS PIPES	SC	1942	71	75	9,437	276	\$1,234.00	\$1,168.19	\$65.81	\$42,194.17	\$39,943.82	\$2,250.36
COMBINED SYSTEMS PIPES	SC	1942	71	75	9,437	276	\$1,085.00	\$1,027.13	\$57.87	\$37,099.41	\$35,120.78	\$1,978.64
SANITARY SEWER SYSTEM PIPES	SS	1942	71	75	9,437	276	\$713.00	\$674.97	\$38.03	\$24,379.61	\$23,079.37	\$1,300.25
COMBINED SYSTEMS PIPES	SC	1942	71	75	9,437	276	\$1,978.00	\$1,872.51	\$105.49	\$67,633.77	\$64,026.63	\$3,607.13
STORMWATER SEWER SYSTEM PIPES	SSW	1942	71	75	9,437	276	\$758.00	\$717.57	\$40.43	\$25,918.30	\$24,535.99	\$1,382.31
SANITARY SEWER SYSTEM PIPES	SS	1943	70	75	9,437	290	\$10,058.00	\$9,387.47	\$670.53	\$327,310.56	\$305,489.85	\$21,820.70
STORMWATER SEWER SYSTEM PIPES	SSW	1943	70	75	9,437	290	\$2,394.00	\$2,234.40	\$159.60	\$77,906.29	\$72,712.54	\$5,193.75
COMBINED SYSTEMS PIPES	SC	1943	70	75	9,437	290	\$1,025.00	\$956.67	\$68.33	\$33,355.87	\$31,132.14	\$2,223.72
COMBINED SYSTEMS PIPES	SC	1943	70	75	9,437	290	\$2,304.00	\$2,150.40	\$153.60	\$74,977.48	\$69,978.98	\$4,998.50
COMBINED SYSTEMS PIPES	SC	1944	69	75	9,437	299	\$1,754.00	\$1,613.68	\$140.32	\$55,361.11	\$50,932.22	\$4,428.89
COMBINED SYSTEMS PIPES	SC	1944	69	75	9,437	299	\$1,846.00	\$1,698.32	\$147.68	\$58,264.88	\$53,603.69	\$4,661.19
STORMWATER SEWER SYSTEM PIPES	SSW	1944	69	75	9,437	299	\$5,169.00	\$4,755.48	\$413.52	\$163,147.99	\$150,096.15	\$13,051.84
SANITARY SEWER SYSTEM PIPES	SS	1944	69	75	9,437	299	\$6,816.00	\$6,270.72	\$545.28	\$215,131.88	\$197,921.33	\$17,210.55
COMBINED SYSTEMS PIPES	SC	1944	69	75	9,437	299	\$1,467.00	\$1,349.64	\$117.36	\$46,302.59	\$42,598.38	\$3,704.21
SANITARY SEWER SYSTEM PIPES	SS	1945	68	75	9,437	308	\$2,147.00	\$1,946.61	\$200.39	\$65,785.13	\$59,645.18	\$6,139.95
COMBINED SYSTEMS PIPES	SC	1945	68	75	9,437	308	\$72.00	\$65.28	\$6.72	\$2,206.12	\$2,000.21	\$205.90
SANITARY SEWER SYSTEM PIPES	SS	1946	67	75	9,437	346	\$4,088.00	\$3,651.95	\$436.05	\$111,501.62	\$99,608.11	\$11,893.51
STORMWATER SEWER SYSTEM PIPES	SSW	1946	67	75	9,437	346	\$2,325.00	\$2,077.00	\$248.00	\$63,415.18	\$56,650.90	\$6,764.29
STORMWATER SEWER SYSTEM PIPES	SSW	1946	67	75	9,437	346	\$7,014.00	\$6,265.84	\$748.16	\$191,309.28	\$170,902.96	\$20,406.32
STORMWATER SEWER SYSTEM PIPES	SSW	1946	67	75	9,437	346	\$1,884.00	\$1,683.04	\$200.96	\$51,386.75	\$45,905.50	\$5,481.25
STORMWATER SEWER SYSTEM PIPES	SSW	1947	66	75	9,437	413	\$1,088.00	\$957.44	\$130.56	\$24,861.38	\$21,878.01	\$2,983.37
STORMWATER SEWER SYSTEM PIPES	SSW	1947	66	75	9,437	413	\$3,761.00	\$3,309.68	\$451.32	\$85,940.85	\$75,627.95	\$10,312.90
SANITARY SEWER SYSTEM PIPES	SS	1947	66	75	9,437	413	\$5,441.00	\$4,788.08	\$652.92	\$124,329.75	\$109,410.18	\$14,919.57
SANITARY SEWER SYSTEM PIPES	SS	1947	66	75	9,437	413	\$6,431.00	\$5,659.28	\$771.72	\$146,951.78	\$129,317.56	\$17,634.21

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjsted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
SANITARY SEWER SYSTEM PIPES	SS	1947	66	75	9,437	413	\$3,917.00	\$3,446.96	\$470.04	\$89,505.54	\$78,764.87	\$10,740.66
STORMWATER SEWER SYSTEM PIPES	SSW	1947	66	75	9,437	413	\$222.00	\$195.36	\$26.64	\$5,072.82	\$4,464.08	\$608.74
COMBINED SYSTEMS PIPES	SC	1947	66	75	9,437	413	\$15,247.00	\$13,417.36	\$1,829.64	\$348,402.07	\$306,593.82	\$41,808.25
COMBINED SYSTEMS PIPES	SC	1947	66	75	9,437	413	\$3,977.00	\$3,499.76	\$477.24	\$90,876.57	\$79,971.38	\$10,905.19
COMBINED SYSTEMS PIPES	SC	1947	66	75	9,437	413	\$18,162.00	\$15,982.56	\$2,179.44	\$415,011.37	\$365,210.01	\$49,801.36
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$67,499.00	\$58,499.13	\$8,999.87	\$1,381,792.38	\$1,197,553.40	\$184,238.98
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$10,504.00	\$9,103.47	\$1,400.53	\$215,030.55	\$186,359.81	\$28,670.74
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$32,755.00	\$28,387.67	\$4,367.33	\$670,537.48	\$581,132.48	\$89,405.00
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$629.00	\$545.13	\$83.87	\$12,876.45	\$11,159.59	\$1,716.86
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$3,849.00	\$3,335.80	\$513.20	\$78,794.04	\$68,288.17	\$10,505.87
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$35,795.00	\$31,022.33	\$4,772.67	\$732,770.24	\$635,067.54	\$97,702.70
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$32,023.00	\$27,753.27	\$4,269.73	\$655,552.49	\$568,145.49	\$87,407.00
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$11,781.00	\$10,210.20	\$1,570.80	\$241,172.40	\$209,016.08	\$32,156.32
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$8,744.00	\$7,578.13	\$1,165.87	\$179,001.06	\$155,134.25	\$23,866.81
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$55,181.00	\$47,823.53	\$7,357.47	\$1,129,626.89	\$979,009.97	\$150,616.92
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$13,763.00	\$11,927.93	\$1,835.07	\$281,746.52	\$244,180.32	\$37,566.20
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$59,950.00	\$51,956.67	\$7,993.33	\$1,227,254.53	\$1,063,620.59	\$163,633.94
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$23,163.00	\$20,074.60	\$3,088.40	\$474,176.76	\$410,953.19	\$63,223.57
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$6,384.00	\$5,532.80	\$851.20	\$130,688.79	\$113,263.62	\$17,425.17
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$3,617.00	\$3,134.73	\$482.27	\$74,044.70	\$64,172.07	\$9,872.63
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$1,231.00	\$1,066.87	\$164.13	\$25,200.17	\$21,840.15	\$3,360.02
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$17,989.00	\$15,590.47	\$2,398.53	\$368,258.24	\$319,157.14	\$49,101.10
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$1,901.00	\$1,647.53	\$253.47	\$38,915.94	\$33,727.15	\$5,188.79
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$3,422.00	\$2,965.73	\$456.27	\$70,052.79	\$60,712.42	\$9,340.37
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$20,066.00	\$17,390.53	\$2,675.47	\$410,777.14	\$356,006.85	\$54,770.28
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$23,673.00	\$20,516.60	\$3,156.40	\$484,617.12	\$420,001.50	\$64,615.62
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$11,679.00	\$10,121.80	\$1,557.20	\$239,084.33	\$207,206.42	\$31,877.91
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$5,511.00	\$4,776.20	\$734.80	\$112,817.34	\$97,775.03	\$15,042.31
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$978.00	\$847.60	\$130.40	\$20,020.93	\$17,351.48	\$2,669.46
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$1,676.00	\$1,452.53	\$223.47	\$34,309.90	\$29,735.25	\$4,574.65
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$2,490.00	\$2,158.00	\$332.00	\$50,973.54	\$44,177.07	\$6,796.47
COMBINED SYSTEMS PIPE	SC	1948	65	75	9,437	461	\$363.00	\$314.60	\$48.40	\$7,431.08	\$6,440.27	\$990.81
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$35,424.00	\$30,700.80	\$4,723.20	\$725,175.38	\$628,485.33	\$96,690.05
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$6,171.00	\$5,348.20	\$822.80	\$126,328.40	\$109,484.61	\$16,843.79
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$8,550.00	\$7,410.00	\$1,140.00	\$175,029.63	\$151,692.34	\$23,337.28
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$16,052.00	\$13,911.73	\$2,140.27	\$328,605.33	\$284,791.29	\$43,814.04
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$6,411.00	\$5,556.20	\$854.80	\$131,241.51	\$113,742.65	\$17,498.87
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$9,927.00	\$8,603.40	\$1,323.60	\$203,218.61	\$176,122.80	\$27,095.81
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$785.00	\$680.33	\$104.67	\$16,069.97	\$13,927.31	\$2,142.66
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$1,760.00	\$1,525.33	\$234.67	\$36,029.49	\$31,225.56	\$4,803.93
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$8,929.00	\$7,738.47	\$1,190.53	\$182,788.25	\$158,416.48	\$24,371.77
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$24,340.00	\$21,094.67	\$3,245.33	\$498,271.48	\$431,835.28	\$66,436.20
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$1,127.00	\$976.73	\$150.27	\$23,071.16	\$19,995.00	\$3,076.15
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$41,637.00	\$36,085.40	\$5,551.60	\$852,363.58	\$738,715.10	\$113,648.48
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$28,337.00	\$24,558.73	\$3,778.27	\$580,095.27	\$502,749.23	\$77,346.04
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$19,277.00	\$16,706.73	\$2,570.27	\$394,625.28	\$342,008.58	\$52,616.70
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$64,792.00	\$56,153.07	\$8,638.93	\$1,326,376.57	\$1,149,526.36	\$176,850.21
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$1,845.00	\$1,599.00	\$246.00	\$37,769.55	\$32,733.61	\$5,035.94
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$983.00	\$851.93	\$131.07	\$20,123.29	\$17,440.18	\$2,683.11
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$11,064.00	\$9,588.80	\$1,475.20	\$226,494.48	\$196,295.22	\$30,199.26
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$6,094.00	\$5,281.47	\$812.53	\$124,752.11	\$108,118.50	\$16,633.61
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$10,704.00	\$9,276.80	\$1,427.20	\$219,124.81	\$189,908.17	\$29,216.64
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$425.00	\$368.33	\$56.67	\$8,700.30	\$7,540.26	\$1,160.04
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$3,250.00	\$2,816.67	\$433.33	\$66,531.73	\$57,660.83	\$8,870.90
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$9,613.00	\$8,331.27	\$1,281.73	\$196,790.62	\$170,551.87	\$26,238.75

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$22,189.00	\$19,230.47	\$2,958.53	\$454,237.71	\$393,672.68	\$60,565.03
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$818.00	\$708.93	\$109.07	\$16,745.52	\$14,512.79	\$2,232.74
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$2,518.00	\$2,182.27	\$335.73	\$51,546.74	\$44,673.84	\$6,872.90
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$2,535.00	\$2,197.00	\$338.00	\$51,894.75	\$44,975.45	\$6,919.30
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$6,512.00	\$5,643.73	\$868.27	\$133,309.12	\$115,534.57	\$17,774.55
COMBINED SYSTEMS PIPES	SC	1948	65	75	9,437	461	\$239.00	\$207.13	\$31.87	\$4,892.64	\$4,240.29	\$652.35
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$587.00	\$508.73	\$78.27	\$12,016.65	\$10,414.43	\$1,602.22
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$1,724.00	\$1,494.13	\$229.87	\$35,292.52	\$30,586.85	\$4,705.67
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$31,768.00	\$27,532.27	\$4,235.73	\$650,332.31	\$563,621.33	\$86,710.97
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$34,546.00	\$29,939.87	\$4,606.13	\$707,201.58	\$612,908.04	\$94,293.54
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$11,306.00	\$9,798.53	\$1,507.47	\$231,448.53	\$200,588.73	\$30,859.80
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$68,666.00	\$59,510.53	\$9,155.47	\$1,405,682.39	\$1,218,258.07	\$187,424.32
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$53,141.00	\$46,055.53	\$7,085.47	\$1,087,865.43	\$942,816.71	\$145,048.72
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$3,948.00	\$3,421.60	\$526.40	\$80,820.70	\$70,044.61	\$10,776.09
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$24,493.00	\$21,227.27	\$3,265.73	\$501,403.59	\$434,549.78	\$66,853.81
SANITARY SEWER SYSTEM PIPES	SS	1948	65	75	9,437	461	\$172,050.00	\$149,110.00	\$22,940.00	\$3,522,087.43	\$3,052,475.77	\$469,611.66
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$13,629.00	\$11,811.80	\$1,817.20	\$279,003.37	\$241,802.92	\$37,200.45
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$50,564.00	\$43,822.13	\$6,741.87	\$1,035,110.89	\$897,096.10	\$138,014.79
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$4,910.00	\$4,255.33	\$654.67	\$100,514.09	\$87,112.21	\$13,401.88
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$84,467.00	\$73,204.73	\$11,262.27	\$1,729,149.43	\$1,498,596.17	\$230,553.26
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$7,446.00	\$6,453.20	\$992.80	\$152,429.31	\$132,105.40	\$20,323.91
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$8,173.00	\$7,083.27	\$1,089.73	\$167,311.95	\$145,003.69	\$22,308.26
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$8,453.00	\$7,325.93	\$1,127.07	\$173,043.91	\$149,971.39	\$23,072.52
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$656.00	\$568.53	\$87.47	\$13,429.17	\$11,638.62	\$1,790.56
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$17,156.00	\$14,868.53	\$2,287.47	\$351,205.65	\$304,378.23	\$46,827.42
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$7,823.00	\$6,779.93	\$1,043.07	\$160,146.99	\$138,794.06	\$21,352.93
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$8,858.00	\$7,676.93	\$1,181.07	\$181,334.79	\$157,156.82	\$24,177.97
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$33,001.00	\$28,600.87	\$4,400.13	\$675,573.42	\$585,496.97	\$90,076.46
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$1,640.00	\$1,421.33	\$218.67	\$33,572.93	\$29,096.54	\$4,476.39
STORMWATER SEWER SYSTEM PIPES	SSW	1948	65	75	9,437	461	\$80,360.00	\$69,645.33	\$10,714.67	\$1,645,073.79	\$1,425,730.62	\$219,343.17
STORMWATER SEWER SYSTEM PIPES	SSW	1949	64	75	9,437	477	\$9,881.00	\$8,431.79	\$1,449.21	\$195,491.96	\$166,819.81	\$28,672.15
STORMWATER SEWER SYSTEM PIPES	SSW	1949	64	75	9,437	477	\$2,915.00	\$2,487.47	\$427.53	\$57,672.21	\$49,213.62	\$8,458.59
SANITARY SEWER SYSTEM PIPES	SS	1949	64	75	9,437	477	\$47,447.00	\$40,488.11	\$6,958.89	\$938,721.49	\$801,042.34	\$137,679.15
COMBINED SYSTEMS PIPES	SC	1949	64	75	9,437	477	\$4,615.00	\$3,938.13	\$676.87	\$91,306.08	\$77,914.52	\$13,391.56
STORMWATER SEWER SYSTEM PIPES	SSW	1949	64	75	9,437	477	\$8,438.00	\$7,200.43	\$1,237.57	\$166,942.73	\$142,457.80	\$24,484.93
STORMWATER SEWER SYSTEM PIPES	SSW	1949	64	75	9,437	477	\$4,425.00	\$3,776.00	\$649.00	\$87,547.00	\$74,706.77	\$12,840.23
COMBINED SYSTEMS PIPES	SC	1949	64	75	9,437	477	\$3,458.00	\$2,950.83	\$507.17	\$68,415.26	\$58,381.02	\$10,034.24
COMBINED SYSTEMS PIPES	SC	1949	64	75	9,437	477	\$3,397.00	\$2,898.77	\$498.23	\$67,208.40	\$57,351.17	\$9,857.23
COMBINED SYSTEMS PIPES	SC	1949	64	75	9,437	477	\$6,333.00	\$5,404.16	\$928.84	\$125,296.08	\$106,919.32	\$18,376.76
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$8,468.00	\$7,113.12	\$1,354.88	\$156,695.69	\$131,624.38	\$25,071.31
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$11,785.00	\$9,899.40	\$1,885.60	\$218,074.95	\$183,182.96	\$34,891.99
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$28,900.00	\$24,276.00	\$4,624.00	\$534,778.63	\$449,214.05	\$85,564.58
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$41,528.00	\$34,883.52	\$6,644.48	\$768,452.84	\$645,500.39	\$122,952.45
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$10,434.00	\$8,764.56	\$1,669.44	\$193,075.44	\$162,183.37	\$30,892.07
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$32,027.00	\$26,902.68	\$5,124.32	\$592,642.05	\$497,819.32	\$94,822.73
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$26,425.00	\$22,197.00	\$4,228.00	\$488,980.12	\$410,743.30	\$78,236.82
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$361.00	\$303.24	\$57.76	\$6,680.11	\$5,611.29	\$1,068.82
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$56,807.00	\$47,717.88	\$9,089.12	\$1,051,182.35	\$882,993.17	\$168,189.18
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$15,155.00	\$12,730.20	\$2,424.80	\$280,434.95	\$235,565.36	\$44,869.59
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$680.00	\$571.20	\$108.80	\$12,583.03	\$10,569.74	\$2,013.28
STORMWATER SEWER SYSTM PIPES	SSW	1950	63	75	9,437	510	\$1,041.00	\$874.44	\$166.56	\$19,263.13	\$16,181.03	\$3,082.10
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$2,055.00	\$1,726.20	\$328.80	\$38,026.65	\$31,942.38	\$6,084.26
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$2,584.00	\$2,170.56	\$413.44	\$47,815.50	\$40,165.02	\$7,650.48
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$2,260.00	\$1,898.40	\$361.60	\$41,820.06	\$35,128.85	\$6,691.21
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$4,083.00	\$3,429.72	\$653.28	\$75,553.67	\$63,465.09	\$12,088.59

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$939.00	\$788.76	\$150.24	\$17,375.68	\$14,595.57	\$2,780.11
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$3,575.00	\$3,003.00	\$572.00	\$66,153.41	\$55,568.87	\$10,584.55
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$8,163.00	\$6,856.92	\$1,306.08	\$151,051.83	\$126,883.54	\$24,168.29
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$86,483.00	\$72,645.72	\$13,837.28	\$1,600,320.43	\$1,344,269.16	\$256,051.27
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$45,844.00	\$38,508.96	\$7,335.04	\$848,318.05	\$712,587.16	\$135,730.89
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$40,768.00	\$34,245.12	\$6,522.88	\$754,389.46	\$633,687.14	\$120,702.31
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$524.00	\$440.16	\$83.84	\$9,696.33	\$8,144.92	\$1,551.41
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$2,404.00	\$2,019.36	\$384.64	\$44,484.70	\$37,367.15	\$7,117.55
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$558.00	\$468.72	\$89.28	\$10,325.48	\$8,673.41	\$1,652.08
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$16,181.00	\$13,592.04	\$2,588.96	\$299,420.52	\$251,513.24	\$47,907.28
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$4,728.00	\$3,971.52	\$756.48	\$87,489.04	\$73,490.80	\$13,998.25
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$1,393.00	\$1,170.12	\$222.88	\$25,776.70	\$21,652.43	\$4,124.27
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$1,312.00	\$1,102.08	\$209.92	\$24,277.84	\$20,393.39	\$3,884.45
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$4,362.00	\$3,664.08	\$697.92	\$80,716.42	\$67,801.79	\$12,914.63
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$761.00	\$639.24	\$121.76	\$14,081.89	\$11,828.79	\$2,253.10
COMBINED SYSTEMS PIPES	SC	1950	63	75	9,437	510	\$7,815.00	\$6,564.60	\$1,250.40	\$144,612.28	\$121,474.32	\$23,137.97
SANITARY SEWER SYSTEM PIPES	SS	1950	63	75	9,437	510	\$24,113.00	\$20,254.92	\$3,858.08	\$446,197.83	\$374,806.17	\$71,391.65
SANITARY SEWER SYSTEM PIPES	SS	1950	63	75	9,437	510	\$19,046.00	\$15,998.64	\$3,047.36	\$352,435.77	\$296,046.05	\$56,389.72
SANITARY SEWER SYSTEM PIPES	SS	1950	63	75	9,437	510	\$6,050.00	\$5,082.00	\$968.00	\$111,951.93	\$94,039.62	\$17,912.31
SANITARY SEWER SYSTEM PIPES	SS	1950	63	75	9,437	510	\$40,656.00	\$34,151.04	\$6,504.96	\$752,316.96	\$631,946.25	\$120,370.71
STORMWATER SEWER SYSTEM PIPES	SSW	1950	63	75	9,437	510	\$3,968.00	\$3,333.12	\$634.88	\$73,425.66	\$61,677.56	\$11,748.11
STORMWATER SEWER SYSTEM PIPES	SSW	1950	63	75	9,437	510	\$1,899.00	\$1,595.16	\$303.84	\$35,139.95	\$29,517.56	\$5,622.39
STORMWATER SEWER SYSTEM PIPES	SSW	1950	63	75	9,437	510	\$432.00	\$362.88	\$69.12	\$7,993.92	\$6,714.90	\$1,279.03
SANITARY SEWER SYSTEM PIPES	SS	1951	62	75	9,437	543	\$2,121.00	\$1,753.36	\$367.64	\$36,862.71	\$30,473.17	\$6,389.54
SANITARY SEWER SYSTEM PIPES	SS	1951	62	75	9,437	543	\$14,156.00	\$11,702.29	\$2,453.71	\$246,029.46	\$203,384.35	\$42,645.11
COMBINED SYSTEMS PIPES	SC	1951	62	75	9,437	543	\$3,664.00	\$3,028.91	\$635.09	\$63,679.85	\$52,642.01	\$11,037.84
STORMWATER SEWER SYSTEM PIPES	SSW	1951	62	75	9,437	543	\$3,504.00	\$2,896.64	\$607.36	\$60,899.07	\$50,343.23	\$10,555.84
COMBINED SYSTEMS PIPES	SC	1951	62	75	9,437	543	\$3,932.00	\$3,250.45	\$681.55	\$68,337.65	\$56,492.46	\$11,845.19
COMBINED SYSTEMS PIPES	SC	1952	61	75	9,437	569	\$5,899.00	\$4,797.85	\$1,101.15	\$79,839.11	\$79,575.81	\$18,263.30
COMBINED SYSTEMS PIPES	SC	1952	61	75	9,437	569	\$13,257.00	\$10,782.36	\$2,474.64	\$219,876.78	\$178,833.12	\$41,043.67
COMBINED SYSTEMS PIPES	SC	1952	61	75	9,437	569	\$2,922.00	\$2,376.56	\$545.44	\$48,463.45	\$39,416.94	\$9,046.51
COMBINED SYSTEMS PIPES	SC	1952	61	75	9,437	569	\$2,562.00	\$2,083.76	\$478.24	\$42,492.59	\$34,560.64	\$7,931.95
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$12,869.00	\$10,466.79	\$2,402.21	\$213,441.52	\$173,599.11	\$39,842.42
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$15,768.00	\$12,824.64	\$2,943.36	\$261,523.50	\$212,705.78	\$48,817.72
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$2,776.00	\$2,257.81	\$518.19	\$46,041.94	\$37,447.44	\$8,594.49
SANITARY SEWER SYSTEM PIPES	SS	1952	61	75	9,437	569	\$39,671.00	\$32,265.75	\$7,405.25	\$657,971.77	\$535,150.37	\$122,821.40
SANITARY SEWER SYSTEM PIPES	SS	1952	61	75	9,437	569	\$13,702.00	\$11,144.29	\$2,557.71	\$227,257.42	\$184,836.04	\$42,421.39
SANITARY SEWER SYSTEM PIPES	SS	1952	61	75	9,437	569	\$16,719.00	\$13,598.12	\$3,120.88	\$277,296.52	\$225,534.50	\$51,762.02
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$14,992.00	\$12,193.49	\$2,798.51	\$248,652.99	\$202,237.77	\$46,415.22
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$7,101.00	\$5,775.48	\$1,325.52	\$117,775.14	\$95,790.45	\$21,984.69
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$4,732.00	\$3,848.69	\$883.31	\$78,483.59	\$63,833.32	\$14,650.27
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$6,127.00	\$4,983.29	\$1,143.71	\$101,620.66	\$82,651.47	\$18,969.19
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$6,408.00	\$5,211.84	\$1,196.16	\$106,281.24	\$86,442.08	\$19,839.16
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$5,838.00	\$4,748.24	\$1,089.76	\$96,827.39	\$78,752.94	\$18,074.45
STORMWATER SEWER SYSTEM PIPES	SSW	1952	61	75	9,437	569	\$1,699.00	\$1,381.85	\$317.15	\$28,179.12	\$22,919.02	\$5,260.10
STORMWATER SEWER SYSTEM PIPES	SSW	1953	60	75	9,437	600	\$4,288.00	\$3,430.40	\$857.60	\$67,445.02	\$53,956.02	\$13,489.00
SANITARY SEWER SYSTEM PIPES	SS	1953	60	75	9,437	600	\$5,820.00	\$4,656.00	\$1,164.00	\$91,541.52	\$73,233.22	\$18,308.30
SANITARY SEWER SYSTEM PIPES	SS	1953	60	75	9,437	600	\$28,824.00	\$23,059.20	\$5,764.80	\$453,366.45	\$362,693.16	\$90,673.29
STORMWATER SEWER SYSTEM PIPES	SSW	1953	60	75	9,437	600	\$18,963.00	\$15,170.40	\$3,792.60	\$298,264.92	\$238,611.93	\$59,652.98
COMBINED SYSTEMS PIPES	SC	1953	60	75	9,437	600	\$1,489.00	\$1,191.20	\$297.80	\$23,420.16	\$18,736.13	\$4,684.03
COMBINED SYSTEMS PIPES	SC	1953	60	75	9,437	600	\$2,919.00	\$2,335.20	\$583.80	\$45,912.32	\$36,729.85	\$9,182.46
COMBINED SYSTEMS PIPES	SC	1953	60	75	9,437	600	\$1,742.00	\$1,393.60	\$348.40	\$27,399.54	\$21,919.63	\$5,479.91
COMBINED SYSTEMS PIPES	SC	1953	60	75	9,437	600	\$11,249.00	\$8,999.20	\$2,249.80	\$176,933.08	\$141,546.47	\$35,386.62
COMBINED SYSTEMS PIPES	SC	1953	60	75	9,437	600	\$9,395.00	\$7,516.00	\$1,879.00	\$147,771.92	\$118,217.54	\$29,554.38
COMBINED SYSTEMS PIPES	SC	1954	59	75	9,437	628	\$3,199.00	\$2,516.55	\$682.45	\$48,072.97	\$37,817.41	\$10,255.57

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
COMBINED SYSTEMS PIPES	SC	1954	59	75	9,437	628	\$12,290.00	\$9,668.13	\$2,621.87	\$184,687.98	\$145,287.87	\$39,400.10
SANITARY SEWER SYSTEM PIPES	SS	1954	59	75	9,437	628	\$3,702.00	\$2,912.24	\$789.76	\$55,631.81	\$43,763.69	\$11,868.12
STORMWATER SEWER SYSTEM PIPES	SSW	1954	59	75	9,437	628	\$785.00	\$617.53	\$167.47	\$11,796.59	\$9,279.98	\$2,516.61
STORMWATER SEWER SYSTEM PIPES	SSW	1955	58	75	9,437	660	\$1,470.00	\$1,136.80	\$333.20	\$21,019.37	\$16,254.98	\$4,764.39
STORMWATER SEWER SYSTEM PIPES	SSW	1955	58	75	9,437	660	\$5,139.00	\$3,974.16	\$1,164.84	\$73,482.02	\$56,826.09	\$16,655.92
STORMWATER SEWER SYSTEM PIPES	SSW	1955	58	75	9,437	660	\$4,873.00	\$3,768.45	\$1,104.55	\$69,678.51	\$53,884.71	\$15,793.80
STORMWATER SEWER SYSTEM PIPES	SSW	1955	58	75	9,437	660	\$12,550.00	\$9,705.33	\$2,844.67	\$179,451.12	\$138,775.53	\$40,675.59
SANITARY SEWER SYSTEM PIPES	SS	1955	58	75	9,437	660	\$30,209.00	\$23,361.63	\$6,847.37	\$431,955.29	\$334,045.42	\$97,909.87
SANITARY SEWER SYSTEM PIPES	SS	1955	58	75	9,437	660	\$16,518.00	\$12,773.92	\$3,744.08	\$236,189.13	\$182,652.93	\$53,536.20
COMBINED SYSTEMS PIPES	SC	1955	58	75	9,437	660	\$11,161.00	\$8,631.17	\$2,529.83	\$159,589.96	\$123,416.23	\$36,173.72
COMBINED SYSTEMS PIPES	SC	1955	58	75	9,437	660	\$17,104.00	\$13,227.09	\$3,876.91	\$244,568.28	\$189,132.80	\$55,435.48
COMBINED SYSTEMS PIPES	SC	1955	58	75	9,437	660	\$22,511.00	\$17,408.51	\$5,102.49	\$321,882.40	\$248,922.39	\$72,960.01
COMBINED SYSTEMS PIPES	SC	1955	58	75	9,437	660	\$10,458.00	\$8,087.52	\$2,370.48	\$149,537.83	\$115,642.59	\$33,895.24
COMBINED SYSTEMS PIPES	SC	1955	58	75	9,437	660	\$42,483.00	\$32,853.52	\$9,629.48	\$607,459.91	\$469,769.00	\$137,690.91
COMBINED SYSTEMS PIPES	SC	1955	58	75	9,437	660	\$5,652.00	\$4,370.88	\$1,281.12	\$80,817.35	\$62,498.75	\$18,318.60
COMBINED SYSTEMS PIPES	SC	1955	58	75	9,437	660	\$31,663.00	\$24,486.05	\$7,176.95	\$452,745.88	\$350,123.48	\$102,622.40
COMBINED SYSTEMS PIPES	SC	1956	57	75	9,437	692	\$6,164.00	\$4,684.64	\$1,479.36	\$84,062.62	\$63,887.59	\$20,175.03
COMBINED SYSTEMS PIPES	SC	1956	57	75	9,437	692	\$973.00	\$739.48	\$233.52	\$13,269.46	\$10,084.79	\$3,184.67
COMBINED SYSTEMS PIPES	SC	1956	57	75	9,437	692	\$19,364.00	\$14,716.64	\$4,647.36	\$264,079.91	\$200,700.73	\$63,379.18
COMBINED SYSTEMS PIPES	SC	1956	57	75	9,437	692	\$1,200.00	\$912.00	\$288.00	\$16,365.21	\$12,437.56	\$3,927.65
STORMWATER SEWER SYSTEM PIPES	SSW	1956	57	75	9,437	692	\$6,447.00	\$4,899.72	\$1,547.28	\$87,922.08	\$66,820.78	\$21,101.30
SANITARY SEWER SYSTEM PIPES	SS	1956	57	75	9,437	692	\$3,514.00	\$2,670.64	\$843.36	\$47,922.78	\$36,421.32	\$11,501.47
SANITARY SEWER SYSTEM PIPES	SS	1956	57	75	9,437	692	\$5,577.00	\$4,238.52	\$1,338.48	\$76,057.30	\$57,803.55	\$18,253.75
STORMWATER SEWER SYSTEM PIPES	SSW	1956	57	75	9,437	692	\$8,446.00	\$6,418.96	\$2,027.04	\$115,183.79	\$87,539.68	\$27,644.11
STORMWATER SEWER SYSTEM PIPES	SSW	1956	57	75	9,437	692	\$4,908.00	\$3,730.08	\$1,177.92	\$66,933.70	\$50,869.61	\$16,064.09
STORMWATER SEWER SYSTEM PIPES	SSW	1957	56	75	9,437	724	\$5,586.00	\$4,170.88	\$1,415.12	\$72,812.97	\$54,367.02	\$18,445.95
STORMWATER SEWER SYSTEM PIPES	SSW	1957	56	75	9,437	724	\$2,500.00	\$1,866.67	\$633.33	\$32,587.26	\$24,331.82	\$8,255.44
STORMWATER SEWER SYSTEM PIPES	SSW	1957	56	75	9,437	724	\$2,512.00	\$1,875.63	\$636.37	\$32,743.68	\$24,448.61	\$8,295.06
STORMWATER SEWER SYSTEM PIPES	SSW	1957	56	75	9,437	724	\$4,171.00	\$3,114.35	\$1,056.65	\$54,368.58	\$40,595.21	\$13,773.37
SANITARY SEWER SYSTEM PIPES	SS	1957	56	75	9,437	724	\$16,587.00	\$12,384.96	\$4,202.04	\$216,209.94	\$161,436.76	\$54,773.19
SANITARY SEWER SYSTEM PIPES	SS	1957	56	75	9,437	724	\$6,395.00	\$4,774.93	\$1,620.07	\$83,358.21	\$62,240.79	\$21,117.41
STORMWATER SEWER SYSTEM PIPES	SSW	1957	56	75	9,437	724	\$13,373.00	\$9,985.17	\$3,387.83	\$174,315.76	\$130,155.77	\$44,159.99
COMBINED SYSTEMS PIPES	SC	1957	56	75	9,437	724	\$1,289.00	\$962.45	\$326.55	\$16,801.99	\$12,545.49	\$4,256.50
COMBINED SYSTEMS PIPES	SC	1957	56	75	9,437	724	\$7,840.00	\$5,853.87	\$1,986.13	\$102,193.64	\$76,304.59	\$25,889.06
COMBINED SYSTEMS PIPES	SC	1957	56	75	9,437	724	\$6,884.00	\$5,140.05	\$1,743.95	\$89,732.27	\$67,000.10	\$22,732.18
COMBINED SYSTEMS PIPES	SC	1957	56	75	9,437	724	\$205.00	\$153.07	\$51.93	\$2,672.16	\$1,995.21	\$676.95
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$11,237.00	\$8,240.47	\$2,996.53	\$139,718.84	\$102,460.49	\$37,258.36
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$5,845.00	\$4,286.33	\$1,558.67	\$72,675.68	\$53,295.50	\$19,380.18
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$2,589.00	\$1,898.60	\$690.40	\$32,191.16	\$23,606.85	\$8,584.31
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$2,422.00	\$1,776.13	\$645.87	\$30,114.71	\$22,084.12	\$8,030.59
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$3,189.00	\$2,338.60	\$850.40	\$39,651.45	\$29,077.73	\$10,573.72
SANITARY SEWER SYSTEM PIPES	SS	1958	55	75	9,437	759	\$10,887.00	\$7,983.80	\$2,903.20	\$135,367.01	\$99,269.14	\$36,097.87
STORMWATER SEWER SYSTEM PIPES	SSW	1958	55	75	9,437	759	\$10,710.00	\$7,854.00	\$2,856.00	\$133,166.22	\$97,655.23	\$35,510.99
STORMWATER SEWER SYSTEM PIPES	SSW	1958	55	75	9,437	759	\$17,700.00	\$12,980.00	\$4,720.00	\$220,078.63	\$161,390.99	\$58,687.63
STORMWATER SEWER SYSTEM PIPES	SSW	1958	55	75	9,437	759	\$13,343.00	\$9,784.87	\$3,558.13	\$165,904.47	\$121,663.28	\$44,241.19
STORMWATER SEWER SYSTEM PIPES	SSW	1958	55	75	9,437	759	\$675.00	\$495.00	\$180.00	\$8,392.83	\$6,154.74	\$2,238.09
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$4,110.00	\$3,014.00	\$1,096.00	\$51,103.00	\$37,475.54	\$13,627.47
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$33,710.00	\$24,720.67	\$8,989.33	\$419,144.10	\$307,372.34	\$111,771.76
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$18,867.00	\$13,835.80	\$5,031.20	\$234,588.90	\$172,031.86	\$62,557.04
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$9,955.00	\$7,300.33	\$2,654.67	\$123,778.69	\$90,771.04	\$33,007.65
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$24,250.00	\$17,783.33	\$6,466.67	\$301,520.15	\$221,114.78	\$80,405.37
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$18,443.00	\$13,524.87	\$4,918.13	\$229,316.96	\$168,165.77	\$61,151.19
COMBINED SYSTEMS PIPES	SC	1958	55	75	9,437	759	\$2,516.00	\$1,845.07	\$670.93	\$31,283.49	\$22,941.23	\$8,342.26
COMBINED SYSTEMS PIPES	SC	1959	54	75	9,437	797	\$28,481.00	\$20,517.84	\$7,963.16	\$337,432.73	\$242,951.56	\$94,481.16
COMBINED SYSTEMS PIPES	SC	1959	54	75	9,437	797	\$13,935.00	\$10,033.20	\$3,901.80	\$165,004.21	\$118,803.03	\$46,201.18

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
STORMWATER SEWER SYSTEM PIPES	SSW	1959	54	75	9,437	797	\$6,747.00	\$4,857.84	\$1,889.16	\$79,891.17	\$57,521.64	\$22,369.53
STORMWATER SEWER SYSTEM PIPES	SSW	1959	54	75	9,437	797	\$12,040.00	\$8,668.80	\$3,371.20	\$142,565.53	\$102,647.18	\$39,918.35
STORMWATER SEWER SYSTEM PIPES	SSW	1959	54	75	9,437	797	\$7,152.00	\$5,149.44	\$2,002.56	\$84,686.77	\$60,974.47	\$23,712.30
STORMWATER SEWER SYSTEM PIPES	SSW	1959	54	75	9,437	797	\$14,909.00	\$10,734.48	\$4,174.52	\$176,537.34	\$127,106.88	\$49,430.45
STORMWATER SEWER SYSTEM PIPES	SSW	1959	54	75	9,437	797	\$1,669.00	\$1,201.68	\$467.32	\$19,762.61	\$14,229.08	\$5,533.53
SANITARY SEWER SYSTEM PIPES	SS	1959	54	75	9,437	797	\$41,562.00	\$29,924.64	\$11,637.36	\$492,135.28	\$354,337.40	\$137,797.88
COMBINED SYSTEMS PIPES	SC	1959	54	75	9,437	797	\$4,539.00	\$3,268.08	\$1,270.92	\$53,746.26	\$38,697.31	\$15,048.95
COMBINED SYSTEMS PIPES	SC	1959	54	75	9,437	797	\$14,173.00	\$10,204.56	\$3,968.44	\$167,822.37	\$120,832.11	\$46,990.26
COMBINED SYSTEMS PIPES	SC	1959	54	75	9,437	797	\$281.00	\$202.32	\$78.68	\$3,327.32	\$2,395.67	\$931.65
STORMWATER SEWER SYSTEM PIPES	SSW	1959	54	75	9,437	797	\$286.00	\$205.92	\$80.08	\$3,386.52	\$2,438.30	\$948.23
STORMWATER SEWER SYSTEM PIPES	SSW	1959	54	75	9,437	797	\$10,949.00	\$7,883.28	\$3,065.72	\$129,647.01	\$93,345.85	\$36,301.16
STORMWATER SEWER SYSTEM PIPES	SSW	1959	54	75	9,437	797	\$3,071.00	\$2,211.12	\$859.88	\$36,363.68	\$26,181.85	\$10,181.83
STORMWATER SEWER SYSTEM PIPES	SSW	1960	53	75	9,437	824	\$8,811.00	\$6,226.44	\$2,584.56	\$100,912.36	\$71,311.40	\$29,600.96
STORMWATER SEWER SYSTEM PIPES	SSW	1960	53	75	9,437	824	\$3,471.00	\$2,452.84	\$1,018.16	\$39,753.35	\$28,092.37	\$11,660.98
SANITARY SEWER SYSTEM PIPES	SS	1960	53	75	9,437	824	\$45,108.00	\$31,876.32	\$13,231.68	\$516,621.81	\$365,079.42	\$151,542.40
STORMWATER SEWER SYSTEM PIPES	SSW	1960	53	75	9,437	824	\$2,928.00	\$2,069.12	\$858.88	\$33,534.38	\$23,697.63	\$9,836.75
STORMWATER SEWER SYSTEM PIPES	SSW	1960	53	75	9,437	824	\$14,537.00	\$10,272.81	\$4,264.19	\$166,492.23	\$117,654.51	\$48,837.72
COMBINED SYSTEMS PIPES	SC	1960	53	75	9,437	824	\$10,460.00	\$7,391.73	\$3,068.27	\$119,798.35	\$84,657.50	\$35,140.85
COMBINED SYSTEMS PIPES	SC	1960	53	75	9,437	824	\$20,195.00	\$14,271.13	\$5,923.87	\$231,293.29	\$163,447.26	\$67,846.03
COMBINED SYSTEMS PIPES	SC	1960	53	75	9,437	824	\$2,669.00	\$1,886.09	\$782.91	\$30,568.05	\$21,601.42	\$8,966.63
COMBINED SYSTEMS PIPES	SC	1960	53	75	9,437	824	\$6,840.00	\$4,833.60	\$2,006.40	\$78,338.50	\$55,359.21	\$22,979.29
COMBINED SYSTEMS PIPES	SC	1961	52	75	9,437	847	\$10,067.00	\$6,979.79	\$3,087.21	\$112,166.47	\$77,768.75	\$34,397.72
COMBINED SYSTEMS PIPES	SC	1961	52	75	9,437	847	\$7,382.00	\$5,118.19	\$2,263.81	\$82,250.21	\$57,026.81	\$25,223.40
COMBINED SYSTEMS PIPES	SC	1961	52	75	9,437	847	\$1,851.00	\$1,283.36	\$567.64	\$20,623.83	\$14,299.19	\$6,324.64
COMBINED SYSTEMS PIPES	SC	1961	52	75	9,437	847	\$25,176.00	\$17,455.36	\$7,720.64	\$280,510.87	\$194,487.54	\$86,023.33
STORMWATER SEWER SYSTEM PIPES	SSW	1961	52	75	9,437	847	\$3,553.00	\$2,463.41	\$1,089.59	\$39,587.51	\$27,447.34	\$12,140.17
STORMWATER SEWER SYSTEM PIPES	SSW	1961	52	75	9,437	847	\$2,499.00	\$1,732.64	\$766.36	\$27,843.85	\$19,305.07	\$8,538.78
STORMWATER SEWER SYSTEM PIPES	SSW	1961	52	75	9,437	847	\$2,885.00	\$2,000.27	\$884.73	\$32,144.66	\$22,286.96	\$9,857.69
STORMWATER SEWER SYSTEM PIPES	SSW	1961	52	75	9,437	847	\$1,400.00	\$970.67	\$429.33	\$15,598.79	\$10,815.16	\$4,783.63
SANITARY SEWER SYSTEM PIPES	SS	1961	52	75	9,437	847	\$6,860.00	\$4,756.27	\$2,103.73	\$76,434.09	\$52,994.30	\$23,439.79
STORMWATER SEWER SYSTEM PIPES	SSW	1961	52	75	9,437	847	\$17,681.00	\$12,258.83	\$5,422.17	\$197,001.62	\$136,587.79	\$60,413.83
COMBINED SYSTEMS PIPES	SC	1961	52	75	9,437	847	\$8,347.00	\$5,787.25	\$2,559.75	\$93,002.23	\$64,481.55	\$28,520.69
STORMWATER SEWER SYSTEM PIPES	SSW	1962	51	75	9,437	872	\$13,610.00	\$9,254.80	\$4,355.20	\$147,295.01	\$100,160.60	\$47,134.40
STORMWATER SEWER SYSTEM PIPES	SSW	1962	51	75	9,437	872	\$10,631.00	\$7,229.08	\$3,401.92	\$115,054.61	\$78,237.13	\$36,817.47
COMBINED SYSTEMS PIPES	SC	1962	51	75	9,437	872	\$5,200.00	\$3,536.00	\$1,664.00	\$56,277.30	\$38,268.56	\$18,008.74
SANITARY SEWER SYSTEM PIPES	SS	1962	51	75	9,437	872	\$17,187.00	\$11,687.16	\$5,499.84	\$186,007.29	\$126,484.96	\$59,522.33
SANITARY SEWER SYSTEM PIPES	SS	1962	51	75	9,437	872	\$10,211.00	\$6,943.48	\$3,267.52	\$110,509.13	\$75,146.21	\$35,362.92
SANITARY SEWER SYSTEM PIPES	SS	1962	51	75	9,437	872	\$17,274.00	\$11,746.32	\$5,527.68	\$186,948.86	\$127,125.22	\$59,823.63
STORMWATER SEWER SYSTEM PIPES	SSW	1962	51	75	9,437	872	\$3,337.00	\$2,269.16	\$1,067.84	\$36,114.87	\$24,558.11	\$11,556.76
STORMWATER SEWER SYSTEM PIPES	SSW	1962	51	75	9,437	872	\$1,731.00	\$1,177.08	\$553.92	\$18,733.85	\$12,739.02	\$5,994.83
STORMWATER SEWER SYSTEM PIPES	SSW	1962	51	75	9,437	872	\$1,360.00	\$924.80	\$435.20	\$14,718.68	\$10,008.70	\$4,709.98
COMBINED SYSTEMS PIPES	SC	1962	51	75	9,437	872	\$7,647.00	\$5,199.96	\$2,447.04	\$82,760.10	\$56,276.87	\$26,483.23
COMBINED SYSTEMS PIPES	SC	1962	51	75	9,437	872	\$34,745.00	\$23,626.60	\$11,118.40	\$376,029.75	\$255,700.23	\$120,329.52
COMBINED SYSTEMS PIPES	SC	1962	51	75	9,437	872	\$7,104.00	\$4,830.72	\$2,273.28	\$76,883.45	\$52,280.74	\$24,602.70
COMBINED SYSTEMS PIPES	SC	1962	51	75	9,437	872	\$11,889.00	\$8,084.52	\$3,804.48	\$128,669.38	\$87,495.18	\$41,174.20
COMBINED SYSTEMS PIPES	SC	1962	51	75	9,437	872	\$4,114.00	\$2,797.52	\$1,316.48	\$44,524.00	\$30,276.32	\$14,247.68
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$22,036.00	\$14,690.67	\$7,345.33	\$230,809.86	\$153,873.24	\$76,936.62
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$13,962.00	\$9,308.00	\$4,654.00	\$146,241.03	\$97,494.02	\$48,747.01
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$14,559.00	\$9,706.00	\$4,853.00	\$152,494.13	\$101,662.76	\$50,831.38
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$1,554.00	\$1,036.00	\$518.00	\$16,276.93	\$10,851.29	\$5,425.64
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$5,390.00	\$3,593.33	\$1,796.67	\$56,456.03	\$37,637.36	\$18,818.68
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$2,750.00	\$1,833.33	\$916.67	\$28,804.10	\$19,202.73	\$9,601.37
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$8,621.00	\$5,747.33	\$2,873.67	\$90,298.23	\$60,198.82	\$30,099.41
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$11,032.00	\$7,354.67	\$3,677.33	\$115,551.57	\$77,034.38	\$38,517.19
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$1,496.00	\$997.33	\$498.67	\$15,669.43	\$10,446.29	\$5,223.14

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$24,899.00	\$16,599.33	\$8,299.67	\$260,797.54	\$173,865.03	\$86,932.51
SANITARY SEWER SYSTEM PIPES	SS	1963	50	75	9,437	901	\$22,991.00	\$15,327.33	\$7,663.67	\$240,812.74	\$160,541.82	\$80,270.91
SANITARY SEWER SYSTEM PIPES	SS	1963	50	75	9,437	901	\$42,746.00	\$28,497.33	\$14,248.67	\$447,730.90	\$298,487.27	\$149,243.63
SANITARY SEWER SYSTEM PIPES	SS	1963	50	75	9,437	901	\$973.00	\$648.67	\$324.33	\$10,191.41	\$6,794.28	\$3,397.14
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$12,867.00	\$8,578.00	\$4,289.00	\$134,771.76	\$89,847.84	\$44,923.92
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$330.00	\$220.00	\$110.00	\$3,456.49	\$2,304.33	\$1,152.16
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$3,977.00	\$2,651.33	\$1,325.67	\$41,655.96	\$27,770.64	\$13,885.32
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$22,050.00	\$14,700.00	\$7,350.00	\$230,956.50	\$153,971.00	\$76,985.50
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$17,837.00	\$11,891.33	\$5,945.67	\$186,828.62	\$124,552.41	\$62,276.21
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$1,838.00	\$1,225.33	\$612.67	\$19,251.61	\$12,834.41	\$6,417.20
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$4,219.00	\$2,812.67	\$1,406.33	\$44,190.72	\$29,460.48	\$14,730.24
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$5,539.00	\$3,692.67	\$1,846.33	\$58,016.69	\$38,677.79	\$19,338.90
STORMWATER SEWER SYSTEM PIPES	SSW	1963	50	75	9,437	901	\$22,877.00	\$15,251.33	\$7,625.67	\$239,618.67	\$159,745.78	\$79,872.89
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$36,222.00	\$24,148.00	\$12,074.00	\$379,397.11	\$252,931.41	\$126,465.70
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$107,416.00	\$71,610.67	\$35,805.33	\$1,125,098.55	\$750,065.70	\$375,032.85
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$60,238.00	\$40,158.67	\$20,079.33	\$630,945.92	\$420,630.61	\$210,315.31
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$19,856.00	\$13,237.33	\$6,618.67	\$207,976.06	\$138,650.71	\$69,325.35
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$35,548.00	\$23,698.67	\$11,849.33	\$372,337.48	\$248,224.99	\$124,112.49
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$685.00	\$456.67	\$228.33	\$7,174.84	\$4,783.23	\$2,391.61
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$5,170.00	\$3,446.67	\$1,723.33	\$54,151.70	\$36,101.14	\$18,050.57
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$13,774.00	\$9,182.67	\$4,591.33	\$144,271.87	\$96,181.25	\$48,090.62
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$4,518.00	\$3,012.00	\$1,506.00	\$47,322.51	\$31,548.34	\$15,774.17
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$21,520.00	\$14,346.67	\$7,173.33	\$225,405.16	\$150,270.11	\$75,135.05
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$6,623.00	\$4,415.33	\$2,207.67	\$69,370.74	\$46,247.16	\$23,123.58
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$2,035.00	\$1,356.67	\$678.33	\$21,315.03	\$14,210.02	\$7,105.01
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$10,907.00	\$7,271.33	\$3,635.67	\$114,242.29	\$76,161.53	\$38,080.76
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$1,981.00	\$1,320.67	\$660.33	\$20,749.42	\$13,832.95	\$6,916.47
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$23,845.00	\$15,896.67	\$7,948.33	\$249,757.72	\$166,505.14	\$83,252.57
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$86,634.00	\$57,756.00	\$28,878.00	\$907,423.36	\$604,948.91	\$302,474.45
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$15,215.00	\$10,143.33	\$5,071.67	\$159,365.22	\$106,243.48	\$53,121.74
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$26,663.00	\$17,775.33	\$8,887.67	\$279,274.06	\$186,182.71	\$93,091.35
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$7,632.00	\$5,088.00	\$2,544.00	\$79,939.23	\$53,292.82	\$26,646.41
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$30,193.00	\$20,128.67	\$10,064.33	\$316,248.05	\$210,832.03	\$105,416.02
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$9,210.00	\$6,140.00	\$3,070.00	\$96,467.54	\$64,311.70	\$32,155.85
COMBINED SYSTEMS PIPES	SC	1963	50	75	9,437	901	\$2,254.00	\$1,502.67	\$751.33	\$23,608.89	\$15,739.26	\$7,869.63
COMBINED SYSTEMS PIPES	SC	1964	49	75	9,437	936	\$1,306.00	\$853.25	\$452.75	\$13,167.81	\$8,602.97	\$4,564.84
COMBINED SYSTEMS PIPES	SC	1964	49	75	9,437	936	\$34,017.00	\$22,224.44	\$11,792.56	\$342,978.22	\$224,079.10	\$118,899.12
COMBINED SYSTEMS PIPES	SC	1964	49	75	9,437	936	\$24,012.00	\$15,687.84	\$8,324.16	\$242,102.27	\$158,173.48	\$83,928.79
COMBINED SYSTEMS PIPES	SC	1964	49	75	9,437	936	\$7,583.00	\$4,954.23	\$2,628.77	\$76,456.00	\$49,951.26	\$26,504.75
COMBINED SYSTEMS PIPES	SC	1964	49	75	9,437	936	\$2,104.00	\$1,374.61	\$729.39	\$21,213.69	\$13,859.61	\$7,354.08
COMBINED SYSTEMS PIPES	SC	1964	49	75	9,437	936	\$6,374.00	\$4,164.35	\$2,209.65	\$64,266.20	\$41,987.25	\$22,278.95
SANITARY SEWER SYSTEM PIPES	SS	1964	49	75	9,437	936	\$7,258.00	\$4,741.89	\$2,516.11	\$73,179.17	\$47,810.39	\$25,368.78
STORMWATER SEWER SYSTEM PIPES	SSW	1964	49	75	9,437	936	\$2,325.00	\$1,519.00	\$806.00	\$23,441.94	\$15,315.40	\$8,126.54
STORMWATER SEWER SYSTEM PIPES	SSW	1964	49	75	9,437	936	\$1,643.00	\$1,073.43	\$569.57	\$16,565.64	\$10,822.88	\$5,742.75
STORMWATER SEWER SYSTEM PIPES	SSW	1964	49	75	9,437	936	\$14,350.00	\$9,375.33	\$4,974.67	\$144,684.64	\$94,527.30	\$50,157.34
STORMWATER SEWER SYSTEM PIPES	SSW	1964	49	75	9,437	936	\$17,576.00	\$11,482.99	\$6,093.01	\$177,210.96	\$115,777.83	\$61,433.13
STORMWATER SEWER SYSTEM PIPES	SSW	1965	48	75	9,437	971	\$7,346.00	\$4,701.44	\$2,644.56	\$71,396.69	\$45,693.88	\$25,702.81
STORMWATER SEWER SYSTEM PIPES	SSW	1965	48	75	9,437	971	\$2,847.00	\$1,822.08	\$1,024.92	\$27,670.35	\$17,709.02	\$9,961.33
STORMWATER SEWER SYSTEM PIPES	SSW	1965	48	75	9,437	971	\$3,482.00	\$2,228.48	\$1,253.52	\$33,841.99	\$21,658.87	\$12,183.12
STORMWATER SEWER SYSTEM PIPES	SSW	1965	48	75	9,437	971	\$17,853.00	\$11,425.92	\$6,427.08	\$173,515.53	\$111,049.94	\$62,465.59
SANITARY SEWER SYSTEM PIPES	SS	1965	48	75	9,437	971	\$10,608.00	\$6,789.12	\$3,818.88	\$103,100.47	\$65,984.30	\$37,116.17
STORMWATER SEWER SYSTEM PIPES	SSW	1965	48	75	9,437	971	\$4,082.00	\$2,612.48	\$1,469.52	\$39,673.47	\$25,391.02	\$14,282.45
COMBINED SYSTEMS PIPES	SC	1965	48	75	9,437	971	\$15,182.00	\$9,716.48	\$5,465.52	\$147,555.75	\$94,435.68	\$53,120.07
COMBINED SYSTEMS PIPES	SC	1965	48	75	9,437	971	\$8,392.00	\$5,370.88	\$3,021.12	\$81,562.89	\$52,200.25	\$29,362.64
SANITARY SEWER SYSTEM PIPES	SS	1966	47	75	9,437	1,019	\$90,312.00	\$56,595.52	\$33,716.48	\$836,407.00	\$524,148.38	\$312,258.61

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
STORMWATER SEWER SYSTEM PIPES	SSW	1966	47	75	9,437	1,019	\$283.00	\$177.35	\$105.65	\$2,620.95	\$1,642.46	\$978.49
STORMWATER SEWER SYSTEM PIPES	SSW	1966	47	75	9,437	1,019	\$7,152.00	\$4,481.92	\$2,670.08	\$66,236.85	\$41,508.43	\$24,728.43
COMBINED SYSTEMS PIPES	SC	1966	47	75	9,437	1,019	\$7,563.00	\$4,739.48	\$2,823.52	\$70,043.25	\$43,893.77	\$26,149.48
COMBINED SYSTEMS PIPES	SC	1967	46	75	9,437	1,074	\$9,625.00	\$5,903.33	\$3,721.67	\$84,575.16	\$51,872.77	\$32,702.40
COMBINED SYSTEMS PIPES	SC	1967	46	75	9,437	1,074	\$29,815.00	\$18,286.53	\$11,528.47	\$261,985.29	\$160,684.31	\$101,300.98
STORMWATER SEWER SYSTEM PIPES	SSW	1967	46	75	9,437	1,074	\$11,963.00	\$7,337.31	\$4,625.69	\$105,119.24	\$64,473.13	\$40,646.11
STORMWATER SEWER SYSTEM PIPES	SSW	1967	46	75	9,437	1,074	\$4,647.00	\$2,850.16	\$1,796.84	\$40,833.33	\$25,044.44	\$15,788.89
SANITARY SEWER SYSTEM PIPES	SS	1967	46	75	9,437	1,074	\$840.00	\$515.20	\$324.80	\$7,381.11	\$4,527.08	\$2,854.03
SANITARY SEWER SYSTEM PIPES	SS	1967	46	75	9,437	1,074	\$60,204.00	\$36,925.12	\$23,278.88	\$529,014.34	\$324,462.13	\$204,552.21
COMBINED SYSTEMS PIPES	SC	1967	46	75	9,437	1,074	\$16,393.00	\$10,054.37	\$6,338.63	\$144,045.78	\$88,348.08	\$55,697.70
SANITARY SEWER SYSTEM PIPES	SS	1968	45	75	9,437	1,155	\$4,226.00	\$2,535.60	\$1,690.40	\$34,529.79	\$20,717.87	\$13,811.91
COMBINED SYSTEMS PIPES	SC	1968	45	75	9,437	1,155	\$23,567.00	\$14,140.20	\$9,426.80	\$192,561.16	\$115,536.70	\$77,024.46
COMBINED SYSTEMS PIPES	SC	1968	45	75	9,437	1,155	\$14,820.00	\$8,892.00	\$5,928.00	\$121,091.20	\$72,654.72	\$48,436.48
COMBINED SYSTEMS PIPES	SC	1969	44	75	9,437	1,269	\$15,035.00	\$8,820.53	\$6,214.47	\$111,811.94	\$65,596.34	\$46,215.60
SANITARY SEWER SYSTEM PIPES	SS	1969	44	75	9,437	1,269	\$15,845.00	\$9,295.73	\$6,549.27	\$117,835.73	\$69,130.30	\$48,705.44
STORMWATER SEWER SYSTEM PIPES	SSW	1969	44	75	9,437	1,269	\$4,486.00	\$2,631.79	\$1,854.21	\$33,361.38	\$19,572.01	\$13,789.37
STORMWATER SEWER SYSTEM PIPES	SSW	1969	44	75	9,437	1,269	\$1,777.00	\$1,042.51	\$734.49	\$13,215.15	\$7,752.89	\$5,462.26
STORMWATER SEWER SYSTEM PIPES	SSW	1970	43	75	9,437	1,381	\$6,945.00	\$3,981.80	\$2,963.20	\$47,459.70	\$27,210.23	\$20,249.47
SANITARY SEWER SYSTEM PIPES	SS	1971	42	75	9,437	1,581	\$31,447.00	\$17,610.32	\$13,836.68	\$187,712.73	\$105,119.13	\$82,593.60
SANITARY SEWER SYSTEM PIPES	SS	1971	42	75	9,437	1,581	\$41,127.00	\$23,031.12	\$18,095.88	\$245,494.37	\$137,476.85	\$108,017.52
STORMWATER SEWER SYSTEM PIPES	SSW	1972	41	75	9,437	1,753	\$4,602.00	\$2,515.76	\$2,086.24	\$24,774.85	\$13,543.59	\$11,231.27
COMBINED SYSTEMS PIPES	SC	1972	41	75	9,437	1,753	\$12,614.00	\$6,895.65	\$5,718.35	\$67,907.43	\$37,122.73	\$30,784.70
SANITARY SEWER SYSTEM PIPES	SS	1974	39	75	9,437	2,020	\$12,335.00	\$6,414.20	\$5,920.80	\$57,628.08	\$29,966.60	\$27,661.48
SANITARY SEWER SYSTEM PIPES	SS	1975	38	75	9,437	2,212	\$9,414.00	\$4,769.76	\$4,644.24	\$40,163.86	\$20,349.69	\$19,814.17
STORMWATER SEWER SYSTEM PIPES	SSW	1975	38	75	9,437	2,212	\$4,901.00	\$2,483.17	\$2,417.83	\$20,909.61	\$10,594.20	\$10,315.41
STORMWATER SEWER SYSTEM PIPES	SSW	1975	38	75	9,437	2,212	\$3,265.00	\$1,654.27	\$1,610.73	\$13,929.79	\$7,057.76	\$6,872.03
STORMWATER SEWER SYSTEM PIPES	SSW	1975	38	75	9,437	2,212	\$6,299.00	\$3,191.49	\$3,107.51	\$26,874.03	\$13,616.18	\$13,257.86
COMBINED SYSTEMS PIPES	SC	1975	38	75	9,437	2,212	\$7,526.00	\$3,813.17	\$3,712.83	\$32,108.90	\$16,268.51	\$15,840.39
STORMWATER SEWER SYSTEM PIPES	SSW	1976	37	75	9,437	2,401	\$4,292.00	\$2,117.39	\$2,174.61	\$16,869.96	\$8,322.51	\$8,547.44
STORMWATER SEWER SYSTEM PIPES	SSW	1977	36	75	9,437	2,576	\$9,597.00	\$4,606.56	\$4,990.44	\$35,158.96	\$16,876.30	\$18,282.66
COMBINED SYSTEMS PIPES	SC	1978	35	75	9,437	2,776	\$47,503.00	\$22,168.07	\$25,334.93	\$161,490.86	\$75,362.40	\$86,128.46
COMBINED SYSTEMS PIPES	SC	1978	35	75	9,437	2,776	\$52,716.00	\$24,600.80	\$28,115.20	\$179,212.94	\$83,632.71	\$95,580.24
COMBINED SYSTEMS PIPES	SC	1979	34	75	9,437	3,003	\$6,188.00	\$280.16	\$337.84	\$1,942.14	\$880.43	\$1,061.70
SANITARY SEWER SYSTEM PIPES	SS	1979	34	75	9,437	3,003	\$18,684.00	\$8,470.08	\$10,213.92	\$58,716.60	\$26,618.19	\$32,098.41
SANITARY SEWER SYSTEM PIPES	SS	1981	32	75	9,437	3,535	\$9,101.00	\$3,883.09	\$5,217.91	\$24,296.63	\$10,366.56	\$13,930.07
STORMWATER SEWER SYSTEM PIPES	SSW	1981	32	75	9,437	3,535	\$13,629.00	\$5,815.04	\$7,813.96	\$36,384.88	\$15,524.22	\$20,860.66
COMBINED SYSTEMS PIPES	SC	1982	31	75	9,437	3,825	\$15,128.00	\$6,252.91	\$8,875.09	\$37,324.71	\$15,427.55	\$21,897.16
COMBINED SYSTEMS PIPES	SC	1982	31	75	9,437	3,825	\$5,474.00	\$2,262.59	\$3,211.41	\$13,505.78	\$5,582.39	\$7,923.39
COMBINED SYSTEMS PIPES	SC	1982	31	75	9,437	3,825	\$22,884.00	\$9,458.72	\$13,425.28	\$56,460.78	\$23,337.12	\$33,123.66
COMBINED SYSTEMS PIPES	SC	1982	31	75	9,437	3,825	\$7,280.00	\$3,009.07	\$4,270.93	\$17,961.65	\$7,424.15	\$10,537.50
COMBINED SYSTEMS PIPES	SC	1985	28	75	9,437	4,195	\$14,937.00	\$5,576.48	\$9,360.52	\$33,602.98	\$12,545.11	\$21,057.87
COMBINED SYSTEMS PIPES	SC	1985	28	75	9,437	4,195	\$8,789.00	\$3,281.23	\$5,507.77	\$19,772.15	\$7,381.60	\$12,390.55
COMBINED SYSTEMS PIPES	SC	1985	28	75	9,437	4,195	\$25,602.00	\$9,558.08	\$16,043.92	\$57,595.47	\$21,502.31	\$36,093.16
COMBINED SYSTEMS PIPES	SC	1985	28	75	9,437	4,195	\$6,163.00	\$2,300.85	\$3,862.15	\$13,864.58	\$5,176.11	\$8,688.47
SANITARY SEWER SYSTEM PIPES	SS	1985	28	75	9,437	4,195	\$45,884.00	\$17,130.03	\$28,753.97	\$103,222.81	\$38,536.52	\$64,686.30
SANITARY SEWER SYSTEM PIPES	SS	1985	28	75	9,437	4,195	\$7,485.00	\$2,794.40	\$4,690.60	\$16,838.61	\$6,286.41	\$10,552.20
SANITARY SEWER SYSTEM PIPES	SS	1989	24	75	9,437	4,815	\$49,850.00	\$15,952.00	\$33,898.00	\$97,704.65	\$31,265.49	\$66,439.16
SANITARY SEWER SYSTEM PIPES	SS	1989	24	75	9,437	4,815	\$82,326.00	\$26,344.32	\$55,981.68	\$161,356.74	\$51,634.16	\$109,722.58
STORMWATER SEWER SYSTEM PIPES	SSW	1989	24	75	9,437	4,815	\$5,953.00	\$1,904.96	\$4,048.04	\$11,667.72	\$3,733.67	\$7,934.05
STORMWATER SEWER SYSTEM PIPES	SSW	1989	24	75	9,437	4,815	\$9,157.00	\$2,930.24	\$6,226.76	\$17,947.47	\$5,743.19	\$12,204.28
STORMWATER SEWER SYSTEM PIPES	SSW	1989	24	75	9,437	4,815	\$13,184.00	\$4,218.88	\$8,965.12	\$25,840.28	\$8,268.89	\$17,571.39
STORMWATER SEWER SYSTEM PIPES	SSW	1989	24	75	9,437	4,815	\$69,298.00	\$22,175.36	\$47,122.64	\$135,822.21	\$43,463.11	\$92,359.10
STORMWATER SEWER SYSTEM PIPES	SSW	1990	23	75	9,437	4,732	\$23,145.00	\$7,097.80	\$16,047.20	\$46,159.26	\$14,155.51	\$32,003.75
STORMWATER SEWER SYSTEM PIPES	SSW	1990	23	75	9,437	4,732	\$20,057.00	\$6,150.81	\$13,906.19	\$40,000.70	\$12,266.88	\$27,733.82
STORMWATER SEWER SYSTEM PIPES	SSW	1990	23	75	9,437	4,732	\$16,543.00	\$5,073.19	\$11,469.81	\$32,992.55	\$10,117.72	\$22,874.84

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
STORMWATER SEWER SYSTEM PIPES	SSW	1990	23	75	9,437	4,732	\$33,454.00	\$10,259.23	\$23,194.77	\$66,719.03	\$20,460.50	\$46,258.52
STORMWATER SEWER SYSTEM PIPES	SSW	1990	23	75	9,437	4,732	\$360,470.00	\$110,544.13	\$249,925.87	\$718,903.79	\$220,463.83	\$498,439.96
STORMWATER SEWER SYSTEM PIPES	SSW	1990	23	75	9,437	4,732	\$19,900.00	\$6,102.67	\$13,797.33	\$39,687.59	\$12,170.86	\$27,516.73
STORMWATER SEWER SYSTEM PIPES	SSW	1990	23	75	9,437	4,732	\$3,906.00	\$1,197.84	\$2,708.16	\$7,789.94	\$2,388.91	\$5,401.02
STORMWATER SEWER SYSTEM PIPES	SSW	1990	23	75	9,437	4,732	\$9,472.00	\$2,904.75	\$6,567.25	\$18,890.49	\$5,793.09	\$13,097.41
COMBINED SYSTEMS PIPES	SC	1990	23	75	9,437	4,732	\$15,597.00	\$4,783.08	\$10,813.92	\$31,105.90	\$9,539.14	\$21,566.75
STORMWATER SEWER SYTEM PIPES	SSW	1991	22	75	9,437	4,835	\$9,507.00	\$2,788.72	\$6,718.28	\$18,556.39	\$5,443.21	\$13,113.18
STORMWATER SEWER SYSTEM PIPES	SSW	1991	22	75	9,437	4,835	\$48,381.00	\$14,191.76	\$34,189.24	\$94,433.21	\$27,700.41	\$66,732.80
STORMWATER SEWER SYSTEM PIPES	SSW	1991	22	75	9,437	4,835	\$14,857.00	\$4,358.05	\$10,498.95	\$28,998.87	\$8,506.33	\$20,492.53
STORMWATER SEWER SYSTEM PIPES	SSW	1991	22	75	9,437	4,835	\$3,437.00	\$1,008.19	\$2,428.81	\$6,708.56	\$1,967.84	\$4,740.72
STORMWATER SEWER SYSTEM PIPES	SSW	1991	22	75	9,437	4,835	\$11,318.00	\$3,319.95	\$7,998.05	\$22,091.21	\$6,480.09	\$15,611.12
STORMWATER SEWER SYSTEM PIPES	SSW	1991	22	75	9,437	4,835	\$11,578.00	\$3,396.21	\$8,181.79	\$22,598.70	\$6,628.95	\$15,969.75
STORMWATER SEWER SYSTEM PIPES	SSW	1991	22	75	9,437	4,835	\$14,850.00	\$4,356.00	\$10,494.00	\$28,985.20	\$8,502.33	\$20,482.88
STORMWATER SEWER SYSTEM PIPES	SSW	1992	21	75	9,437	4,985	\$28,282.00	\$7,918.96	\$20,363.04	\$53,541.60	\$14,991.65	\$38,549.95
STORMWATER SEWER SYSTEM PIPES	SSW	1992	21	75	9,437	4,985	\$14,323.00	\$4,010.44	\$10,312.56	\$27,115.35	\$7,592.30	\$19,523.05
STORMWATER SEWER SYSTEM PIPES	SSW	1992	21	75	9,437	4,985	\$232,372.00	\$65,064.16	\$167,307.84	\$439,911.19	\$123,175.13	\$316,736.06
STORMWATER SEWER SYSTEM PIPES	SSW	1992	21	75	9,437	4,985	\$1,761.00	\$493.08	\$1,267.92	\$3,333.81	\$933.47	\$2,400.34
SANTIARY SEWER SYSTEM - PIPES	SS	1992	21	75	9,437	4,985	\$18,140.00	\$5,079.20	\$13,060.80	\$34,341.44	\$9,615.60	\$24,725.84
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$75,536.00	\$20,142.93	\$55,393.07	\$136,824.11	\$36,486.43	\$100,337.68
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$176,055.00	\$46,948.00	\$129,107.00	\$318,901.84	\$85,040.49	\$233,861.35
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$280,895.00	\$74,905.33	\$205,989.67	\$508,806.52	\$135,681.74	\$373,124.78
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$30,056.00	\$8,014.93	\$22,041.07	\$54,442.72	\$14,518.06	\$39,924.66
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$12,587.00	\$3,356.53	\$9,230.47	\$22,799.79	\$6,079.94	\$16,719.85
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$79,203.00	\$21,120.80	\$58,082.20	\$143,466.43	\$38,257.71	\$105,208.71
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$60,351.00	\$16,093.60	\$44,257.40	\$109,318.37	\$29,151.56	\$80,166.80
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$71,915.00	\$19,177.33	\$52,737.67	\$130,265.12	\$34,737.37	\$95,527.75
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$46,559.00	\$12,415.73	\$34,143.27	\$84,335.86	\$22,489.56	\$61,846.30
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$17,148.00	\$4,572.80	\$12,575.20	\$31,061.48	\$8,283.06	\$22,778.42
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$36,583.00	\$9,755.47	\$26,827.53	\$66,265.58	\$17,670.82	\$48,594.76
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$13,032.00	\$3,475.20	\$9,556.80	\$23,605.85	\$6,294.89	\$17,310.96
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$22,366.00	\$5,964.27	\$16,401.73	\$40,513.24	\$10,803.53	\$29,709.71
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$56,762.00	\$15,136.53	\$41,625.47	\$102,817.34	\$27,417.96	\$75,399.38
STORMWATER SEWER SYSTEM PIPES	SSW	1993	20	75	9,437	5,210	\$18,092.00	\$4,824.53	\$13,267.47	\$32,771.42	\$8,739.04	\$24,032.37
SANITARY SEWER SYSTEM PIPES	SS	1994	19	75	9,437	5,408	\$16,959.00	\$4,296.28	\$12,662.72	\$29,594.43	\$7,497.25	\$22,097.17
COMBINED SYSTEMS PIPES	SC	1994	19	75	9,437	5,408	\$23,292.00	\$5,900.64	\$17,391.36	\$40,645.88	\$10,296.96	\$30,348.92
COMBINED SYSTEMS PIPES	SC	1997	16	75	9,437	5,825	\$1,143.00	\$243.84	\$899.16	\$1,851.81	\$395.05	\$1,456.76
COMBINED SYSTEMS PIPES	SC	1997	16	75	9,437	5,825	\$53,982.00	\$11,516.16	\$42,465.84	\$87,457.98	\$18,657.70	\$68,800.27
COMBINED SYSTEMS PIPES	SC	1997	16	75	9,437	5,825	\$295,426.00	\$63,024.21	\$232,401.79	\$478,629.17	\$102,107.56	\$376,521.62
COMBINED SYSTEMS PIPES	SC	1997	16	75	9,437	5,825	\$76,001.00	\$16,213.55	\$59,787.45	\$123,131.67	\$26,268.09	\$96,863.58
COMBINED SYSTEMS PIPES	SC	1997	16	75	9,437	5,825	\$97,405.00	\$20,779.73	\$76,625.27	\$157,808.98	\$33,665.91	\$124,143.06
COMBINED SYSTEMS PIPES	SC	1997	16	75	9,437	5,825	\$18,365.00	\$3,917.87	\$14,447.13	\$29,753.73	\$6,347.46	\$23,406.27
COMBINED SYSTEMS PIPES	SC	1997	16	75	9,437	5,825	\$1,447.00	\$308.69	\$1,138.31	\$2,344.33	\$500.12	\$1,844.21
COMBINED SYSTEMS PIPES	SC	1998	15	75	9,437	5,920	\$19,668.00	\$3,933.60	\$15,734.40	\$31,353.42	\$6,270.68	\$25,082.73
COMBINED SYSTEMS PIPES	SC	2000	13	75	9,437	6,221	\$41,897.00	\$7,262.15	\$34,634.85	\$63,557.84	\$11,016.69	\$52,541.14
COMBINED SYSTEMS PIPES	SC	2000	13	75	9,437	6,221	\$120,668.00	\$20,915.79	\$99,752.21	\$183,053.61	\$31,729.29	\$151,324.32
COMBINED SYSTEMS PIPES	SC	2000	13	75	9,437	6,221	\$38,472.00	\$6,668.48	\$31,803.52	\$58,362.10	\$10,116.10	\$48,246.01
COMBINED SYSTEMS PIPES	SC	2000	13	75	9,437	6,221	\$78,504.00	\$13,607.36	\$64,896.64	\$119,090.73	\$20,642.39	\$98,448.34
COMBINED SYSTEMS PIPES	SC	2000	13	75	9,437	6,221	\$40,102.00	\$6,951.01	\$33,150.99	\$60,834.82	\$10,544.70	\$50,290.12
COMBINED SYSTEMS PIPES	SC	2000	13	75	9,437	6,221	\$28,331.00	\$4,910.71	\$23,420.29	\$42,978.19	\$7,449.55	\$35,528.63
COMBINED SYSTEMS PIPES	SC	2000	13	75	9,437	6,221	\$101,425.00	\$17,580.33	\$83,844.67	\$153,861.94	\$26,669.40	\$127,192.53
COMBINED SYSTEMS PIPES	SC	2000	13	75	9,437	6,221	\$22,510.00	\$3,901.73	\$18,608.27	\$34,147.72	\$5,918.94	\$28,228.78
COMBINED SYSTEMS PIPES	SC	2001	12	75	9,437	6,342	\$43,641.00	\$6,982.56	\$36,658.44	\$64,940.38	\$10,390.46	\$54,549.92
General Buildings and Structures							\$5,055,541.69	\$3,938,485.26	\$1,117,056.43	\$63,115,738.61	\$58,039,693.80	\$5,076,044.81
Motor Equipment and Vehicles							\$1,011,079.38	\$921,595.48	\$89,483.90	\$2,420,753.93	\$2,253,622.34	\$167,131.58

Appendix B
City of Harrisburg
Collection System Asset Valuation

Asset Description	Asset Category	Acquisition Year	Age (yrs)	Estimated Life Adjusted	Cost Indices		OCLD Valuation			RCNLD Valuation		
					Current Date Value	Purchase Date Value	Original Cost	Accum. Depreciation	Original Cost Less Depreciation	Replacement Cost New	Indexed Accum. Deprec.	Replacement Cost New Less Depreciation
Office Equipment and Furnishings							\$120,440.00	\$114,418.00	\$6,022.00	\$283,399.00	\$269,229.05	\$14,169.95
Pump Stations							\$933,896.00	\$887,201.20	\$46,694.80	\$17,029,998.34	\$16,178,498.43	\$851,499.92
Buried Infrastructure												
Combined Inlets, Pipes, and Manholes							\$6,219,065.00	\$4,286,729.21	\$1,932,335.79	\$170,302,595.54	\$152,652,311.06	\$17,650,284.48
Sanitary Service, Pipes, and Manholes							\$3,494,224.00	\$2,602,042.03	\$892,181.97	\$94,701,823.31	\$85,635,139.64	\$9,066,683.67
Stormwater Inlets, Pipes, and Manholes							<u>\$4,273,131.00</u>	<u>\$2,300,032.36</u>	<u>\$1,973,098.64</u>	<u>\$55,633,303.71</u>	<u>\$46,560,159.62</u>	<u>\$9,073,144.09</u>
Total							\$21,107,377.07	\$15,050,503.53	\$6,056,873.54	\$403,487,612.44	\$361,588,653.94	\$41,898,958.51