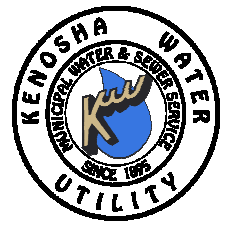


Kenosha Water Utility 2012 Annual Report



Installation of 42" intake pipe - 1916

"Providing and Protecting Kenosha's Greatest Natural Resource"

2012
ANNUAL REPORT
of the
KENOSHA WATER UTILITY
Kenosha, Wisconsin



BOARD OF WATER COMMISSIONERS (Jan - March)

G. John Ruffolo, Chairman

Patrick Juliana

Anthony Nudo, Vice Chairman

Jan Michalski

Steve Bostrom

Ray Misner

BOARD OF WATER COMMISSIONERS (April - Dec)

Jan Michalski, Chairman

Scott N. Gordon

Eric Haugaard, Vice Chairman

Patrick Juliana

Steve Bostrom

G. John Ruffolo

Edward St. Peter, General Manager

DIVISIONS

John Andersen, Director of Geographic Information Systems

Melissa Arnot, Director of Wastewater Treatment

Cathy Brnak, Director of Business Services

Robert Carlson, Director of Engineering

Curt Czarnecki, Director of Water Distribution & Sanitary Sewer Collection

Roger Field, Director of Water Production

Dave Lewis, Director of Operations

About the Cover



Installation of 42" intake pipe - 1916

The Kenosha Water Utility's original intake pipe for the O. Fred Nelson Water Production Plant was installed in 1916. It is a cast iron pipe, 42 inches in diameter that stretches to a point approximately 4,700 feet from the shore. The cost of the pipe and installation was \$78,022 in 1916.

The water utility installed a second 48" concrete intake pipe in 1976 that lies 4,300 feet from the shore. The cost of the pipe and installation was \$1,414,383.

Both are still in use today.

Table of Contents

General Manager's Letter of Transmittal	1
Water Utility Organizational Chart	2
General Statistics	3-4
Water Utility Vehicles	5
Water Utility Major Equipment	6
Engineering Division	
Letter of Transmittal – Engineering	7
Letter of Transmittal – GIS	8
Contracts Awarded	9
Developer Infrastructure Accepted	10
Engineering/GIS Recap of Significant Projects	11
Business Services	
Letter of Transmittal – Business Services	12
Principal Water Customers	13
Principal Sewer Customers	14
Wholesale Water Revenues	15
Wholesale Sewerage Service Revenues	16
Water and Sewerage Service Charges	17
Consumption Charges by Customer Class	18-19
Meter Services Report	20
Ten Year Comparison of Customer Consumption	21
Water System	
Letter of Transmittal – Water Production	22-23
Monthly Main Plant Pumping Report	24
Monthly Booster System Pumping Report	24
Main Plant Pumping Last Ten Years (graph)	25
Booster Pumping Last Ten Years (graph)	26
Finished Water Per Month (graph)	27
Monthly Rapid Sand Plant Filtration Report	28
Monthly Membrane Plant Filtration Report	29
Monthly Rapid Sand Plant Chemical Feed Report	30
Monthly Membrane Plant Chemical Feed Report	31
Monthly Laboratory Report	32-33
Water Quality Analysis – Synthetic Organic Chemicals	34
Volatile Organic Chemicals	35
Inorganic Chemicals	36
Income Statement	37
Statement of Net Position	38
Comparative Operating and Maintenance Expenses	39
Comparative Income Statement	40
Utility Plant in Service	41
Accumulated Depreciation	42

Table of Contents

Debt Service Schedules	
Water System Revenue Refunding Bonds – Series 2008	43
Advance from Municipality	44
Total Debt Repayment Schedule	45
Letter of Transmittal – Water Distribution/Sewer Collection	46
Water Distribution Pipe System	47
Water Services Added to System	48
Fire Hydrants Added to System	48
Water Main Installation Costs	49
Operating and Maintenance Report – Distribution	50
Sewerage System	
Letter of Transmittal – Wastewater Treatment Plant	51-52
Letter of Transmittal – Wastewater Treatment Division	53
Treatment Data – 5 Year Comparison	54
Treatment Data and Chemical Usage	55
BOD Removal and TSS Removal (graphs)	56
Wastewater Flow	57
Plant Operating Data	58
Sewer Main Installation Costs	59
Operating and Maintenance Report – Sewer	60
Summary of Sewer Cleaning and Televising	61
Sewage Collection Pipe System	62
Income Statement	63
Statement of Net Position	64
Comparative Operating and Maintenance Expenses	65
Comparative Income Statement	66
Utility Plant in Service	67
Accumulated Depreciation	68
Debt Service Schedules	
Clean Water Fund Loans	69-70
Advance from Municipality	71
Total Debt Repayment Schedule	72
Letter of Transmittal – Industrial Pretreatment Program	73
Summary of Influent Metals	74
Summary of Effluent Metals	75
Household Hazardous Waste	
Letter of Transmittal	76
HHW Program Participation	77
Comparative Income Statement	78
Statement of Net Position	79
Plant in Service and Accumulated Depreciation	80

Board of Water Commissioners

G. John Ruffolo, Chairman
Anthony Nudo, Vice Chairman
Steve Bostrom
Patrick Juliana
Jan Michalski
Ray Misner



**Edward St. Peter
General Manager**

4401 Green Bay Road
Kenosha, WI 53144
Phone (262) 653-4300
Fax (262) 653-4320

“Providing and Protecting Kenosha’s Greatest Natural Resource. . .Water”

May 2013

Board of Water Commissioners
Kenosha Water Utility
4401 Green Bay Road
Kenosha, WI 53144

Gentlemen,

SUBJECT: 2012 Annual Report

I respectfully submit the year 2012 Annual Report of the Kenosha Water Utility. The annual report documents the statistics of the operations, capital improvements and financial activity of our three enterprise systems, “Water System, Sewerage System, and Household Hazardous Waste Program.”

The Kenosha Water Utility continues to maintain a strong financial position. Revenues in the Water System, Sewerage System and Household Hazardous Waste exceeded expenses for the year 2012. However, reserves have dwindled as operating costs and Capital Improvement project costs, exceeded income for the year. Therefore the Board authorized a request for a water rate increase from the Wisconsin Public Service Commission. The hope was to have the new rates in place by January 2013; however, the Village of Pleasant Prairie has intervened in the process which has caused the completion of the PSC process to be delayed by several months and has cost KWU thousands of dollars to defend our position.

Each division has provided detailed descriptions of their activities over the past year. It is encouraging to review these accomplishments and realize that we have an outstanding group of directors, supervisors and staff that not only provide the highest quality water and sewerage service, meeting and exceeding all state and federal requirement, but also a team that works 24 hours/day, 7 days/week, 365 days/year tirelessly in their mission to **“Provide and Protect Kenosha’s Greatest Natural Resource ... Water.”**

Our customers are accustomed to: turning on the faucet and the water is there, pure, cold and safe; having safe and flowing sewers; having customer service second to none; and having facilities that will meet their needs well into the future. I doubt our customers give it much thought each day; and we at the Utility are committed to keeping it that way!

I thank the Board for their support and direction as we work together to serve our customers.

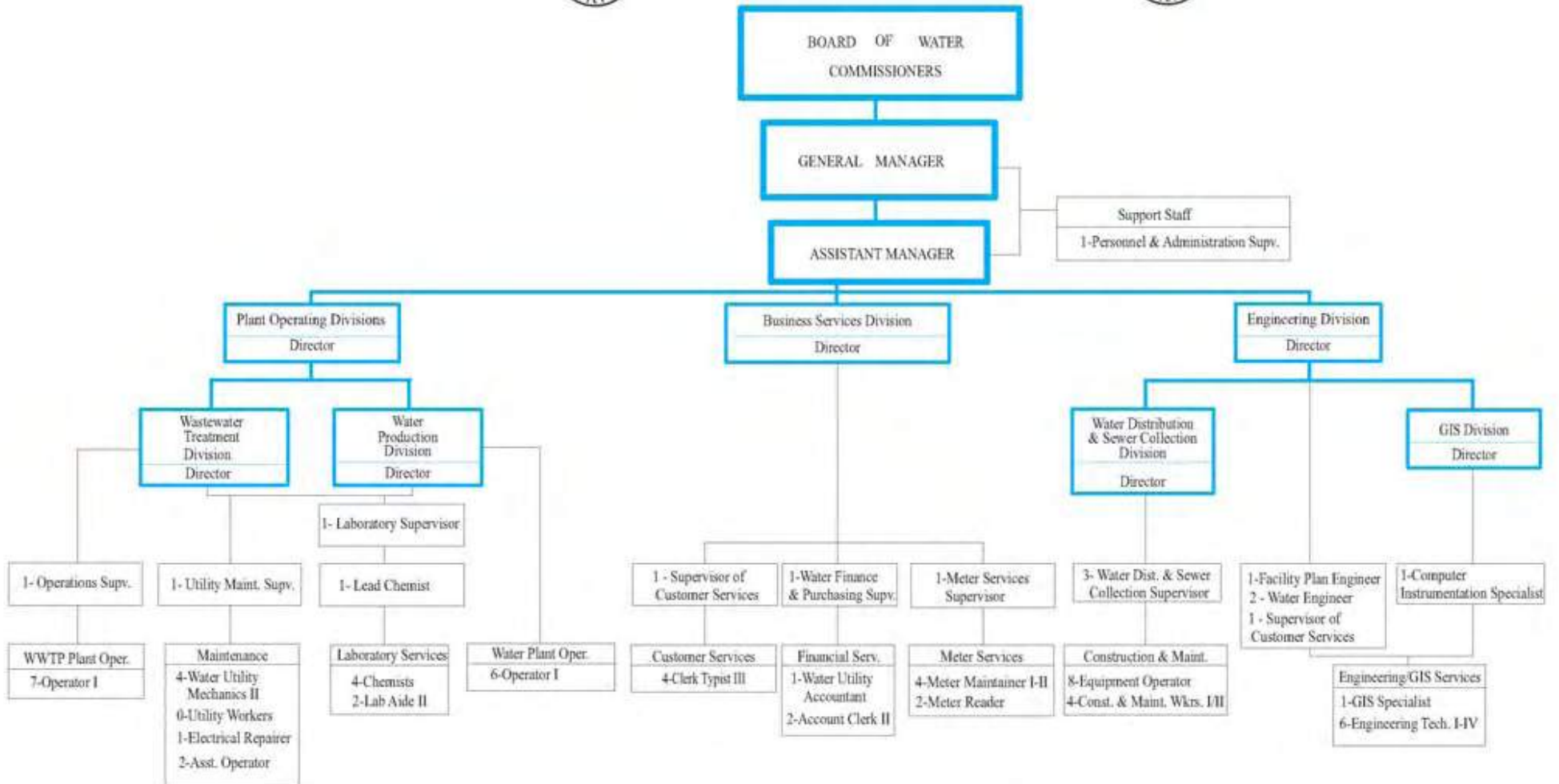
Sincerely,

A handwritten signature in black ink, appearing to read "Edward St. Peter".

Edward St. Peter, General Manager



2013 Organizational Chart



General Statistics

	<u>2012</u>	<u>2011</u>
1. Population of Kenosha, Pleasant Prairie, Somers & Bristol	133,897	133,672
Population of current service area (estimated)	118,741	118,501
Population of City of Kenosha	99,660	99,450
2. Total gallons pumped	5,328,644,000	5,219,816,000
3. Total gallons low lift water used in plant	434,164,000	518,919,000
4. Total gallons water pumped – high lift use	4,894,480,000	4,700,897,000
5. Total gallons high lift water accounted for, not metered	117,795,000	133,347,000
6. Total gallons water pumped to distribution system	4,776,685,000	4,567,550,000
7. Increase (decrease) from previous year	4.58%	2.55%
8. Total gallons passed through customers' meters	4,273,731,000	4,041,027,000
9. Percent of water accounted for	87%	86%
10. Consumption:		
Minimum gallons pumped in any one day	9,120,000	9,160,000
	Dec. 26, 2012	Nov. 18, 2011
Maximum gallons pumped in any one day	27,400,000	23,430,000
	July 4, 2012	July 17, 2011
11. Total daily consumption – Average	11,708,852	11,071,307
Average daily consumption per capita – gallons per day	98.61	93.43
12. Total number of services	29,632	29,616
Active accounts (total meters less in stock and deduct meters)	30,970	30,950
Number of services added (net)	16	100
Per mile of pipe	83.09	83.08
Persons per service (City of Kenosha)	3.36	3.36
13. Pipe in distribution system (in miles)	356.64	356.46
Size range in diameter	1" - 36"	1" - 36"
Pressure range – pounds per square inch	40 – 80	40 – 80
Population per mile (City of Kenosha)	279.44	278.99
14. Valves for distribution system (except hydrant valves)	5,695	5,689
Total installed for year	6	29
15. Hydrants for distribution system	3,230	3,227
Total installed for year (25 new - 22 retired = 3 additional)	3	25
Per mile of pipe	9.06	9.05
16. Utility operating revenue	\$ 12,350,753	\$ 11,874,554
Net Operating Income	\$ 1,844,339	\$ 1,212,474
Net Income (all expense and revenue)	\$ 1,009,124	\$ 326,711

	<u>2012</u>	<u>2011</u>
17. Operating and maintenance expenses	\$ 5,755,629	\$ 6,099,475
Per mile of pipe to expense	\$ 16,146.63	\$ 17,111.25
Per million gallons to distribution system	\$ 1,260.11	\$ 1,335.39
18. Tax Equivalent – Water	\$ 2,339,274	\$ 2,153,880
Increase (decrease) from previous year	8.6%	6.6%
Percent of operating revenue	19.7%	18.1%
19. Depreciation	\$ 2,411,511	\$ 2,408,725
Percent of operating revenue	20.3%	20.3%
20. Production Cost Analysis of Energy Used		
Total electrical costs (high and low lift)	\$ 606,737	\$ 521,294
Cost for pumping (per million gallons)	\$ 113.86	\$ 99.87
Total electrical costs (booster system)	\$ 186,048	\$ 155,902
Cost of re-pumping for booster system (per million gallons)	\$ 70.93	\$ 65.32
Total electrical energy consumed at plant	\$ 606,738	\$ 601,359
Total natural gas energy consumed at plant	\$ 41,698	\$ 62,170
21. Production Cost Analysis of Chemicals Used		
Sand Filters		
Potassium Permanganate – total pounds	–	–
Sulfate of Aluminum – total tons	306.7	308.2
Chlorine – total tons	19.8	22.4
Hydrofluosilicic acid – total tons (liquid weight)	52.5	47.5
Polyphosphate – total tons (liquid weight)	9.7	6.2
Total cost per million gallons of filtered water	\$50.08	\$51.47
Membrane Filters		
Chlorine – total tons	14.4	16.4
Hydrofluosilicic acid – total tons (liquid weight)	48.3	52.0
Polyphosphate – total tons (liquid weight)	9.4	6.9
Total cost per million gallons of filtered water	\$37.40	\$33.26
22. Plant Capacities:		
Treatment plant	45.0 MGD	45.0 MGD
Low lift pumps	50.0 MGD	50.0 MGD
High lift pumps	48.0 MGD	48.0 MGD
Lake intake	102.0 MGD	102.0 MGD
Emergency intake	15.0 MGD	15.0 MGD
23. Water usage in booster service area (million gallons)	2,623	2,387
24. Average number of General Customers by class		
Residential	27,365	27,334
Commercial	3,315	3,317
Industrial	63	66
Private Fire Services	464	455
Public Authorities	185	192
Irrigation	3	3
Sales for Resale		
Village of Pleasant Prairie	7	7
Town of Somers	8	8
Town of Bristol	2	2

Water Utility Vehicles – 2012

Distribution & Sewer Collection

Water Construction

Fleet #	Description
2091	1992 Ford Truck w/ Utility Service Body
2115	1993 IHC Tandem Axle Dump Truck
2151	1993 Chevrolet Pickup
2305	1996 Chevrolet Pickup
2359	1996 GMC Pickup
2420	1998 IHC Tandem Axle Dump Truck
2434	1999 GMC 1 Ton Dump Truck
2701	2003 GMC 1 Ton Dump Truck
2746	2004 GMC Pickup
2850	2006 GMC Pickup
2852	2006 GMC Pickup
2854	2006 GMC 1 Ton Dump Truck
2856	2006 GMC Crew Cab w/ Utility Service Body
2878	2006 Sterling Tandem Axle Dump Truck
2957	2008 Freightliner Tandem Axle Dump Truck
2959	2008 GMC Van
3070	2010 Ford Crew Cab w/ Utility Service Body
3124	2011 GMC Pickup

Water Production

2842	2006 GMC Pickup
2961	2008 GMC Pickup
3004	2008 Dodge Grand Caravan
3105	2011 GMC Pickup

Engineering Services

2148	1993 GMC Pickup
2219	1994 Ford Pickup
2474	1999 Ford Utility Van
2523	2000 Jeep Grand Cherokee
2535	2001 Ford Pickup
2553	2001 GMC Jimmy
2649	2003 GMC Pickup
2653	2003 GMC Pickup
2660	2003 Dodge Van
2715	2003 GMC Van
2747	2004 GMC Pickup
2883	2006 GMC Pickup
2960	2008 GMC Pickup
2962	2008 Jeep Liberty
3024	2009 Jeep Grand Cherokee

Sewer Repair/Inspection

Fleet #	Description
2089	1992 Ford Pickup Flatbed-Shoring Truck
2116	1993 GMC 1 Ton Dump Truck
2299	1996 IHC Tandem Axle Dump Truck
2364	1997 Chevrolet Van
2367	1997 Ford Rodder Truck
2421	1998 IHC Tandem Axle Dump Truck
2422	1998 Ford Van
2472	1999 Sewer Flusher Vacuum
2554	2000 Vactor Sewer Cleaner
2851	2006 GMC Pickup
2884	2006 TV Truck – Ford Chassis
2930	2007 GMC Pickup
3043	2009 Ford F450 w/ Utility Service Body

Meter Shop

2428	1998 Ford Pickup
2682	2003 GMC Van
2737	2004 GMC Van
2849	2006 GMC Van w/ Utility Service Body
2862	2006 GMC Van
3127	2011 GMC Van

Administration/Customer Service

2265	1995 GMC Safari Minivan
3073	2010 Ford Escape Hybrid

Wastewater Treatment

1970	1990 Camel Sewer Cleaner
2063	1991 Ford w/ Galbraith Container System
2217	1994 GMC Pickup
2266	1995 GMC Pickup with Crane
2427	1998 Ford Pickup
2430	1998 GMC 1 Ton Dump Truck
2559	2001 Sterling Dump Truck
2652	2003 Ford Utility Truck with Crane
2700	2003 GMC Van
2714	2004 Ford Pickup
2771	2004 Jeep Liberty
2843	2006 GMC Pickup with Plow
2866	2006 GMC Pickup
2945	2008 Freightliner Quad Axle Dump Truck
2966	2008 GMC Van
3106	2011 GMC Pickup

Water Utility Major Equipment – 2012

Distribution & Sewer Collection

Water Construction

Fleet #	Description
453-00	1958 Engresser Pipe Thawer
455-19	1986 Tapmate Tap Machine
1943	1989 Caterpillar Forklift
	1989 Wach Power Valve Turner
	1991 Dowel Drill Machine
	1992 Wach Power Valve Turner
2206	1994 Smith Air Compressor
2226	1994 Broderson Hydraulic Hammer
2366	1997 Case Wheel Loader
2837	2005 JCB Tractor Loader Backhoe
2968	2007 Case Tractor Loader Backhoe
2970	2008 Case Tractor Loader Backhoe

Water Production

	1998 Mitsubishi Fork Truck
	2005 Kubota Tractor
2890	2006 Kubota Mower

Sewer Repair

Fleet #	Description
2840	2005 JCB Tractor Loader Backhoe

Wastewater Treatment

	1980 6" Marlow Pump
1543	1985 Massey Ferguson Tractor Loader
2018	1990 John Deere Tractor w/ Snowblower
2236	1994 John Deere Mower
	1995 6" Marlow Pump
	1998 4" Barnes Submersible Pump
	1998 John Deere Mower
	1999 8" Thompson Pump
	2000 6" Gormann-Rupp Pump
	2000 8" Godwin Pump
	2003 New Holland Skid Loader
2819	2006 Nissan Forklift
2893	2007 JCB Wheel Loader

Water Service Centre

	1996 Kubota Tractor
--	---------------------

Engineering Services

4401 Green Bay Road
Kenosha WI 53144

Phone (262) 653-4315

Fax (262) 653-4303



"Providing and Protecting Kenosha's Greatest Natural Resource"

May 2013

Mr. Edward St. Peter, General Manager
Kenosha Water Utility
4401 Green Bay Road
Kenosha WI 53144

Dear Mr. St. Peter,

Subject: 2012 Annual Report – Engineering Services Division

I respectfully submit the annual report for the Engineering Services Division for the year 2012.

The Engineering Division continues to provide a variety of engineering services for our various operating divisions, city departments, public agencies and developers. This year was an unusual year in that the Division prepared and awarded only two contracts totaling \$74,388.00. This was due to financial considerations that superseded our planned water main replacement program, and the uncertainty and lack of final acceptance of the Joint Forest Park Study which has delayed potential sewer rehabilitation and replacement in this critical area. A list of these contracts is included in this report.

Notable projects for the year included the continuation of our Digester Gas heating and heat recovery improvements taking place at our Wastewater Treatment Facility and planning for the next phase which will include greater bio gas production and utilization, enhanced solids digestion and sludge dewatering improvements.

No new developer installed infrastructure projects were started in 2012. There was no other significant developer activity during the year although inquiries are picking up and we expect things to improve. State of Wisconsin funded highway projects continue throughout our service area. These projects impact our facilities resulting in a very busy year for our field crews including sanitary sewer re-locations, water main re-locations and offsets, fire hydrant re-locations and manhole adjustments. This work is necessary to clear new highway facilities. Fortunately, most of our costs for this work are recoverable from the State at 90% to 100% funding depending on the category of work. We expect this level of activity to continue through 2014.

Work on our wet weather flow monitoring within the sanitary sewer system, including physical inspections, smoke testing and analysis of potential solutions for reducing clear water entry into the sanitary sewer system continued throughout the year. Our multi-year project is examining areas within our sewer collection system that have experienced capacity problems during severe wet weather conditions. This effort will continue to help determine the most cost effective solutions to these wet weather capacity issues.

On behalf of the staff of the Engineering Services Division, I would like to thank all Utility employees and our Board of Water Commissioners whose teamwork helped make 2012 a great and successful year.

Sincerely,

A handwritten signature in cursive script that reads "Robert D. Carlson".

Robert D. Carlson, P.E.
Director of Engineering

Geographic Information Systems

4401 Green Bay Road
Kenosha WI 53144

Phone (262) 653-4315
Fax (262) 653-4303



“Providing and Protecting Kenosha’s Greatest Natural Resource”

May 2013

Mr. Edward St. Peter, General Manager
Kenosha Water Utility
4401 Green Bay Road
Kenosha, WI 53144

Dear Mr. St. Peter,

Subject: 2012 Annual Report – Geographic Information Systems Division

The Geographic Information Systems (GIS) team had a very active and successful year. This year the GIS team not only continued to enhance our master digital map with new and useful features but we were also involved with many new projects. Listed below are some of the various legacy and new projects we accomplished for this year:

- Implemented a new Supervisory Control and Data Acquisition (SCADA) system at the Wastewater Treatment Plant which consisted of new software, hardware, testing and employee training.
- Installed and developed a common reporting solution called Water Information Management system (WIMS) for both the Wastewater Treatment and Production plants.
- Updated the Kenosha Water Utility’s website (www.kenoshawater.org) with valuable customer information.
- Upgraded our main computer servers to enhance speed, security and reliability.
- Developed and enhanced various web-based applications that will allow users remote access to the different applications and resources.
- Installed updates and upgrades to both the Linux and Windows operating systems.
- Maintained various databases that make up the master digital map.
- Designed, developed and implemented various programs for users to access the GIS data.
- Continued to update and enhance the mobile mapping program.

The GIS team would like to thank you and the Board of Water Commissioners for their continued support. I would also like to thank the GIS staff and all of the divisions within the Water Utility for their support and patience throughout the year.

Respectfully submitted,

A handwritten signature in cursive script that reads "John N. Andersen".

John N. Andersen
Director of Geographic Information Systems

2012 Engineering Service Contracts Awarded

<u>Project</u>	<u>Contractor</u>	<u>Description</u>	<u>Awarded Cost</u>
2012-01-PROD	Van's Roofing, Inc.	Roof Replacement - O. Fred Nelson Water Production Plant	\$ 26,250.00
2012-02-S	Cicchini Asphalt LLC	Access Drive - 6627-3rd Avenue	\$ 48,138.00

2012 Developer Infrastructure Accepted

	Water Mains	Hydrants	Services
CVS/Kenosha Gateway	\$ 102,764.80	\$ 37,500.00	\$ 10,500.00
	Sanitary Sewer Mains		
CVS/Kenosha Gateway	\$ 74,608.29		

Note: Total cost includes developer and KWU costs.

**2012 Engineering Staff and G.I.S. Personnel
Recap of Significant Projects**

	<u>Hours</u>
<u>Water Production Engineering - Total Hours 588</u>	
Water Treatment Plant & Reservoir Maintenance	588
<u>Sewerage System Engineering - Total Hours 5,180</u>	
Sanitary Sewer Locates (Digger's Hotline)	2,051
Sump Pump Inspection	1,370
Sanitary Sewer System Flow Study/Inspection	365
Wastewater Treatment Plant Maintenance	873
Energy-Optimized Resource Recovery System	160
Sewer Repair, Cleaning and Inspection	117
Sludge Press Building Structure	124
SCADA Replacement	120
<u>Water Distribution System - Total Hours 3,839</u>	
Water System Locates (Digger's Hotline)	2,776
Maintenance of Mains, Services and Hydrants	1,063
<u>Water Main Installed by Kenosha Water Utility Contract - Total Hours 525</u>	
Water Main Replacement - Various Locations	391
I94 & Hwy 50	134
<u>Sanitary Sewer Installed by Kenosha Water Utility Contract - Total Hours 392</u>	
Sanitary Sewer Relays - Various Locations	261
I94 & Hwy 50	131
<u>New Development - Total Hours 50</u>	
Plan/Project Review	50
<u>GIS Infrastructure Mapping - Total Hours 1,147</u>	
Water Infrastructure	827
Sewer Infrastructure	320

Business Services

4401 Green Bay Road
Kenosha WI 53144

Phone (262) 653-4300
Fax (262) 653-4320



“Providing and Protecting Kenosha’s Greatest Natural Resource”

May 2013

Mr. Edward St. Peter, General Manager
Kenosha Water Utility
4401 Green Bay Road
Kenosha, WI 53144

Dear Mr. St. Peter,

SUBJECT: 2012 Annual Report – Business Services Division

I respectfully submit the Annual Report of the Kenosha Water Utility Business Services Division.

This division combines the talents and resources of personnel in the areas of customer service, meter reading, meter maintenance and accounting. This combined group strives to provide prompt and accurate service to both our internal and external customers. In addition to general questions about bills, Business Services attempts to be proactive in resolving matters before they become complaints.

The meter shop personnel have continued the meter testing program for meters larger than 1-inch according to Public Service Commission guidelines. A program has been started for conversion of all meters to touch pad remote reading devices. These have proven to be more reliable for reading purposes as well as the assurance that meters are operational. Currently all but sixteen accounts have touchpads compared to 55% of accounts ten years ago. New Neptune handheld meter reading equipment was installed during 2012; this equipment operates on bluetooth radio frequency. In addition, 409 radio units have been installed on accounts that are difficult to read for safety reasons.

The finance division supports the entire Utility by providing payroll, accounting, accounts payable, budgeting, purchasing and other services. The rate of return for the water unit was 3.79% based on an average net rate base valued at \$57,146,109. The rate of return for the sewer unit was 5.15% based on an average net rate base valued at \$37,150,811.

I would like to thank you and the other members of the utility management for their continued guidance and support. Once again, I wish to thank my staff for their dedication and fine work attitude which are key to getting the job done. Business Services Division employees, together with other divisions, will work to insure that the Kenosha Water Utility continues to “Provide and Protect Kenosha's Greatest Natural Resource.”

Sincerely,

A handwritten signature in black ink that reads 'Cathy Brnak'.

Cathy Brnak
Director of Business Services

Water and Sewerage Service Charges – 2012

Water Rates

Water rates for municipally owned water utilities in Wisconsin must be approved and authorized by the Public Service Commission of Wisconsin. The Kenosha Water Utility has been allowed a water rate which would provide a 5.5% rate of return on the water utility net investment rate base. The Kenosha Water Utility policy is to maintain water rates that will provide 1.3 times coverage of maximum annual debt service by net income of the system.

Sewerage Service Rates

Sewer service rates for Kenosha are authorized by the Board of Water Commissioners. The Kenosha Water Utility policy is to maintain sewer rates that will provide 1.4 times coverage of maximum annual debt service by net income of the system.

Water Utility General Service Billing

The Kenosha Water Utility issues water and sewer service bills on a bi-monthly basis to residential, commercial and public customers. High consumption customers are billed monthly. The "Sale for Resale" category was added in 1990 and is billed monthly.

Water Rates Effective December 31, 2009 Public Fire Protection Rates Effective December 31, 2009

Meter Size	Public Fire Protection Bi-Monthly Charge	Meter Service Bi-Monthly Charge
5/8 Inch	\$5.24	\$9.64
3/4 Inch	5.24	9.64
1 Inch	6.72	17.10
1-1/2 Inch	10.48	27.80
2 Inch	15.62	38.48
3 Inch	20.94	66.28
4 Inch	26.10	98.36
6 Inch	31.22	173.20
8 Inch	36.56	258.74
10 Inch	41.70	365.64
12 Inch	47.04	472.56

Plus volume charges:

First 1,700 cubic feet used each month or
3,400 cubic feet used each two months - \$ 1.59/100 cu. ft.
Next 23,300 cubic feet used each month or
46,600 cubic feet used each two months - \$ 1.52/100 cu. ft.
Over 25,000 cubic feet used each month or
50,000 cubic feet used each two months - \$ 1.18/100 cu. ft.

Sewerage Service Rates Effective December 31, 2008

\$2.41 monthly or \$4.82 bi-monthly - Plus \$1.93 / 100 cubic feet used

**CONSUMPTION CHARGES BY CUSTOMER CLASS
BASED ON BILLING DATE, NOT ACCRUAL BASIS**

RESIDENTIAL

Bill Mo.	Water		Public Fire Protection	HHW Charge	Sewerage		Spr. Cr.
	Cons.Ccf	Charge			Cons.Ccf	Charge	
Apr 2012	164,446	\$ 392,079.90	\$ 70,909.52	\$ 13,391.50	163,403	\$ 379,929.28	—
May 2012	160,036	388,734.73	72,820.42	13,233.50	152,022	357,256.37	—
June 2012	162,212	388,665.81	70,921.48	13,394.50	161,112	375,510.06	—
July 2012	194,388	433,141.89	72,828.28	13,235.50	183,314	366,070.66	\$ 51,581.18
Aug 2012	221,668	482,452.32	70,955.54	13,402.00	219,964	371,567.03	117,565.95
Sept 2012	373,056	721,440.72	72,864.96	13,240.50	351,891	382,411.40	360,624.36
Oct 2012	249,871	526,581.67	71,027.76	13,415.00	247,816	374,420.49	168,510.23
Nov 2012	233,158	503,909.39	72,888.54	13,245.50	220,214	370,074.55	118,853.26
Dec 2012	174,731	408,545.24	71,051.34	13,417.00	173,548	347,694.31	51,920.86
Jan 2013	172,927	409,309.01	72,904.26	13,248.50	164,524	381,465.89	—
Feb 2013	173,446	406,544.93	71,085.40	13,423.50	172,190	397,026.04	—
Mar 2013	171,338	406,840.34	72,917.36	13,251.00	162,738	378,025.64	—
Totals	2,451,277	\$ 5,468,245.95	\$ 863,174.86	\$ 159,898.00	2,372,736	\$ 4,481,451.72	\$ 869,055.84

COMMERCIAL

Bill Mo.	Water		Public Fire Protection	HHW Charge	Sewerage	
	Cons.Ccf	Charge			Cons.Ccf	Charge
Apr 2012	73,397	\$ 139,096.89	\$ 11,701.30	\$ 683.50	70,970	\$ 145,483.97
May 2012	107,485	199,598.14	13,599.54	458.00	105,088	209,015.42
June 2012	73,504	139,134.95	11,701.30	684.50	71,342	145,399.06
July 2012	121,599	219,790.96	13,596.13	457.00	110,402	218,961.62
Aug 2012	88,908	161,925.94	11,781.97	684.00	77,929	158,207.90
Sept 2012	191,010	320,430.77	13,604.33	456.00	134,793	266,170.47
Oct 2012	104,112	185,496.18	11,851.17	680.00	88,756	179,382.40
Nov 2012	165,067	284,885.55	13,635.67	455.00	123,820	244,697.40
Dec 2012	83,381	153,913.89	11,835.55	680.00	77,613	157,831.43
Jan 2013	118,129	216,744.90	13,628.55	455.00	107,154	212,523.67
Feb 2013	72,276	138,180.64	11,754.83	679.50	69,501	141,981.70
Mar 2013	107,833	199,352.11	13,639.77	455.50	104,636	208,139.33
Totals	1,306,701	\$ 2,358,550.92	\$ 152,330.11	\$ 6,828.00	1,142,004	\$ 2,287,794.37

SALE FOR RESALE

Billing Month	Cons.Ccf	Water Charge	PPF
Apr 2012	83,807	\$ 108,961.90	\$ 6,393.46
May 2012	85,318	110,859.67	6,393.46
June 2012	90,408	117,337.87	6,393.46
July 2012	107,959	139,860.90	6,393.46
Aug 2012	181,907	225,420.23	6,393.46
Sept 2012	218,132	276,231.38	6,393.46
Oct 2012	138,313	178,763.37	6,393.46
Nov 2012	111,198	143,956.83	6,393.46
Dec 2012	109,394	142,109.89	6,393.46
Jan 2013	82,457	107,317.78	6,393.46
Feb 2013	70,874	92,450.43	6,393.46
Mar 2013	93,761	121,698.91	6,393.46
Totals	1,373,528	\$ 1,764,969.16	\$ 76,721.52

**CONSUMPTION CHARGES BY CUSTOMER CLASS
BASED ON BILLING DATE, NOT ACCRUAL BASIS**

PUBLIC

Bill Mo.	Water		Public Fire Protection	Sewerage	
	Cons.Ccf	Charge		Cons.Ccf	Charge
Apr 2012	15,976	\$ 17,807.98	\$ 1,483.41	9,031	\$ 17,866.04
May 2012	16,278	16,916.84	1,045.41	9,104	17,724.77
June 2012	16,907	18,028.58	1,483.41	9,206	18,203.79
July 2012	20,245	19,285.33	1,045.41	9,262	18,044.48
Aug 2012	27,048	32,398.72	1,493.89	13,077	25,679.64
Sept 2012	28,878	29,490.88	1,038.69	9,584	18,728.47
Oct 2012	27,262	29,484.45	1,414.21	11,478	22,569.47
Nov 2012	22,011	22,636.44	1,038.69	8,647	15,456.75
Dec 2012	22,853	23,699.06	1,422.02	11,087	21,814.84
Jan 2013	16,734	16,500.55	1,012.59	8,164	15,908.45
Feb 2013	17,000	17,189.88	1,429.83	8,539	16,897.20
Mar 2013	15,972	15,380.44	1,012.59	8,149	15,899.96
Totals	247,164	\$ 258,819.15	\$ 14,920.15	115,328	\$ 224,793.86

INDUSTRIAL

Bill Mo.	Water		Public Fire Protection	Sewerage	
	Cons.Ccf	Charge		Cons.Ccf	Charge
Apr 2012	28,207	\$ 35,341.46	\$ 296.57	16,249	\$ 76,242.86
May 2012	25,469	33,080.63	491.69	15,755	75,207.35
June 2012	31,946	39,718.42	296.57	18,575	93,184.64
July 2012	36,121	45,761.99	491.69	19,926	93,257.30
Aug 2012	35,877	44,485.93	296.57	21,305	113,341.50
Sept 2012	39,710	50,670.41	491.69	23,590	91,397.17
Oct 2012	38,245	47,297.57	289.85	23,294	77,184.79
Nov 2012	26,237	34,195.74	465.59	19,208	80,364.44
Dec 2012	35,748	44,210.14	295.09	20,163	78,229.12
Jan 2013	33,364	42,237.22	470.43	18,886	92,803.87
Feb 2013	24,772	31,203.16	281.25	16,295	58,407.54
Mar 2013	33,658	42,625.52	463.71	19,256	84,623.57
Totals	389,354	\$ 490,828.19	\$ 4,630.70	232,502	\$ 1,014,244.15

IRRIGATION

Bill Mo.	Cons.Ccf	Water Charge	Public Fire Protection
Apr 2012	-	\$ 9.64	\$ 5.24
May 2012	123	227.82	15.62
June 2012	-	9.64	5.24
July 2012	570	1,018.14	15.62
Aug 2012	46	81.91	5.24
Sept 2012	1,331	1,835.90	15.62
Oct 2012	83	138.18	5.24
Nov 2012	759	1,154.39	15.62
Dec 2012	5	17.59	5.24
Jan 2013	23	75.05	15.62
Feb 2013	-	9.64	5.24
Mar 2013	-	38.48	15.62
Totals	2,940	\$ 4,616.38	\$ 125.16

Meter Services Report - 2012

<u>Meter Size</u>	<u>New Accounts</u>	<u>Tested/ Upgraded</u>	<u>Total Meters</u>
5/8" Meters	10	689	25,022
3/4" Meters	33	193	4,351
1" Meters	1	84	917
1-1/2" Meters	3	191	600
2" Meters	4	235	687
3" Meters	-	61	116
4" Meters	-	34	68
6" Meters	-	39	45
8" Meters	-	9	9
10" Meters	-	2	2
Total	51	1,537	31,817

New Private Fire Lines **8**

Meter Shop Activity

Set New Accounts	51
20 Year Meter Change Outs	320
Install Radio Read Units	394
Remove Meter (test and replace)	472
Check Readings (high/low consumption, etc.)	2,909
Shut Offs, Take Out Seasonals	357
Repair Outside Register/Touch Pad	584
Pressure Tests	15
Locate/Clean Curb Box	300
Service Break Checks/Trace Services	20
Shut off at Curb (non-payment & customer requests)	546
Meters Bench Tested/Rebuild & Retest	294
Frozen Services	0
Frozen Meters	18
Pool Fills	0
Large Meter-Field Testing	117
Total Service Calls	6,397

Water Production Plant

100 51st Place
Kenosha WI 53140

Phone (262) 653-4330
Fax (262) 653-4362



“Providing and Protecting Kenosha’s Greatest Natural Resource”

May 2013

Mr. Edward St. Peter, General Manager
Kenosha Water Utility
4401 Green Bay Rd.
Kenosha, WI 53144

Subject: 2012 Annual Report for the O. Fred Nelson Water Production Plant

Dear Mr. St. Peter,

The annual report for the O. Fred Nelson Water Production Plant of the Kenosha Water Utility is hereby respectfully submitted.

The Kenosha Water Utility’s Water Production Division provided the highest quality drinking water to our customers in 2012. A total of 4.9 billion gallons was pumped into the distribution system, with a maximum day of 27.4 million gallons on July 4th. *The average daily flow of 13.4 MGD was our highest output since 1989.* The average tap water turbidity was 0.029 NTU’s (Nephelometric Turbidity Units) and the average chlorine residual was 1.2 mg/l. The following is a summary of projects completed by the Production Division in 2012 as part of the Capital Improvement Program:

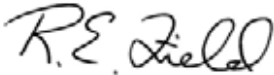
- **Roof Repairs and Replacement** – The roofs over the laboratory, offices, control room, lunch room and elevator shaft were replaced due to several leaks
- **Intake Crib Repair** – The intake crib for the 48” intake line was repaired. Several timbers were replaced and some existing timbers that had fallen apart were reinstalled.
- **Lead/Copper Study** – An ongoing study of the effectiveness of corrosion control additives in the drinking water was completed in 2012.
- **Low Lift Pump Variable Frequency Drive Replacement** – The last remaining original low lift variable frequency drive was replaced in 2012. The old Robicon unit needed repairs, but parts are no longer available, so it was replaced with a Rockwell Automation unit.
- **Inspection of 60th Street West Tank and the 67th Street and 122nd Avenue Tank** – A remote operated vehicle (ROV) inspection was conducted on the 67th Street tank. A full drain-down and clean-out inspection was conducted on the 60th Street West tank. Both tanks are in good condition, although some exterior corrosion on the 60th Street tank should be addressed in the near future.
- **UPS System Replacement** – The plant-wide UPS system was replaced. (The original unit had computer components that were designed in the mid 1990’s.)

Other projects undertaken at the O. Fred Nelson Water Production Plant include painting in the low lift pump station; planting one hundred oak trees at the 30th Avenue tank site and evergreens and shrubs at the sedimentation basin; control room and lunch room upgrades; mixer bearing repairs; valve replacement on some of the continuous micromembrane filtration (CMF) units in train three; and troubleshooting sand plant valve actuators and CMF plant shut-down issues.

There was one personnel change at the plant in 2012. Thad Jensen transferred to the Wastewater Treatment Plant and was replaced by Steve Alexander, who came to us from the Distribution Division.

The Production Division would like to thank the Engineering and Business Services Divisions for their support throughout the year. Thanks also to the Distribution Division for assisting with the heavier maintenance tasks and to the Wastewater Treatment Plant for electrical and mechanical upgrades and repairs. We would also like to thank Dave Lewis, Ed St. Peter and the Board of Water Commissioners for providing us with the tools and equipment needed to ensure that we continue providing the best possible drinking water to the City of Kenosha, the Villages of Pleasant Prairie and Bristol, and the Town of Somers.

Sincerely,

A handwritten signature in black ink that reads "R.E. Field". The signature is written in a cursive, slightly slanted style.

Roger E. Field, P.E.
Director of Water Production

Kenosha Water Utility

Production Division

Main Plant Pumping

2012

Month	Pumpage X 1000 Gallons				Electricity	
	High Lift	Daily Average	Low Lift	Daily Average	Pumping	Cost/MG
January	362,601	11,697	399,903	12,900	\$ 49,341	\$ 123.38
February	328,505	11,328	362,710	12,507	46,054	126.97
March	336,255	10,847	371,978	11,999	42,748	114.92
April	341,300	11,377	380,389	12,680	47,023	123.62
May	408,260	13,170	446,409	14,400	42,508	95.22
June	581,046	19,368	622,237	20,741	59,008	94.83
July	624,601	20,148	671,239	21,653	70,251	104.66
August	476,541	15,372	518,890	16,738	56,765	109.40
September	400,121	13,337	433,852	14,462	55,074	126.94
October	373,504	12,049	390,439	12,595	42,695	109.35
November	332,152	11,072	363,577	12,119	47,313	130.13
December	329,594	10,632	367,021	11,839	47,957	130.67
Total	4,894,480		5,328,644		\$ 606,737	
Average	407,873	13,366	444,054	14,553	\$ 50,561	\$ 115.84

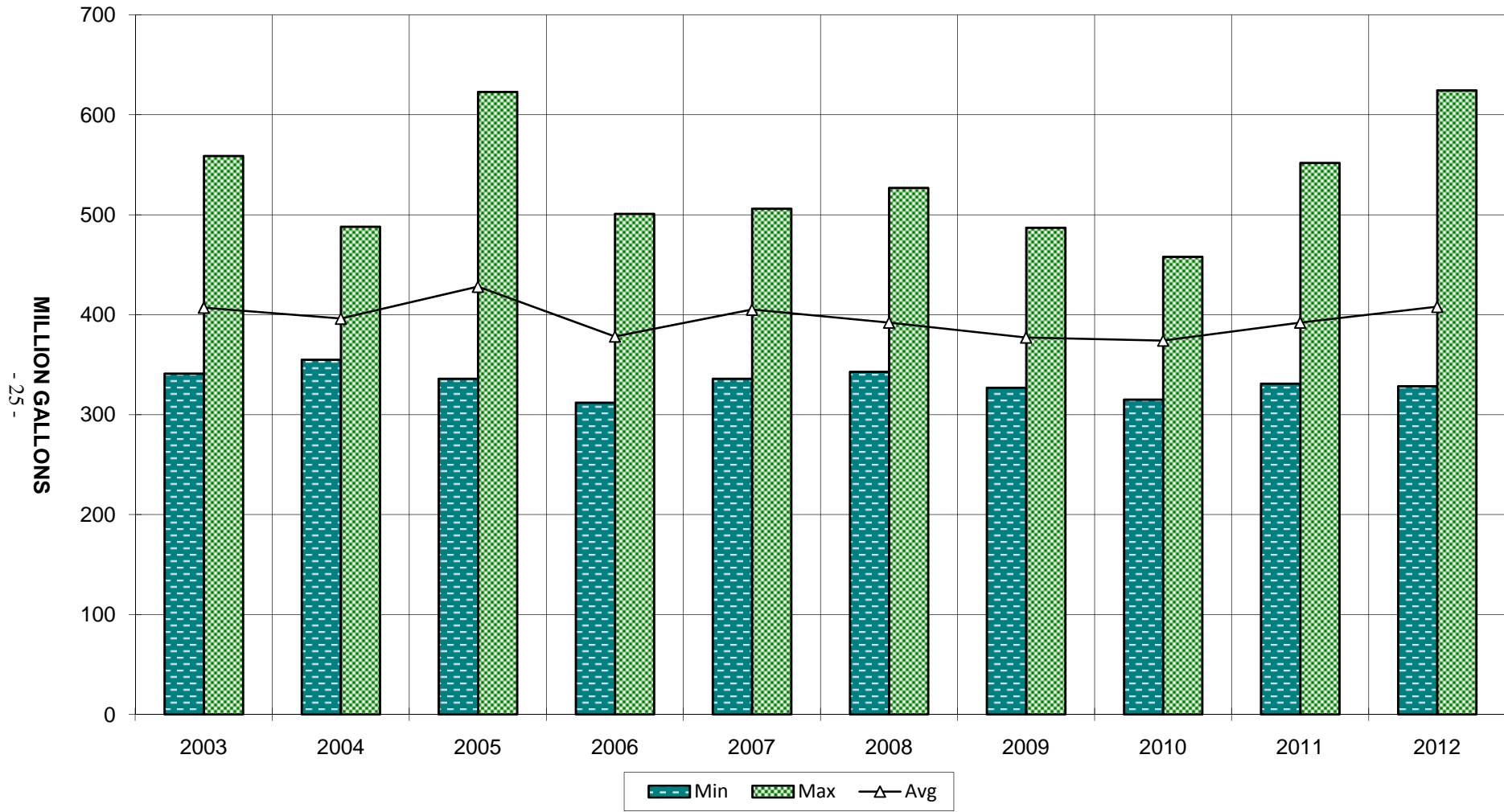
Booster System Pumping

2012

Month	Pumpage X 1000 gal	Total Power Cost	Pumping Power Cost	Total Cost/MG	Pumping Cost/MG
January	195,850	\$ 15,448	\$ 13,948	\$ 78.88	\$ 71.22
February	183,680	16,179	14,679	88.08	79.92
March	187,030	14,374	12,874	76.85	68.83
April	191,730	17,109	15,609	89.23	81.41
May	226,080	16,747	15,247	74.08	67.44
June	321,800	22,402	20,902	69.61	64.95
July	321,240	24,187	22,687	75.29	70.62
August	256,970	18,091	16,591	70.40	64.56
September	203,310	17,590	16,090	86.52	79.14
October	194,730	14,544	13,044	74.69	66.99
November	173,030	13,222	11,722	76.41	67.75
December	167,470	14,155	12,655	84.52	75.57
Total	2,622,920	\$ 204,048	\$ 186,048		
Average	218,577	\$ 17,004	\$ 15,504	\$ 78.71	\$ 71.53

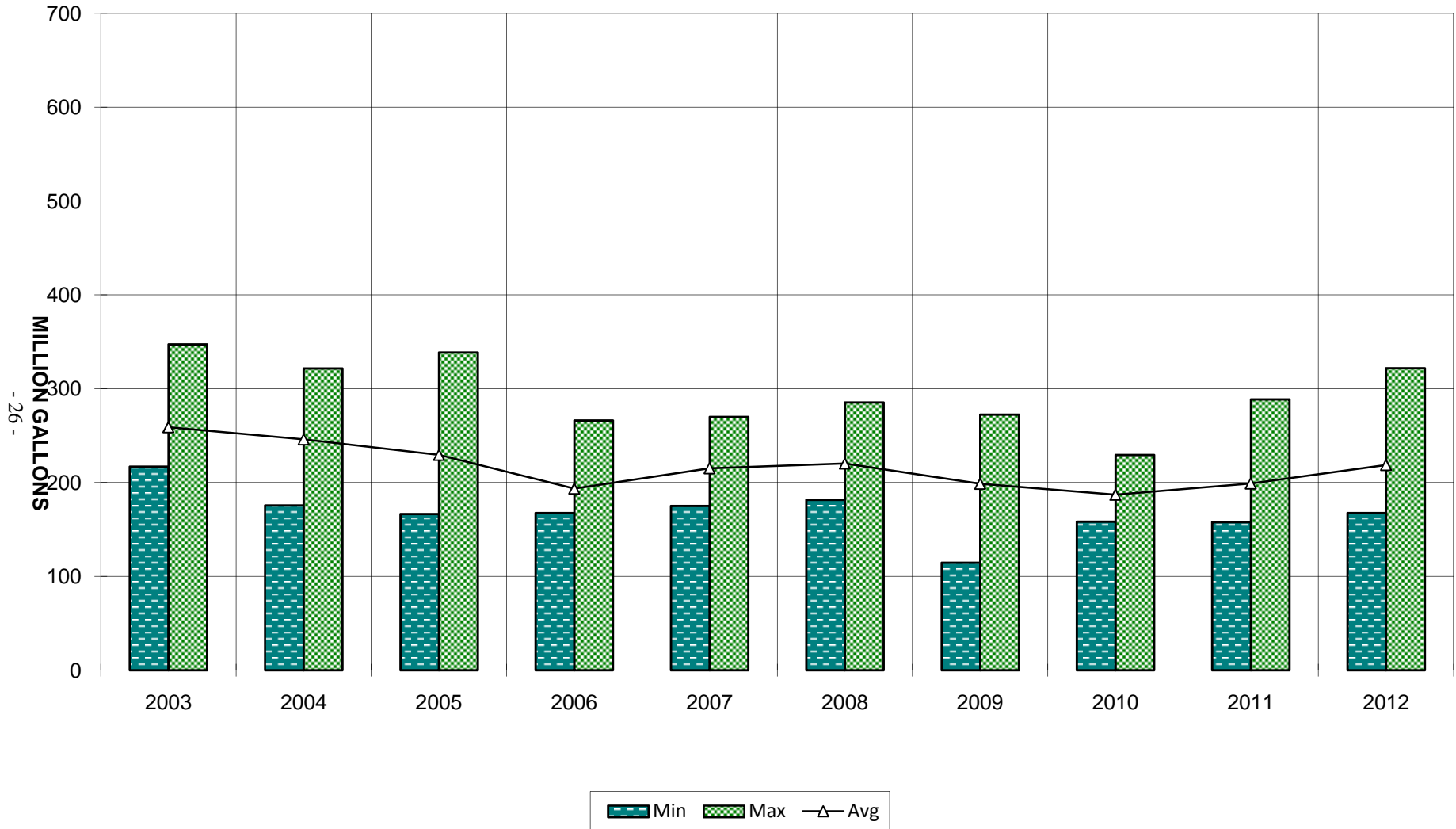
Main Plant Pumping Last Ten Years

Monthly Flow - Million Gallons



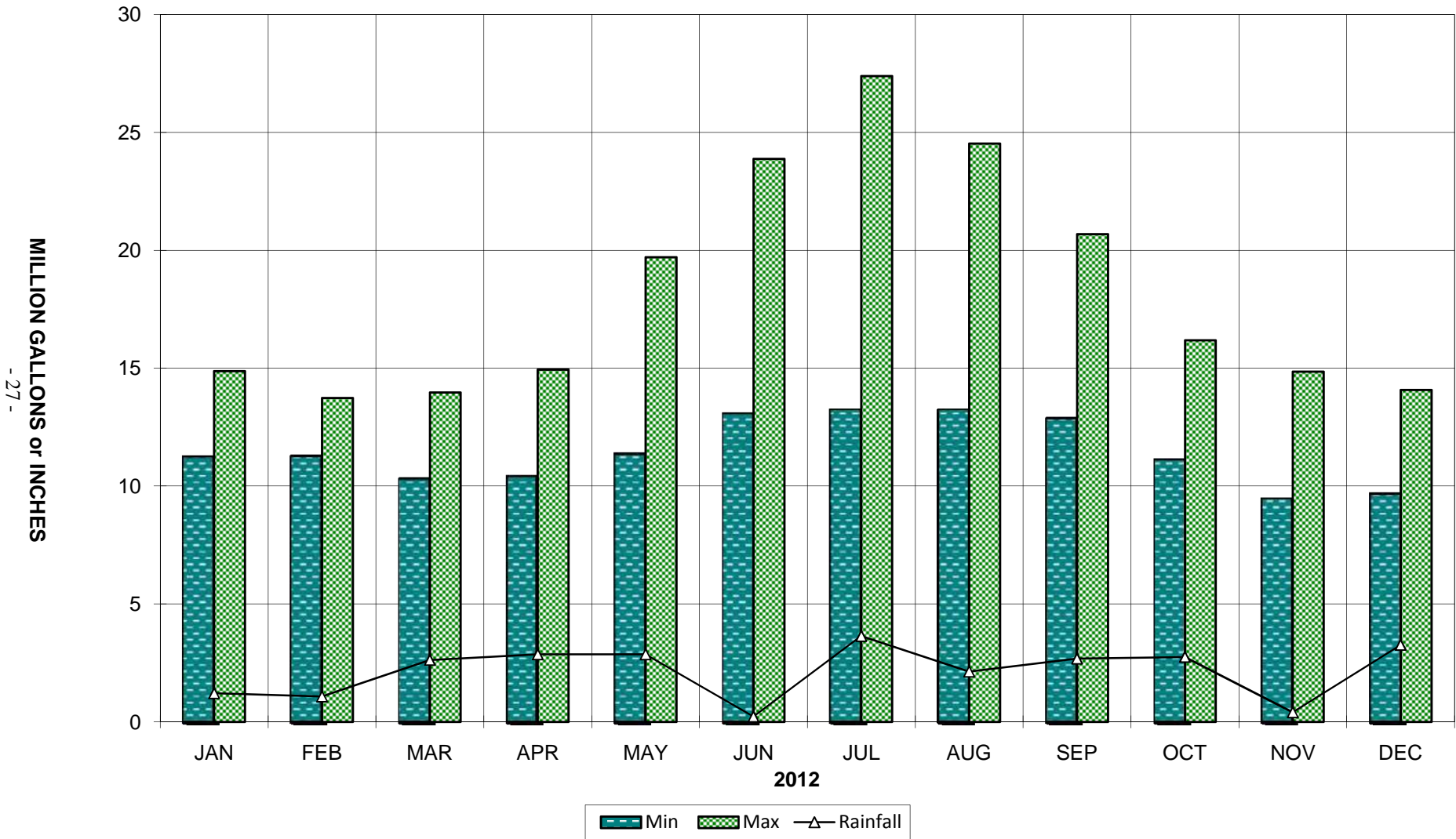
Booster Pumping Last Ten Years

Monthly Flow - Million Gallons



Finished Water Per Month Compared to Rainfall

Daily Flow MG - Total Precipitation in Inches



Kenosha Water Utility

Production Division

Rapid Sand Plant Filtration Report

2012

Month	Pumpage (1000 gal.)			
	Total Water Treated	Max Day	Min Day	Avg Day
January	169,968	6,453	4,923	5,483
February	151,225	6,166	4,181	5,215
March	147,067	6,317	3,753	4,744
April	156,944	8,622	3,245	5,231
May	206,777	10,463	4,733	6,670
June	389,746	18,188	6,331	12,992
July	394,967	18,525	6,825	12,741
August	262,402	10,975	5,113	8,465
September	215,607	10,192	4,963	7,187
October	180,575	7,432	4,427	5,825
November	151,790	6,479	3,430	5,060
December	139,451	5,590	3,698	4,498
Total	2,566,519			
Average	213,877	9,617	4,635	7,009

Month	Washwater (1000 gal.)	% Rated Capacity	Filter Run Hours		
			Max	Min	Avg
January	1,290	27	81	79	80
February	1,320	26	80	79	80
March	1,410	24	80	78	80
April	1,320	26	80	60	79
May	1,820	33	80	46	71
June	3,740	65	76	31	48
July	4,660	64	62	25	41
August	2,910	42	71	12	50
September	1,810	36	80	38	62
October	1,580	29	81	69	78
November	1,350	25	80	77	79
December	1,220	22	80	35	71
Total	24,430				
Average	2,036	35	78	52	68

Kenosha Water Utility

Production Division

Membrane Plant Filtration Report

2012

Month	Pumpage (1000 gal.)			
	Total Water Treated	Max Day	Min Day	Avg Day
January	192,633	7,199	5,643	6,214
February	177,280	6,321	5,862	6,113
March	189,188	6,211	5,867	6,103
April	184,356	7,253	4,090	6,145
May	201,483	8,044	5,849	6,499
June	191,300	8,030	5,611	6,377
July	229,634	8,919	5,919	7,408
August	262,402	10,975	5,113	8,465
September	184,514	8,122	5,366	6,150
October	180,575	7,432	4,427	5,825
November	180,362	6,318	5,773	6,012
December	190,143	6,460	5,571	6,134
Total	2,363,870			
Average	196,989	7,607	5,424	6,454

Month	Washwater Raw (1000 gal.)	% Rated Capacity	CIP Run Hours		
			Max	Min	Avg
January	29,620	48	507	483	499
February	27,030	47	546	483	504
March	28,490	47	501	500	500
April	27,960	38	504	500	500
May	31,000	41	502	229	473
June	31,200	35	502	157	391
July	33,810	37	503	90	398
August	30,590	42	507	120	370
September	23,340	34	504	196	427
October	26,890	36	503	172	400
November	19,010	43	505	291	422
December	24,650	48	501	154	357
Total	333,590				
Average	27,799	42	507	281	437

CIP - Clean-in-Place

**Kenosha Water Utility
Production Division
Rapid Sand Plant Chemical Feed Report
2012**

Month	Alum		Chlorine		Fluoride	
	Pounds	Ib/MG	Pounds	Ib/MG	Pounds	Ib/MG
January	54,484	320.55	2,513	14.79	7,057	41.52
February	43,506	287.69	2,189	14.48	5,972	39.49
March	39,761	270.36	2,110	14.35	5,872	39.93
April	45,918	292.58	2,468	15.73	6,509	41.47
May	53,723	259.81	3,049	14.75	8,573	41.46
June	78,175	200.58	5,764	14.79	16,017	41.10
July	79,452	201.16	6,385	16.17	16,307	41.29
August	55,226	210.46	4,292	16.36	9,673	36.86
September	44,890	208.20	3,555	16.49	8,874	41.16
October	40,650	225.11	2,872	15.90	7,809	43.25
November	37,822	249.17	2,266	14.93	6,492	42.77
December	39,874	285.94	2,099	15.05	5,850	41.95
Total	613,481		39,562		105,005	
Average	51,123	250.97	3,297	15.31	8,750	41.02

Month	Potassium Permanganate		Polyphosphate		Total Chemical Cost	
	Pounds	Ib/MG	Pounds	Ib/MG	Total \$	Cost/MG
January	0	0.00	1,261	7.42	\$ 10,221	\$ 60.13
February	0	0.00	1,259	8.33	8,466	55.98
March	0	0.00	1,214	8.25	7,927	53.90
April	0	0.00	1,240	7.90	8,987	57.26
May	0	0.00	1,398	6.76	10,805	52.25
June	0	0.00	2,020	5.18	17,126	43.94
July	0	0.00	2,407	6.09	17,785	45.03
August	0	0.00	2,058	7.84	12,035	45.86
September	0	0.00	2,027	9.40	10,241	47.50
October	0	0.00	1,568	8.68	8,950	49.56
November	0	0.00	1,451	9.56	7,990	52.64
December	0	0.00	1,415	10.15	7,991	57.30
Total	0		19,318		\$ 128,524	
Average	0	0.00	1,610	7.96	\$ 10,710	\$ 51.78

**Kenosha Water Utility
Production Division
Membrane Plant Chemical Feed Report
2012**

Cleaning Chemicals								
Month	Sodium Hydroxide		Hydrogen Peroxide		EDTA		Sulfuric Acid	
	Pounds	lb/MG	Pounds	lb/MG	Pounds	lb/MG	Pounds	lb/MG
January	6,844	35.53	619	3.21	854	4.43	578	3.00
February	5,703	32.17	516	2.91	711	4.01	482	2.72
March	6,844	36.18	619	3.27	854	4.51	578	3.06
April	5,323	28.87	481	2.61	664	3.60	450	2.44
May	6,844	33.97	619	3.07	854	4.24	578	2.87
June	8,745	45.71	791	4.13	1,091	5.70	739	3.86
July	9,125	39.74	825	3.59	1,138	4.96	771	3.36
August	6,844	26.08	619	2.36	854	3.25	578	2.20
September	4,563	24.73	413	2.24	569	3.08	386	2.09
October	9,125	50.53	825	4.57	1,138	6.30	771	4.27
November	6,844	37.95	619	3.43	854	4.73	578	3.20
December	9,125	47.99	825	4.34	1,138	5.98	771	4.05
Total	85,929		7,771		10,719		7,260	
Average	7,161	36.62	648	3.31	893	4.57	605	3.09

Process Chemicals								
Month	Chlorine		Fluoride		Polyphosphate		Total Cost *	
	Pounds	lb/MG	Pounds	lb/MG	Pounds	lb/MG	Total \$	\$/MG
January	2,312	12.00	7,999	41.52	1,429	7.42	\$ 5,971	\$ 31.00
February	2,091	11.79	7,000	39.49	1,477	8.33	6,343	35.78
March	2,232	11.80	7,554	39.93	1,562	8.26	7,159	37.84
April	2,362	12.81	7,645	41.47	1,456	7.90	6,409	34.76
May	2,369	11.76	8,353	41.46	1,362	6.76	7,308	36.27
June	1,970	10.30	7,862	41.10	992	5.19	7,762	40.58
July	2,703	11.77	9,481	41.29	1,399	6.09	8,880	38.67
August	3,434	13.09	9,673	36.86	2,058	7.84	8,325	31.73
September	2,382	12.91	7,594	41.16	1,735	9.40	6,120	33.17
October	2,298	12.73	7,809	43.25	1,568	8.68	8,309	46.01
November	2,197	12.18	7,714	42.77	1,725	9.56	7,223	40.05
December	2,365	12.44	7,976	41.95	1,929	10.14	8,594	45.20
Total	28,715		96,660		18,692		\$ 88,403	
Average	2,393	12.13	8,055	41.02	1,558	7.96	\$ 7,367	\$ 37.59

* Includes cleaning and process chemicals

MG - million gallons

Kenosha Water Utility
Production Division
Laboratory Report
2012

Month	Alkalinity Average mg/l		pH Average pH units		Conductivity µS/cm	
	Raw	Tap	Raw	Tap	Raw	Tap
January	111	102	8.24	7.51	332	340
February	110	103	8.20	7.52	324	331
March	108	103	8.22	7.51	427	423
April	110	103	8.27	7.52	490	460
May	107	100	8.44	7.65	436	441
June	106	99	8.41	7.64	412	418
July	107	101	8.46	7.67	444	451
August	107	101	8.41	7.64	327	328
September	107	100	8.43	7.66	369	374
October	107	100	8.39	7.68	401	406
November	108	101	8.41	7.68	435	445
December	108	100	8.38	7.66	271	273
Average	108	101	8.36	7.61	389	391

Month	Hardness mg/l		Temp Raw ° F		
	Raw	Tap	Max	Min	Avg
January	146	146	37	33	35
February	138	138	37	33	35
March	138	134	48	35	42
April	138	142	52	46	49
May	132	132	56	46	51
June	136	132	63	47	53
July	138	132	76	51	67
August	138	150	76	51	69
September	134	134	71	55	64
October	134	136	62	46	54
November	140	134	49	41	45
December	138	138	44	36	41
Average	138	137	56	43	50

mg/l - milligrams per Liter
µS/cm - microsiemens per centimeter

**Kenosha Water Utility
Production Division
Laboratory Report
2012**

Month	Turbidity NTU								
	Rapid Sand Raw			Membrane Raw			Tap		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
January	73.5	7.6	28.2	74.7	7.8	31.0	0.034	0.028	0.029
February	89.7	5.2	27.4	94.2	5.6	29.7	0.034	0.027	0.029
March	48.1	3.2	14.7	49.6	3.7	16.8	0.030	0.025	0.027
April	44.0	4.6	11.4	68.4	6.2	16.2	0.032	0.025	0.028
May	30.0	4.0	8.3	48.4	6.3	14.4	0.032	0.025	0.027
June	39.4	3.2	9.1	67.2	3.2	17.4	0.033	0.027	0.029
July	16.2	1.4	5.5	17.8	3.5	9.0	0.035	0.029	0.031
August	49.6	0.6	5.1	69.7	1.5	9.3	0.038	0.032	0.029
September	9.0	0.9	2.9	12.9	2.2	5.0	0.034	0.028	0.030
October	208.4	1.5	14.3	184.9	2.9	14.3	0.036	0.027	0.029
November	121.9	2.1	15.7	95.0	2.4	14.3	0.044	0.026	0.029
December	150.9	3.1	29.0	159.4	4.1	31.7	0.034	0.027	0.029
Average	73.4	3.1	14.3	78.5	4.1	17.4	0.035	0.027	0.029

Month	PO ₄ Average mg/l	Fluoride Composite Average mg/l	Chlorine Residual mg/l		
			Tap		
	Tap	Tap	Max	Min	Avg
January	0.18	1.11	1.2	1.0	1.2
February	0.18	1.06	1.3	1.1	1.2
March	0.18	1.06	1.2	1.0	1.2
April	0.18	1.05	1.2	1.0	1.1
May	0.17	1.02	1.2	1.1	1.2
June	0.14	1.01	1.2	1.1	1.2
July	0.14	0.99	1.3	1.1	1.2
August	0.17	1.02	1.4	1.1	1.3
September	0.19	1.07	1.3	1.2	1.3
October	0.18	1.07	1.3	1.1	1.2
November	0.18	1.11	1.3	1.1	1.2
December	0.18	1.10	1.3	1.1	1.2
Average	0.17	1.06	1.3	1.1	1.2

NTU - Nephelometric Turbidity Units

PO₄ - Polyphosphate

mg/l - milligrams per liter

Synthetic Organic Chemicals

Parameters	Minimum Detection Level µg/L	Kenosha Results µg/L	Maximum Contaminant Level µg/L
Alachlor (Lasso)	0.029	ND	2
Aldicarb Total	0.35	ND	3
Aldicarb Sulfoxide	0.32	ND	4
Aldicarb Sulfone	0.34	ND	2
Aldrin	0.47	ND	na
Atrazine	0.06	ND	3
Benzo(a)pyrene	0.02	ND	0.2
Butachlor	0.032	ND	na
Carbaryl	0.34	ND	na
Carbofuran	0.38	ND	40
Chlordane	0.033	ND	2
2, 4-D	0.058	ND	70
Dalapon	0.7	ND	200
Dicamba	0.23	ND	na
Dieldrin	0.067	ND	na
Di (2-ethylhexyl) adipate	0.6	ND	400
Di (2-ethylhexyl) phthalate	0.6	ND	6
Dinoseb	0.14	ND	7
Diquat	0.32	ND	20
Endothall	0.51	ND	100
Endrin	0.01	ND	2.0
Glyphosate (Round-up)	4.7	ND	700
Heptachlor	0.014	ND	0.4
Heptachlorepoxyde	0.02	ND	0.2
Hexachlorobenzene	0.038	ND	1
Hexachlorocyclopentadiene	0.027	ND	50
3-Hydroxycarbofuran	0.39	ND	na
BHC Gamma (Lindane)	0.02	ND	0.2
Methoxychlor	0.029	ND	40
Methomyl	0.36	ND	na
Dual (Metolachlor)	0.029	ND	na
Metribuzin (Sencor)	0.067	ND	na
Oxamyl (Vydate)	0.32	ND	200
PCB Total ****	0.1	ND	0.5
Pentachlorophenol	0.022	ND	1
Picloram (Tordan)	0.072	ND	500
Propachlor	0.036	ND	na
2,4,5-TP (Silvex)	0.16	ND	50
Simazine	0.067	ND	4
2,3,7,8-TCDD (Dioxin)	0.000005	ND	0.00003
Toxaphene	0.33	ND	3

na – not applicable

ND – not detected

µg/L – micrograms per Liter or parts per billion

**** PCB 1016 (0.030); PCB 1221 (0.042); PCB 1232 (0.091); PCB 1242 (0.11);
PCB 1248 (0.047); PCB 1254 (0.032); PCB 1260 (0.026)

Volatile Organic Chemicals

Parameters	Minimum Detection Level µg/L	Level Found Kenosha Results µg/L	Maximum Contaminant Level µg/L
Benzene	0.12	ND	5
Bromobenzene	0.21	ND	na
Bromodichloromethane	0.21	6.9	80
Bromoform	0.33	ND	80
Bromomethane	0.26	ND	na
Carbon Tetrachloride	0.19	ND	5
Chloroethane	1	ND	na
Chloroform	0.11	16.7	80
Chloromethane	0.16	ND	na
1,2-Chlorotoluene (o-)	0.15	ND	na
1,4-Chlorotoluene (p-)	0.11	ND	na
Dibromochloromethane	0.27	3.3	80
Dibromomethane	0.24	ND	na
1,3-Dichlorobenzene (m-)	0.11	ND	na
1,2-Dichlorobenzene (o-)	0.17	ND	600
1,4-Dichlorobenzene 9 (p-)	0.12	ND	75
1,1-Dichloroethane	0.14	ND	na
1,2-Dichloroethane	0.16	ND	5
1,1-Dichloroethylene	0.11	ND	7
1,2-Dichloroethylene, cis	0.13	ND	70
1,2-Dichloroethylene, trans	0.11	ND	100
Dichloromethane	0.34	ND	5
1,2-Dichloropropane	0.16	ND	5
1,3-Dichloropropane	0.26	ND	na
2,2-Dichloropropane	0.13	ND	na
1,1-Dichloropropene	0.11	ND	na
1,3-Dichloropropene	0.4	ND	na
Ethylbenzene	0.11	ND	700
Chlorobenzene	0.13	ND	100
Styrene	0.14	ND	100
1,1,1,2-Tetrachloroethane	0.18	ND	na
1,1,2,2-Tetrachloroethane	0.33	ND	na
Tetrachloroethylene	0.1	ND	5
Toluene	0.11	ND	1,000
1,2,4-Trichlorobenzene	0.36	ND	70
1,1,1-Trichloroethane	0.12	ND	200
1,1,2-Trichloroethane	0.28	ND	5
Trichloroethylene	0.12	ND	5
1,2,3-Trichloropropane	0.46	ND	na
Vinyl Chloride	0.13	ND	0.2
Xylene Total	0.33	ND	10,000

na – not applicable

ND – not detected

µg/L – micrograms per Liter or parts per billion

All parameters are sampled at the distribution system entry point every three years per WDNR regulations.

Inorganic Chemicals

Parameters	Minimum Detection Level mg/L	Level Found Kenosha Results mg/L	Maximum Contaminant Level mg/L	Sample Location
Alkalinity Total CaCO ₃	1.0	110 max	na	Entry point
Antimony Total	0.00013	0.00018	0.006	Entry point
Arsenic Total	0.0005	ND	0.01	Entry point
Barium Total	0.0001	0.021	2	Entry point
Beryllium Total	0.00013	ND	0.004	Entry point
Cadmium Total	0.0001	ND	0.005	Entry point
Chromium Total	0.0005	ND	0.1	Entry point
Copper	0.0056	0.13	1.3 (AL)	Residential taps
Cyanide	0.005	0.007	0.2	Entry point
Fluoride Total	0.05	1.08 avg	4	Entry point
Haloacetic Acids	0.001	0.0106 avg	0.06	Maximum residence
Hardness Total CaCO ₃	1	150 max	500	Entry Point
Lead	0.0056	0.0063	0.015 (AL)	Residential taps
Mercury Total	0.000042	ND	0.002	Entry point
Nickel Total	0.0005	0.00098	0.1	Entry point
Nitrate as N	0.025	0.53	10	Entry point
Nitrite	0.0067	ND	1	Entry point
pH Lab	0.01pH	7.82 pH max	na	Entry point
Selenium Total	0.002	ND	0.05	Entry point
Sodium Total	0.05	9.6	na	Entry point
Sulfate Total	2.5	27	na	Entry point
Thallium Total	0.0001	ND	0.002	Entry point
Total Trihalomethanes	0.0005	0.0302 avg	0.08	Maximum residence

ND – not detected

mg /L – milligrams per Liter or parts per million

AL – Action Level

na – not applicable

Entry Point – Where water enters the distribution system.

Maximum residence – A point of maximum residence time in the distribution system.

Water System
Income Statement – 2012

Sales of Water

Unmetered Sales to General Customers	\$ 6,554.93	
Residential Water Sales	5,476,061.62	
Commercial Water Sales	2,393,156.92	
Industrial Water Sales	484,689.25	
Private Fire Protection	153,011.00	
Public Fire Protection	1,117,126.11	
Sales to Public Authorities	258,544.35	
Sales for Resale	1,786,272.90	
Sales to Irrigation Customers	<u>4,722.06</u>	
Total Sales of Water		11,680,139.14

Other Operating Revenues

Penalties	148,055.06	
Other Water Revenue	105,048.27	
Allocated Services	121,362.24	
Miscellaneous Service Revenues	<u>296,148.62</u>	
Total Other Operating Revenues		<u>670,614.19</u>

Total Operating Revenues

12,350,753.33

Operating Expenses

Production Plant	2,185,017.07	
Distribution System	1,786,233.48	
Customer Accounting & Collection	409,188.57	
Administration	1,375,189.76	
Depreciation	2,411,511.43	
Taxes	<u>2,339,273.95</u>	
Total Operating Expenses		<u>10,506,414.26</u>

Utility Operating Income

1,844,339.07

Other Income

Interest Income	41,044.50	
Other Non-operating Income	<u>5,845.10</u>	
Total Other Income		46,889.60

Non-operating Expenses

Interest on Long-term Debt	974,571.31	
Amortization of Debt Expense	<u>(92,466.68)</u>	273,657.81
Total Non-operating Expenses		<u>882,104.63</u>

Net Income before Capital Contributions

1,009,124.04

Capital Contributions

125,319.51

Net Income

\$ 1,134,443.55

**Water System
Statement of Net Position
December 31, 2012**

Assets

Utility Plant

Utility Plant in Service	\$ 109,795,986.80	
Work in Progress - Water Plant	714.67	
Work in Progress - Water System	255,170.87	
Accumulated Depreciation	<u>(32,424,955.53)</u>	
Net Plant in Service		77,626,916.81

Nonutility Property

Nonutility Property	20,370.78	
Accumulated Depreciation - Nonutility Property	<u>(2,370.78)</u>	
Net Nonutility Property		18,000.00

Current Assets

Cash and Cash Equivalents	2,566,101.92	
Restricted Cash and Cash Equivalents	-	
Customer Accounts Receivable	1,299,657.09	
Receivable from Municipality	693,703.62	
Unbilled Revenues	1,241,087.10	
Other Accounts Receivable	33,053.48	
Materials and Supplies	405,936.19	
Accrued Interest Receivable	541.78	
Other Current Assets	<u>80,459.83</u>	
Total Current Assets		6,320,541.01

Other Assets

Restricted Investments	8,177,000.00	
Deferred Charges	2,761,461.88	
Assessments Receivable	58,230.39	
Debt Issuance Costs	<u>21,531.27</u>	
Total Other Assets		11,018,223.54

Total Assets

94,983,681.36

Liabilities

Current Liabilities

Current Portion of Water Revenue Bonds	1,975,000.00	
Accrued Taxes	2,392,969.00	
Accounts Payable	239,221.88	
Accrued Interest Payable	59,636.51	
Current Portion of Advance from Municipality	34,257.30	
Payable to Municipality	347,223.24	
Deferred Credits	<u>41,614.47</u>	
Total Current Liabilities		5,089,922.40

Non-current Liabilities

Long-term Debt

Water Revenue Bonds - Series 2008 (net of unamortized premium in the amount of \$454,775.40)	13,926,362.66	
Advance from Municipality	241,118.70	
Advance from Sewerage Unit	<u>5,000,000.00</u>	
Total Long-term Debt		19,167,481.36
Accrued Compensated Absences		314,369.24
Worker's Compensation Accrued Liability		56,651.00
Other Postemployment Benefits		<u>594,456.00</u>
Total Non-current Liabilities		20,132,957.60

Total Liabilities

25,222,880.00

Net Position

Invested in Capital Assets, net of related debt	64,380,448.08	
Restricted for Debt Service	5,858,362.50	
Unrestricted	<u>(478,009.22)</u>	

Total Net Position

\$ 69,760,801.36

Water System
Comparative Operating and Maintenance Expenses

	2012	2011	2010
Source of Supply Expenses			
Maintenance of Lake Intakes	-	\$ 1,655.00	\$ 2,112.00
Miscellaneous	\$ 9,625.00	125.00	-
	<u>9,625.00</u>	<u>1,780.00</u>	<u>2,112.00</u>
Pumping Expenses			
<u>Operation</u>			
Supervision and Engineering	103,218.69	126,427.81	116,746.13
Fuel - Electricity and Gas	858,006.70	863,655.22	733,855.13
Labor	108,110.16	107,958.57	114,861.22
Miscellaneous Expense	4,406.95	7,538.40	5,122.65
	<u>1,073,742.50</u>	<u>1,105,580.00</u>	<u>970,585.13</u>
<u>Maintenance</u>			
Structures and Improvements	14,312.17	38,043.87	28,293.43
Power Production Equipment	1,000.50	3,390.61	3,199.16
Pumping Equipment	59,107.99	82,360.20	61,828.81
	<u>74,420.66</u>	<u>123,794.68</u>	<u>93,321.40</u>
Water Treatment Expenses			
<u>Operation</u>			
Supervision and Engineering	53,497.53	58,933.78	56,163.97
Lead Testing Program	622.05	3,049.20	-
Chemicals	189,715.39	160,825.45	172,654.36
Labor	243,161.55	260,740.40	240,388.36
Miscellaneous Expense	21,721.69	21,232.31	17,452.29
	<u>508,718.21</u>	<u>504,781.14</u>	<u>486,658.98</u>
<u>Maintenance</u>			
Structures and Improvements	74,424.79	38,057.07	42,805.56
Water Treatment Expense	444,085.91	462,864.74	453,058.06
	<u>518,510.70</u>	<u>500,921.81</u>	<u>495,863.62</u>
	<u>2,185,017.07</u>	<u>2,236,857.63</u>	<u>2,048,541.13</u>
Transmission and Distribution Expenses			
<u>Operation</u>			
Supervision and Engineering	140,678.82	114,923.24	133,225.96
Transmission and Distribution Lines	36,782.27	26,281.41	21,520.84
Meter Expense	71,337.13	70,498.88	61,922.82
Customer Installation Expense	15,920.92	2,258.69	9,687.60
Miscellaneous Expense	487,665.26	527,403.12	511,807.97
	<u>752,384.40</u>	<u>741,365.34</u>	<u>738,165.19</u>
<u>Maintenance</u>			
Supervision and Engineering	26,497.59	31,163.84	31,566.57
Maintenance of Standpipes/Reservoirs	25,074.36	54,293.98	35,368.81
Transmission Mains	757,585.23	699,612.40	622,152.73
Services	136,840.24	241,502.89	204,284.97
Meters	54,936.38	47,896.14	39,011.47
Hydrants	32,915.28	51,976.01	43,944.39
	<u>1,033,849.08</u>	<u>1,126,445.26</u>	<u>976,328.94</u>
	<u>1,786,233.48</u>	<u>1,867,810.60</u>	<u>1,714,494.13</u>
Customer Account Expenses			
Customer Accounting and Collector	350,786.04	347,448.62	350,109.87
Meter Reading	58,402.53	67,637.78	62,199.72
	<u>409,188.57</u>	<u>415,086.40</u>	<u>412,309.59</u>
Administrative and General Expenses			
Administrative and General Salaries	163,363.42	178,701.45	173,670.66
Office Supplies and Expense	61,117.74	34,886.64	30,977.65
Outside Services Employed	137,946.71	114,206.87	122,993.52
Property Insurance	54,234.47	56,610.26	40,182.17
Employee Benefits and Pensions	908,870.33	1,146,188.53	1,127,822.04
Regulatory Commission Expense	22,123.15	14,123.53	11,302.98
Miscellaneous Expense	27,533.94	35,003.24	21,528.54
	<u>1,375,189.76</u>	<u>1,579,720.52</u>	<u>1,528,477.56</u>
Total Operation and Maintenance Expenses			
Utility Taxes	2,339,273.95	2,153,880.06	2,019,625.97
Depreciation	2,411,511.43	2,408,724.76	2,395,437.51
Total Operating Expenses	<u><u>\$ 10,506,414.26</u></u>	<u><u>\$ 10,662,079.97</u></u>	<u><u>\$ 10,118,885.89</u></u>

**Water System
Comparative Income Statement**

	2012	2011	2010
Sales of Water			
Total Unmetered Sales to General Public	\$ 6,554.93	\$ 5,970.70	\$ 7,170.15
Residential Water Sales	5,476,061.62	5,200,624.06	5,204,674.26
Commercial Water Sales	2,393,156.92	2,307,728.38	2,307,261.41
Industrial Water Sales	484,689.25	515,691.38	520,202.92
Private Fire Protection	153,011.00	151,235.00	147,085.00
Public Fire Protection	1,117,126.11	1,118,682.03	1,116,477.57
Sales to Public Authorities	258,544.35	257,462.39	253,529.34
Sales for Resale	1,786,272.90	1,667,237.49	1,590,857.39
Sales to Irrigation Customers	4,722.06	2,843.37	3,002.54
Total Sales of Water	<u>11,680,139.14</u>	<u>11,227,474.80</u>	<u>11,150,260.58</u>
Other Operating Revenues			
Penalties	148,055.06	156,315.30	140,810.53
Other Water Revenue	105,048.27	106,863.69	106,259.23
Allocated Services	121,362.24	120,537.48	117,097.98
Miscellaneous Service Revenues	296,148.62	263,362.45	227,884.63
Total Other Operating Revenues	<u>670,614.19</u>	<u>647,078.92</u>	<u>592,052.37</u>
Total Operating Revenues	<u>12,350,753.33</u>	<u>11,874,553.72</u>	<u>11,742,312.95</u>
Operating Expenses			
Source of Supply	9,625.00	1,780.00	2,112.00
Power and Pumping Expense	1,148,163.16	1,229,374.68	1,063,906.53
Water Treatment Expense	1,027,228.91	1,005,702.95	982,522.60
Transmission and Distribution Expense	1,786,233.48	1,867,810.60	1,714,494.13
Customer Accounting and Collection Expense	409,188.57	415,086.40	412,309.59
Administrative and General Expense	1,375,189.76	1,579,720.52	1,528,477.56
Depreciation	2,411,511.43	2,408,724.76	2,395,437.51
Taxes	2,339,273.95	2,153,880.06	2,019,625.97
Total Operating Expenses	<u>10,506,414.26</u>	<u>10,662,079.97</u>	<u>10,118,885.89</u>
Utility Operating Income	<u>1,844,339.07</u>	<u>1,212,473.75</u>	<u>1,623,427.06</u>
Other Income			
Interest Earned	41,044.50	44,813.15	81,884.47
Miscellaneous Non-operating Income	5,845.10	10,613.83	5,601.03
Total Other Income	<u>46,889.60</u>	<u>55,426.98</u>	<u>87,485.50</u>
Operating and Other Income	<u>1,891,228.67</u>	<u>1,267,900.73</u>	<u>1,710,912.56</u>
Non-operating Expenses			
Interest on Long-term Debt	974,571.31	1,041,391.10	1,101,154.08
Amortization of Debt Expense	(92,466.68)	(100,201.03)	93,089.27
Total Non-operating Expenses	<u>882,104.63</u>	<u>941,190.07</u>	<u>1,194,243.35</u>
Net Income	<u><u>\$ 1,009,124.04</u></u>	<u><u>\$ 326,710.66</u></u>	<u><u>\$ 516,669.21</u></u>
Rate of Return on Average Investment (based on operating income & expense)	3.79%	2.64%	3.34%

**Water System
Utility Plant in Service
For the year ended December 31, 2012**

	Depr. Rate %	Cost of Plant 1/1/2012	2012 Additions	2012 Retirements	Adjustments Incr/(Decr)	Cost of Plant 12/31/2012
Source of Supply						
Structures and Improvements	2.00	\$ 1,136,362.88				\$ 1,136,362.88
Collect and Impound Reservoirs	1.67	268,710.96				268,710.96
Lake Intakes	1.67	1,525,913.33	41,207.98			1,567,121.31
Supply Mains	1.33	453,081.81				453,081.81
Pumping Plant						
Land	N/A	19,328.45				19,328.45
Structures and Improvements	2.00	3,834,131.43				3,834,131.43
Other Power Prod Equipment	4.00	577,490.71				577,490.71
Electric Pumping Equipment	3.33	3,871,664.41	45,849.69	37,600.00		3,879,914.10
Other Pumping Equipment	4.00	8,646.81				8,646.81
Water Treatment						
Land	N/A	527,047.60				527,047.60
Structures and Improvements	2.00	8,374,423.49	72,462.03			8,446,885.52
Water Treatment Equipment	3.24	1,290,927.95				1,290,927.95
Membrane Filtration Equipment	5.56	13,830,205.12				13,830,205.12
Transmission and Distribution						
Land	N/A	314,896.39				314,896.39
Reservoirs and Standpipes	1.86	6,195,422.40				6,195,422.40
Mains	0.93	47,861,120.98	102,764.80	70,424.06		47,893,461.72
Services	2.09	7,198,625.97	118,019.16	6,970.86		7,309,674.27
Meters	5.00	4,687,372.95	111,977.78	151,787.96		4,647,562.77
Hydrants	1.59	4,580,843.68	146,592.50	21,777.31		4,705,658.87
General Plant						
Furniture and Equipment	5.88	56,866.76	3,494.00	6,160.00		54,200.76
Computer Equipment	6.67-14.29	231,316.40	81,591.71	54,933.78		257,974.33
Transportation Equipment	12.86	993,117.70				993,117.70
Stores Equipment	5.88	1,497.75				1,497.75
Tools and Shop Equipment	5.88	236,577.61	8,274.00	969.95		243,881.66
Lab Equipment	5.88	103,564.50		1,462.08		102,102.42
Work (Power) Equipment	9.00	484,870.12			(13,680.00)	471,190.12
Communication Equipment	9.09	3,016.67		3,016.67		-
Telephone Equipment	20.00	41,180.70				41,180.70
SCADA System Equipment	10.00	558,818.43	2,335.39			561,153.82
Miscellaneous Equipment	5.88	163,156.47				163,156.47
Total		<u>\$ 109,430,200.43</u>	<u>\$ 734,569.04</u>	<u>\$ 355,102.67</u>	<u>(\$ 13,680.00)</u>	<u>\$ 109,795,986.80</u>

**Water System
Accumulated Depreciation
For the year ended December 31, 2012**

	Balance 1/1/2012	2012 Depreciation	Less Cost of Retirements	Add Cash Received	Adjustments Incr./Decr.	Balance 12/31/2012
Source of Supply						
Structures and Improvements	\$ 295,454.38	\$ 22,727.26				\$ 318,181.64
Collect and Impound Reservoirs	153,343.89	4,487.47				157,831.36
Lake Intakes	782,098.89	25,826.84				807,925.73
Supply Mains	78,337.87	6,025.99				84,363.86
Pumping Plant						
Land	-					-
Structures and Improvements	832,323.71	76,682.63				909,006.34
Other Power Prod Equipment	250,607.30	23,099.63				273,706.93
Electric Pumping Equipment	1,324,537.94	129,063.78	37,600.00			1,416,001.72
Other Pumping Equipment	6,131.92	345.87				6,477.79
Water Treatment						
Land	-					-
Structures and Improvements	2,786,116.25	168,213.09				2,954,329.34
Water Treatment Equipment	1,290,927.95					1,290,927.95
Membrane Filtration Equipment	6,846,903.48	768,959.40				7,615,862.88
Transmission and Distribution						
Land	-					-
Reservoirs and Standpipes	2,232,214.63	117,427.86				2,349,642.49
Mains	6,301,981.75	450,023.20	70,424.06			6,681,580.89
Services	2,991,668.36	151,611.74	6,970.86			3,136,309.24
Meters	1,109,573.16	233,373.40	151,787.96	12,229.15		1,203,387.75
Hydrants	1,134,656.57	74,002.32	21,777.31	19,275.19		1,206,156.77
General Plant						
Furniture and Equipment	37,123.91	3,265.39	6,160.00	100.00		34,329.30
Computer Equipment	111,909.42	21,014.02	54,933.78			77,989.66
Transportation Equipment	678,556.76	72,639.04				751,195.80
Stores Equipment	(54,285.79)	0.54				(54,285.25)
Tools and Shop Equipment	190,051.05	14,125.50	969.95			203,206.60
Lab Equipment	58,240.00	6,046.60	1,462.08			62,824.52
Work (Power) Equipment	299,580.41	22,247.62	-		(12,312.00)	309,516.03
Communications Equipment	(5,633.93)	137.11	3,016.67			(8,513.49)
Telephone Equipment	4,118.07	2,335.39				6,453.46
SCADA System Equipment	567,054.57	8,236.14				575,290.71
Miscellaneous Equipment	45,661.91	9,593.60				55,255.51
Total	<u>\$ 30,349,254.43</u>	<u>\$ 2,411,511.43</u>	<u>\$ 355,102.67</u>	<u>\$ 31,604.34</u>	<u>(\$ 12,312.00)</u>	<u>\$ 32,424,955.53</u>

Water System
Water System Revenue Refunding Bonds - Series 2008
Debt Service Schedule
December 31, 2012

Year	Interest Rate %	Principal	Interest		Total
		December 1	June 1	December 1	
2013	5.00%	1,975,000.00	357,825.00	357,825.00	2,690,650.00
2014	4.00%	2,080,000.00	308,450.00	308,450.00	2,696,900.00
2015	4.00%	2,165,000.00	266,850.00	266,850.00	2,698,700.00
2016	4.00% - 5.00%	2,250,000.00	223,550.00	223,550.00	2,697,100.00
2017	5.00%	2,350,000.00	176,875.00	176,875.00	2,703,750.00
2018	5.00%	4,725,000.00	118,125.00	118,125.00	4,961,250.00
Totals		\$15,545,000.00	\$1,451,675.00	\$1,451,675.00	\$18,448,350.00

**Water System
Advance from Municipality
Debt Repayment Schedule
December 31, 2012**

Year	Interest Rate %	<u>Principal</u>	<u>Interest</u>		<u>Total</u>
		<u>April 1</u>	<u>April 1</u>	<u>October 1</u>	
2013	5.070%	34,257.30	6,983.22	6,298.07	47,538.59
2014	5.220%	35,574.89	6,298.07	5,542.11	47,415.07
2015	5.390%	36,892.48	5,542.11	4,712.02	47,146.61
2016	5.590%	38,210.07	4,712.02	3,756.78	46,678.87
2017	5.760%	40,845.24	3,756.78	2,633.53	47,235.55
2018	5.880%	43,480.42	2,633.53	1,383.47	47,497.42
2019	6.000%	46,115.60	1,383.47	—	47,499.07
Totals		<u>\$275,376.00</u>	<u>\$ 31,309.20</u>	<u>\$ 24,325.98</u>	<u>\$331,011.18</u>

**Water System
Total Debt Repayment Schedule
December 31, 2012**

Year	Principal	Interest	Total
2013	2,009,257.30	728,931.29	2,738,188.59
2014	2,115,574.89	628,740.18	2,744,315.07
2015	2,201,892.48	543,954.13	2,745,846.61
2016	2,288,210.07	455,568.80	2,743,778.87
2017	2,390,845.24	360,140.31	2,750,985.55
2018	4,768,480.42	240,267.00	5,008,747.42
2019	46,115.60	1,383.47	47,499.07
Totals	<u>\$ 15,820,376.00</u>	<u>\$ 2,958,985.18</u>	<u>\$ 18,779,361.18</u>

Distribution Division

4401 Green Bay Road
Kenosha WI 53144-1716

Phone (262) 653-4306
Fax (262) 653-4303



“Providing and Protecting Kenosha’s Greatest Natural Resource”

May 2013

Edward St. Peter, General Manager
Kenosha Water Utility
4401 Green Bay Road
Kenosha WI 53144

Subject: 2012 Annual Report for the Water Distribution & Sewer Collection Division

Dear Mr. St. Peter,

The 2012 Annual Report for the Distribution Division is hereby submitted. We completed 373 excavation projects last year, a decrease of twenty when compared to 2011. Our Division cleaned about fifty-five miles of sanitary sewer as part of our regular sewer flushing program.

Water Distribution System

Distribution Division repaired 152 water main breaks in 2012, which was the exact same number as 2011. In addition to water main break repairs we repaired or replaced 40 valves and 31 hydrants. The division also repaired or replaced seventy-seven water services (including nineteen lead service replacements) and installed thirty-one new service connections. All the hydrants north of 60th Street were operated, flushed and maintained, including several private hydrants on a contract basis. In addition, all hydrants on dead end mains, including those south of 60th Street, were operated, flushed and maintained during the 2012 calendar year.

Sanitary Sewer Collection System

In 2012, we cleaned about fifty-five miles of sewer main in our system-wide cleaning program, a drop of 11% when compared to 2011. This can be attributed to employee time lost due to illness and injury as well as equipment not being available due to necessary maintenance and repairs. In particular, the Distribution Division resources were allocated to repairing an unusually high number of main breaks throughout the summer months as well as completing necessary repairs and adjustments of our facilities within City, County and DOT roadway reconstruction projects. In spite of the reduced footage, we are maintaining a 4-5 year cycle for cleaning the entire sanitary sewer system. An additional 5.2 miles of sewer main was cleaned for the bi-monthly Preventive Maintenance (PM) program and 3.8 miles of sewer was televised in 2012. Seventy-three sewer repairs were completed in 2012 (thirty-nine fewer than in 2011), including forty-one sewer laterals, twenty-two manholes and ten sanitary sewer main repairs. All manhole repairs included the installation of an internal/external manhole seal to help reduce Inflow & Infiltration.

Completing our work would be impossible without help from other KWU divisions. We’d like to thank the Maintenance Division for keeping our equipment and vehicles in working order, Engineering Services for technical support and Business Services for communicating and coordinating with our customers. We would also like to thank the City of Kenosha Streets Division for supporting our operation by salting roads and clearing storm sewer inlets where main breaks occur. Finally, I’d like to acknowledge the outstanding Distribution Division employees who are dedicated to providing the best possible customer service.

Thank you, Ed, and the Board of Water Commissioners for providing us with the best equipment to make our jobs safe and this division efficient. The Distribution Division is dedicated to upholding Kenosha Water Utility’s high standards of excellence.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Czarnecki".

Curtis A. Czarnecki, P.E.
Director of Distribution & Sewer Collection

Water Distribution Pipe System - 2012

<u>Size</u>	<u>Material</u>	<u>Footage</u>
48"	Cast/Ductile Iron Pipe	370
36"	Cast/Ductile Iron Pipe	12,550
30"	Cast/Ductile Iron Pipe	13,253
24"	Cast/Ductile Iron Pipe	60,803
24"	Concrete Pipe	7,892
24"	Plastic Pipe	4,636
20"	Cast/Ductile Iron Pipe	8,327
18"	Cast/Ductile Iron Pipe	2,576
16"	Cast/Ductile Iron Pipe	173,920
16"	Plastic Pipe	25,654
14"	Cast/Ductile Iron Pipe	8,311
12"	Cast/Ductile Iron Pipe	225,782
12"	Plastic Pipe	43,675
10"	Cast/Ductile Iron Pipe	16,265
8"	Cast/Ductile Iron Pipe	383,574
8"	Plastic Pipe	145,647
6"	Cast/Ductile Iron Pipe	710,500
6"	Plastic Pipe	5,946
4"	Cast/Ductile Iron Pipe	30,197
4"	Plastic Pipe	10
3"	Copper Pipe	150
2"	Copper Pipe	2,517
2"	Plastic Pipe	164
1.5"	Copper Pipe	272
1"	Copper Pipe	70
Total Feet of Pipe		1,883,061
Total Miles of Pipe		356.64

Water Services Added to System - 2012

<u>Number</u>	<u>Size</u>	<u>Material</u>	<u>Average Unit Cost</u>	<u>Total Cost</u>
38	1"	Copper Connections	\$ 2,625.68	\$ 99,775.69
1	4"	PVC Connections	1,813.22	1,813.22
<u>9</u>	6"	PVC Connections	1,825.58	<u>16,430.25</u>
48		Total		\$ 118,019.16

Fire Hydrants Added to System - 2012

<u>Number</u>	<u>Type</u>	<u>Average Unit Cost</u>	<u>Total Cost</u>
25	Steamer	\$ 5,863.70	\$ 146,592.50

2012 Water Main Installation Costs

Project	Size/ Type	Installer	Description	Footage	Total Costs	Cost per Foot
Installed by Developers						
442	8" PVC	Powers Lake Construction Co., Inc.	CVS/Kenosha Gateway	<u>1,260.0</u>	<u>\$ 102,764.80</u>	81.56
			Total	<u><u>1,260.0</u></u>	<u><u>\$ 102,764.80</u></u>	

**Distribution Division - Water
Operating & Maintenance Report - 2012**

Maintenance Completed

System	Maintenance Type	Quantity
Water Main Breaks	Circumferential	49
	Blow Out	59
	Joint Leaks	2
	Longitudinal	36
	Old Sleeve	3
	Other	3
	Total Main Break Repairs	
Valves	Reset/Replace Box (only)	1
	Replaced	10
	Repaired	28
	New Installation	-
	Removed/VBO	1
Total Valve Repairs		40
Water Services	Reset/Replace Box (only)	17
	Replaced (Lead Svcs: 19)	35
	Repaired	21
	Flow Test	-
	Shut at Main	4
Total Water Service Repairs		77
Hydrants	Replaced	22
	Repaired	3
	Relocated	1
	New Installation	5
Total Hydrant Repairs		31
New Connections & Taps	1"	24
	1 1/2"	-
	2"	1
	4"	1
	6"	5
	8"	-
	12"	-
Total New Connections Installed		31

Meter Shop Request for Assistance: 138
Valves Operated: 539

Customer Complaints

(During Normal Work Hours)

Complaint	Quantity
Main Breaks	55
Hydrant Hit/Damaged	7
Hydrant Leaking	11
Service Repairs	7
Signs/Barricades Needed	-
Curb/Valve Box Repair	21
Water Taste/odor/color	11
Low Pressure	-
No Water	4
Service Turn-On	-
Service Turn Off	1
Temporary Road Patch	8
Utility Locate	-
Miscellaneous	14
Total	139

Customer Complaints

(After Normal Work Hours)

Complaint	Quantity
Main Breaks	88
Hydrant Hit/Damaged	11
Hydrant Leaking	4
Service Repairs	16
Signs/Barricades Needed	2
Curb box/Valve Box	1
Water Taste/odor/color	2
Low Pressure	9
No Water	4
Service Turn-On	3
Service Turn Off	16
Temporary Road Patch	1
Utility Locate	27
Miscellaneous	5
Total	189

Total Customer Complaints	328
----------------------------------	------------

Wastewater Treatment Plant

7834 3rd Avenue
Kenosha WI 53143

Phone (262) 653-4335
Fax (262) 653-4340



“Providing and Protecting Kenosha’s Greatest Natural Resource”

May 2013

Mr. Edward St. Peter, General Manager
Kenosha Water Utility
4401 Green Bay Road
Kenosha, WI 53144

Subject: 2012 Annual Report - Wastewater Treatment and Water Production Facilities

Dear Mr. St. Peter,

I respectfully submit the 2012 Annual Report for the Kenosha Water Utility Wastewater Treatment and Water Production facilities.

During 2012, a number of modifications and improvements were made to the facilities. These improvements generated more efficient treatment and operating cost savings. The following information provides an overview of the projects that were undertaken at the Wastewater Treatment Plant as part of our Capital Improvement Program.

- A new Supervisory Control and Data Acquisition (SCADA) system was installed. The new system will allow operators to monitor and control all of the facility’s processes and equipment. The upgrade included the addition of three touch screens which provide access to current process data throughout the facility. The system was built with future improvements in mind and can be expanded easily. I would like to thank John Andersen, Director of GIS, for his management of the design and implementation of the new system.
- The bar screens were rebuilt by Process Equipment Repair Services. This equipment was in dire need of repair or replacement. Costs for a new system exceeded \$2,000,000. The existing system was rebuilt for \$100,000. The rebuilt system works well and has significantly reduced the amount of debris entering into the treatment system.
- Discussions began with SH+E to build an Energy-Optimized Sludge Treatment System at the Kenosha Water Utility Wastewater Treatment Plant. The project will improve the quality of the final biosolids product, result in a significant reduction of biosolids and generate electricity to offset peak energy pricing during high demand periods. The project offers a significant reduction in operational costs.
- The Wastewater Treatment Plant embarked on an aggressive digester cleaning program. Digester two was completed in 2012, with cleaning planned for digesters three and six in the winter of 2013.

Improvements made at the Water Production facility were as follows:

- The roof over the offices in the sand filter plant were replaced. The old roof was leaking in several places and in need of replacement.
- A new variable frequency drive unit was installed in the low lift pump station. The new unit replaces an aging drive that had broken and was beyond its useful life.
- Repairs were made to the bearings and shafts in the flocculator system in the sand filter plant. All of the work was done by utility mechanics and staff. Plans are being made to make more improvements next year.

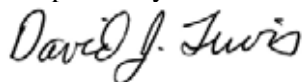
We also opened a new maintenance bay at the Water Service Centre. This operation promotes more efficient access to vehicles and equipment in need of repair at this location. It also eliminates the need to move vehicles between the main office and the Wastewater Treatment Plant.

I would like to thank the staff at the Water Production Plant for their support throughout the year. Roger Field has done a great job transitioning to the Director of Water Production. He completed a tracer study in the plant's treated water reservoir and worked diligently toward resolving warranty issues with our micro-membrane filtration plant.

I would like to thank the entire staff at the Wastewater Treatment Plant for their support throughout the year. Melissa Arnot has improved the overall effectiveness of the facility by coordinating the operations and maintenance of equipment. Katie Karow became the Laboratory Supervisor in April of 2012 and has implemented many positive changes to the laboratory and treatment processes. I would like to thank the plant operators and laboratory staff at the Wastewater Treatment Plant for their commitment to improving plant processes. I also thank the maintenance staff for their commitment and innovation in resolving maintenance issues at the Wastewater Treatment Plant and the Water Production Plant.

As always, I would like to thank Ed St. Peter and the Board of Water Commissioners for their support throughout 2012. None of the projects that were undertaken would be possible without their input and approval.

Respectfully submitted,



David Lewis
Director of Operations

Wastewater Treatment Plant

7834 3rd Avenue
Kenosha WI 53143

Phone (262) 653-4335

Fax (262) 653-4340



"Providing and Protecting Kenosha's Greatest Natural Resource"

May 2013

Mr. Edward St. Peter, General Manager
Kenosha Water Utility
4401 Green Bay Road
Kenosha, WI 53144

Subject: 2012 Annual Report – Wastewater Treatment Division

Dear Mr. St. Peter,

I respectfully submit the 2012 annual report for the Kenosha Water Utility Wastewater Treatment Plant. This past year, the wastewater treatment plant treated 6.5 billion gallons of sewage. This total is down about 2 billion gallons from last year due to 2012 being a very dry year. The average daily flow for the plant was 17.9 million gallons per day (MGD) down from 22.9 MGD last year. The final effluent biological oxygen demand (BOD) and total suspended solids (TSS) were well within the permitted discharge limits. The plant efficiency for removal was 96% for both BOD and TSS.

Working at a wastewater treatment plant is not one of the most glamorous jobs of the water utility, but I would say that it is one of the most interesting. The amount of equipment that needs to be maintained and repaired can be overwhelming. The staff is responsible for over forty-five pumps at the wastewater treatment plant along with twenty-nine pumps at the thirteen lift stations, and six pumps at the equalization basin. This is in addition to the twenty-nine tanks and other various major equipment items that need to be maintained. The laboratory staff is responsible for monitoring the influent, primary and effluent, haulers, industries, and metering sites. On an average, they run over sixty-five analyses per day. Katie Karow joined our team as the Laboratory Supervisor in 2012 and she has done an excellent job managing our laboratory operations and plant processes in addition to our Household Hazardous Waste program.

I would like to thank the wastewater treatment plant staff for all of their hard work and dedication to the plant and to the Water Utility as a whole. Especially in times of an emergency, the mechanics, electricians, operators and laboratory staff do an outstanding job of maintaining the operations and treatment and complying with DNR effluent limits. This is definitely a dirty job with unpleasant working conditions at times, but the employees do whatever it takes to maintain the process no matter what hour of the day it is.

I would like to thank Ed St. Peter and the Board of Water Commissioners for their continued support and guidance. The Kenosha Water Utility is a great place to work and especially the Wastewater Treatment Plant which has many potential projects and areas for technological advancement in the near future.

Thank you for the opportunity to be a part of this team.

Sincerely,

A handwritten signature in cursive script that reads "Melissa Arnot".

Melissa Arnot, P.E.

Director of Wastewater Treatment

Treatment Data - 5 Year Comparison

<u>YEAR</u>	<u>MGD</u>	<u>Influent mg/L</u>	<u>Primary Effluent mg/L</u>	<u>Primary Efficiency %</u>	<u>Final Effluent mg/L</u>	<u>Overall Efficiency %</u>
Suspended Solids						
2012	17.885	188	59	69	6.7	96
2011	22.872	161	62	61	7.9	95
2010	20.837	172	62	64	7.5	96
2009	24.612	150	56	63	9.5	94
2008	24.249	155	56	64	10.9	93
Five-Day BOD						
2012	17.885	190	127	33	8.5	96
2011	22.872	171	108	37	11.7	93
2010	20.837	188	124	34	9	95
2009	24.612	162	108	33	13	92
2008	24.249	162	111	31	14	91
Phosphorus						
2012	17.885	3.08	–	–	0.54	82
2011	22.872	2.85	–	–	0.54	81
2010	20.837	3.1	–	–	0.57	82
2009	24.612	2.86	–	–	0.45	84
2008	24.249	2.93	–	–	0.53	82

Summary

	2011	2012
Total wastewater pumped and treated	8,340,744,000	6,547,802,000
Total sludge to digesters - gallons	39,275,622	37,750,377
Total dry solids to digesters - pounds	11,914,551	10,472,482
Total dry volatile solids to digesters - pounds	8,683,134	7,935,629

Digester Data

Total gallons digested sludge removed	25,627,276	26,970,710
Percent dry solids	2.71	2.62
Total pounds dry solids removed	5,734,241	5,797,216
Percent volatile matter	49.3	53.3
Total dry volatile solids removed	2,748,777	3,055,386
Volatile solids destroyed, percent	68.3	61.5
Total gallons removed as supernatant	17,842,800	13,324,800
Percent supernatant solids	0.21	0.23
Total pounds supernatant solids removed	312,500	235,392
Percent supernatant volatile matter	49.6	53.1
Total pounds volatile solids, supernatant	155,000	124,014

Treatment Plant Data and Chemical Usage

	<u>2011</u>	<u>2012</u>
<u>Chemical Data</u>		
<u>Chlorine</u>		
Total pounds	94,636	107,460
Average pounds per day	259	294
Average residual, µg/L	< 100 µg/L	< 100 µg/L
<u>Sulfur Dioxide</u>		
Total pounds	66,820	62,435
Average pounds per day	183	171
<u>Ferric Chloride, Phosphorus</u>		
Total gallons	177,916	197,601
Average gallons per day	487	541
Average pounds of Fe per day	643	714
<u>Polymer *</u>		
Tons	71	84
Pounds per pound of dry solids	0.02	0.03
<u>Lime *</u>		
Tons	202	0
Pounds per pound of dry solids	0.07	0.00
<u>Ferric Chloride, Press *</u>		
Tons	16.0	0.0
Pounds per pound of dry solids	0.010	0.000

* The centrifuge replaced the filter presses after January 2011. The centrifuge uses polymer; the use of lime and ferric chloride was discontinued after January.

Aeration

Settleable Solids - mg/L	222	240
Mixed Liquor Suspended Solids - mg/L	3,011	2,921
Dissolved Oxygen - mg/L	2.6	2.7
BOD lbs. applied per day	18,836	18,242

Thickener

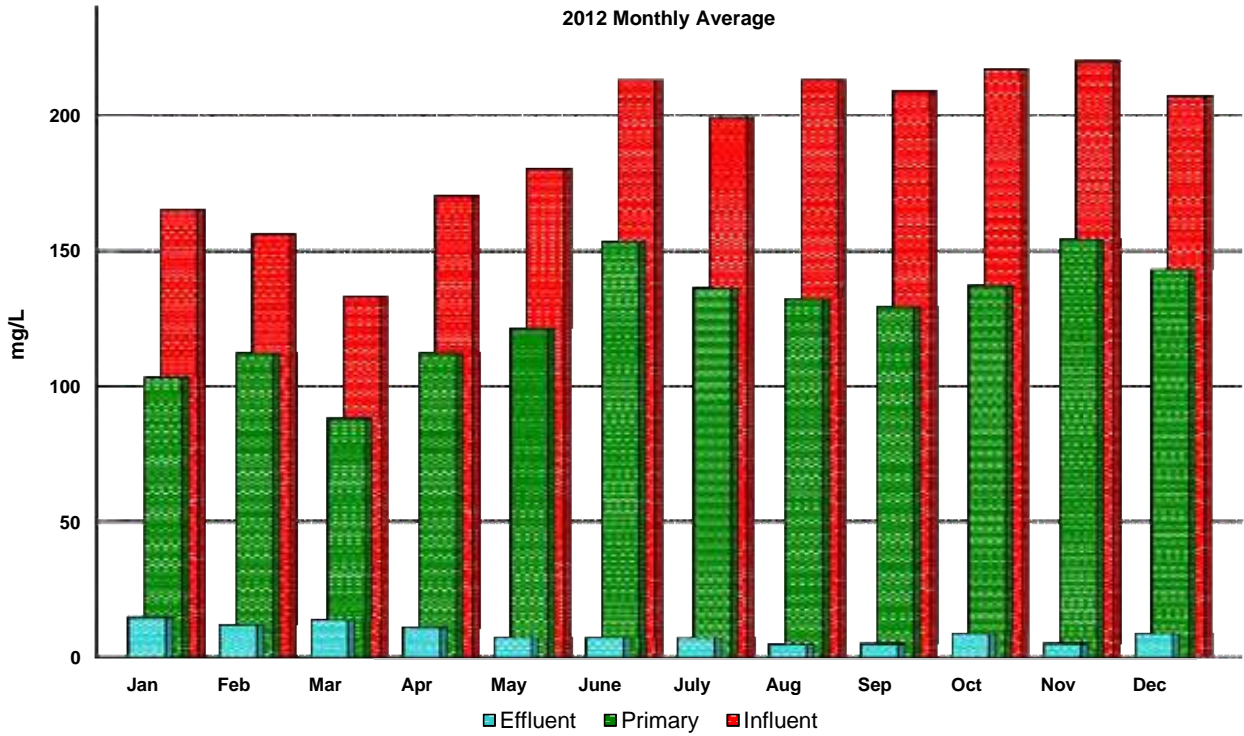
Waste Activated Sludge to Thickener, gallons/day	146,962	149,039
Waste Activated Sludge - % solids	1.11	0.98
Waste Activated Sludge - lbs/day	14,724	10,260
Thickened Sludge - % solids	4.2	3.9
Thickened Sludge - % volatile	72	72
Thickener Effluent - Suspended Solids - mg/L	40	418
Thickened Sludge - lbs dry solids/day	14,310	10,043
Thickened Sludge - gallons/day	42,334	30,028

mg/L - milligrams per Liter

µg/L - micrograms per Liter

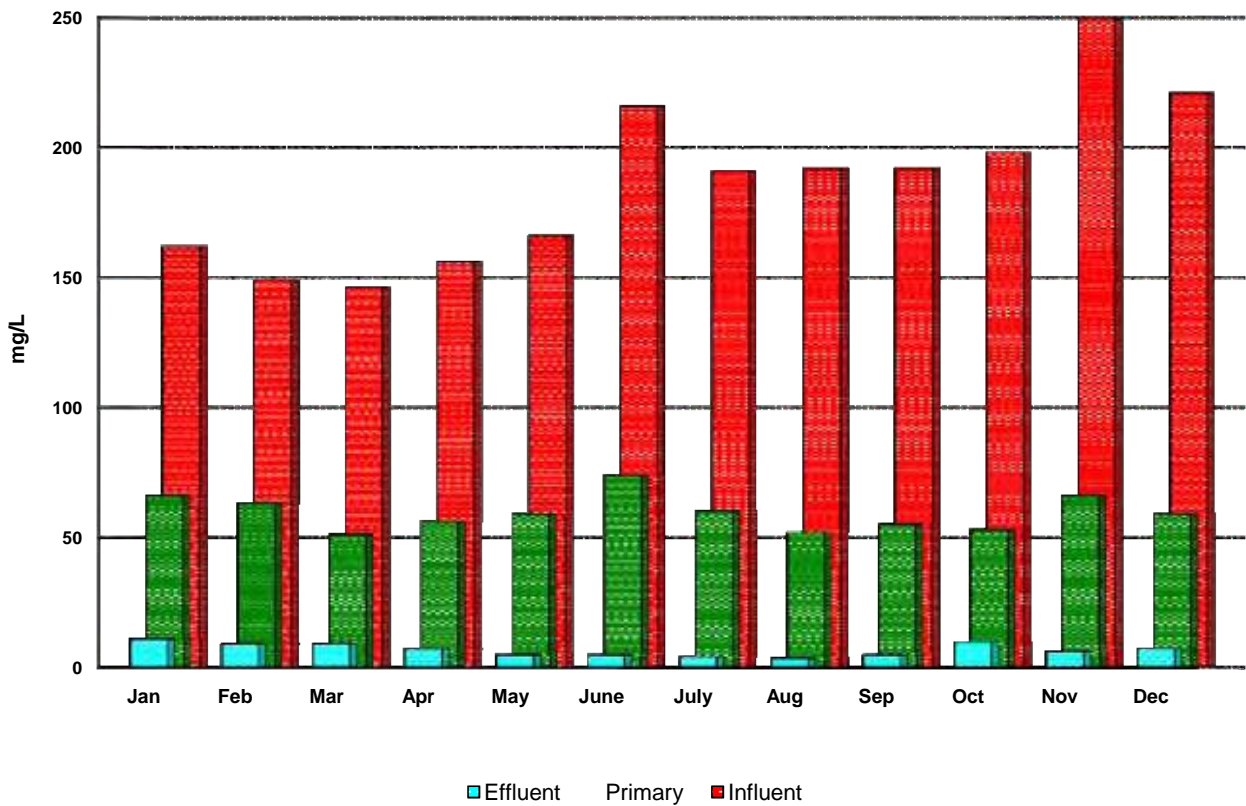
BOD REMOVAL

2012 Monthly Average



TSS REMOVAL

2012 Monthly Average



Wastewater Flow

Annual precipitation and average daily flow for the past five years

	<u>Precipitation, Inches</u>	<u>Average MGD</u>
2012	25.70	17.885
2011	37.73	22.872
2010	33.68	20.837
2009	41.50	24.612
2008	44.40	24.249

Supernatant

Gallons per day	79,893
Percent Solids	0.23
Pounds supernatant solids per day	1,533
Percent volatile	53.1

Sludge to Centrifuge

Gallons per day	184,731
Percent solids	2.62
Pounds per day	40,365
Percent volatile	53.3

Sludge off Centrifuge

Total tons	9,249
Percent solids	27.9
Centrate TSS, mg/l	169.0
Centrate pH	7.7

Solids Disposal

Tons of sludge to landfill, dry tons	2,580
Tons of grit to landfill	1,159

Annual Energy Usage

Electricity	Total On and Off Peak	kWh	15,389
	Total Demand	kW	17,044
		Total cost	\$ 696,888
Natural Gas		therms	29,274
		Total cost	\$ 18,530
Methane gas produced by digesters		therms	363,876
Value of methane gas		Total	\$ 230,328

**Sewerage System
Plant Operating Data - 2012**

Month	Precip. Inches	Total Flow Raw Sewage MG	Average Daily Flow MGD	Maximum Daily Flow MGD	Day of Month	Power Cost
January	1.21	624.918	20.159	31.642	23	\$ 54,712
February	1.07	578.115	19.935	38.968	39	53,192
March	2.62	798.865	25.770	31.335	24	52,274
April	2.86	601.566	20.052	30.051	15	57,230
May	2.86	631.449	20.369	32.496	7	58,494
June	0.22	479.827	15.994	18.714	1	65,389
July	3.64	497.501	16.048	25.435	19	60,952
August	2.13	495.268	15.976	19.085	10	60,133
September	2.68	461.558	15.385	20.433	5	66,896
October	2.75	477.432	15.401	21.252	23	51,765
November	0.40	426.411	14.214	15.483	12	59,399
December	3.26	474.892	15.319	34.931	20	56,452
Total	25.70	6,547.802				\$ 696,888
Average	2.14	545.650	17.885	26.652		\$ 58,074

Monthly Averages

Month	BOD		TSS (mg/L)		Phosphorus (mg/L)		Total lbs. Dry Solids from Digester
	Influent	Effluent	Influent	Effluent	Influent	Effluent	
January	165	14.5	162	10.8	2.71	0.50	354,540
February	156	11.7	149	8.8	2.88	0.56	423,354
March	133	13.5	146	9.0	2.06	0.41	547,013
April	170	10.6	156	6.9	2.31	0.36	462,717
May	180	6.8	166	4.7	2.43	0.37	470,165
June	213	6.8	216	4.7	3.38	0.59	401,968
July	199	6.7	191	4.0	3.62	0.67	615,547
August	213	4.5	192	3.5	3.46	0.77	505,445
September	209	4.8	192	4.7	3.73	0.77	338,628
October	217	8.3	198	9.7	3.44	0.67	397,336
November	220	4.9	269	6.1	3.36	0.46	536,837
December	207	8.4	221	7.1	3.60	0.41	743,666
Average	190	8.5	188	6.7	3.08	0.55	483,101

2012 Sewer Main Installation Costs

Project	Size/ Type	Installer	Description	Footage	Total Costs	Cost per Foot
Installed by Developers						
742	8" PVC	Powers Lake Construction Co., Inc.	CVS/Kenosha Gateway	<u>890.0</u>	<u>\$ 74,608.29</u>	83.83
			Total	<u><u>890.0</u></u>	<u><u>\$ 74,608.29</u></u>	

**Distribution Division - Sanitary Sewer
Operating & Maintenance Report - 2012**

Maintenance Completed

System	Maintenance Type	Quantity
Sewer Main	Collapse	5
	Broken Pipe	3
	Joint Leaks	–
	Remove Flusher Nozzle	–
	Other	2
Total Sewer Main Repairs		10
Sewer Lateral	Collapse	15
	Broken Pipe	1
	Joint Leaks	6
	Broken at Wye	11
	Remove Parkway Trap	4
	Contractor Damage	-
	Other	4
Total Sewer Lateral Repairs		41
Manholes	Repaired	21
	Replace	–
	Remove/Abandon	1
Total Manhole Repairs		22
Total Sanitary Sewer Repairs		73

Customer Complaints

(During Normal Work Hours)

Complaint	Quantity
Utility Locate	–
Sewer back-up	82
Sink Hole	2
Sewer Odor	8
Storm Sewer Back-up	2
TV Lateral	10
Manhole Problem	1
Miscellaneous	2
Total	107

**Customer Complaints
(After Normal Work Hours)**

Complaint	Quantity
Utility Locate	27
Sewer back-up	57
Sink Hole	-
Sewer Odor	1
Storm Sewer Back-up	2
TV Lateral	1
Manhole Problem	1
Miscellaneous	-
Total	89

Total Complaints	196
-------------------------	------------

**Distribution Division
Summary of Sewer Cleaning and Televising - 2012**

Month	Sewer Cleaning	PM List	Surcharge Cleaning	Televising *	Grand Total
January	26,364	-	520	1,672	28,556
February	32,530	7,966	260	1,672	42,428
March	27,286	-	500	1,672	29,458
April	15,712	-	-	1,672	17,384
May	51,397	-	-	1,672	53,069
June	28,433	7,939	-	1,672	38,044
July	13,626	-	-	1,672	15,298
August	18,459	-	-	1,672	20,131
September	10,748	8,089	-	1,672	20,509
October	18,827	-	500	1,672	20,999
November	11,895	-	465	1,672	14,032
December	9,773	3,465	-	1,672	14,910
TOTAL (ft.)	265,050	27,459	2,245	20,064	314,818
TOTAL (mi.)	50.20	5.20	0.43	3.80	59.62

* Averaged televising total over the 12 month period

Prior Year Totals (ft.)

2011	325,955	28,965	2,625	19,678	377,223
2010	392,879	30,026	2,850	32,203	457,958
2009	544,614	32,893	2,205	30,061	609,773
2008	323,303	34,737	1,950	9,674	369,664
2007	483,926	63,070	1,006	9,674	557,676

Sewage Collection Pipe System - 2012

<u>Size</u>	<u>Material</u>	<u>Footage</u>
99"	Concrete	3,318
96"	Concrete	75
84"	Concrete	9,774
78"	Concrete	4,899
72"	Concrete	4,242
66"	Concrete, Steel	3,151
60"	Concrete, Steel	24,556
54"	Concrete, Steel	3,465
48"	Concrete, Steel, Brick	13,309
42"	Concrete, Steel, Brick	20,527
36"	Concrete, Clay, Steel	39,054
33"	Concrete, Clay	699
30"	Concrete, Clay, Steel	48,329
27"	Concrete, Clay, Steel	9,567
24"	Clay, Concrete, Plastic, Steel	97,076
22"	Clay, Plastic, Steel	5,708
21"	Clay, Plastic	42,108
20"	Clay, Plastic, Steel	19,068
18"	Clay, Plastic, Steel	121,569
16"	Clay, Plastic	910
15"	Clay, Plastic, Steel	158,959
14"	Clay, Plastic	1,156
12"	Clay, Plastic, Steel	261,677
10"	Clay, Plastic, Steel	150,058
8"	Clay, Plastic, Steel	705,746
6"	Clay, Plastic	8,241
Total Feet of Pipe		1,757,241
Total Miles of Pipe		332.81

Sewerage System Income Statement – 2012

Sewerage Service Revenues		
Residential Customers	\$ 4,473,989.96	
Commercial Customers	2,276,772.95	
Industrial Customers	1,026,084.18	
Public Customers	224,496.30	
Waste haulers	226,102.34	
Wholesale Customers	2,337,383.64	
Industrial Monitoring	90,749.43	
Total Sewerage Service Revenues		10,655,578.80
Other Operating Revenues		
Engineering Services	1,105,601.56	
Other Income	81,381.31	
Penalties	133,272.71	
Total Other Operating Revenues		1,320,255.58
Total Operating Revenues		11,975,834.38
Operating Expenses		
Wastewater Treatment Operation and Maintenance	2,754,292.17	
Collection System Operation and Maintenance	1,034,661.61	
Laboratory Operations	257,457.53	
Industrial Waste Monitoring	68,700.63	
Engineering Services	988,817.84	
Customer Accounting and Collection Expense	369,870.39	
Administrative and General Expense	2,001,237.12	
Depreciation	2,535,038.24	
Taxes	53,695.05	
Total Operating Expenses		10,063,770.58
Utility Operating Income		1,912,063.80
Other Income		
Interest Income	194,357.70	
Miscellaneous Income	16,611.37	
Total Other Income		210,969.07
Non-operating Expenses		
Interest on Long-term Debt		82,278.07
Net Income before Capital Contributions		2,040,754.80
Capital Contributions	182,681.00	
Net Income		\$ 2,223,435.80

**Sewerage System
Statement of Net Position
December 31, 2012**

Assets		
Utility Plant		
Utility Plant in Service	\$ 132,226,996.44	
Work in Progress - Sewer Plant	1,443,253.33	
Work in Progress - Sewerage System	231,294.16	
Accumulated Depreciation	<u>(57,926,134.02)</u>	
Net Plant in Service		75,975,409.91
Other Property		
Other Utility Plant & Equipment for Future Use	1,483,907.38	
Accumulated Depreciation	<u>(132,115.68)</u>	
Net Other Property		<u>1,351,791.70</u>
Total Net Utility Plant		77,327,201.61
Current Assets		
Cash and Cash Equivalents	6,371,709.98	
Restricted cash equivalents	-	
Restricted cash - Storm Water Utility Collections	315,030.18	
Restricted Investments	2,960,900.00	
Customer Accounts Receivable	1,158,536.96	
Receivable from Municipality	654,905.35	
Unbilled Revenues	986,111.65	
Other Accounts Receivable	638,210.50	
Materials and Supplies	50,938.93	
Accrued Interest Receivable	810.17	
Other Current Assets	<u>5,363.39</u>	
Total Current and Accrued Assets		13,142,517.11
Noncurrent Assets		
Advance to Water Unit		5,000,000.00
Other Assets		
Assessments Receivable		40,840.00
Deferred Charges		<u>2,023,726.85</u>
Total Other Assets		<u>2,064,566.85</u>
Total Assets		<u>97,534,285.57</u>
Liabilities		
Current Liabilities		
Current Portion of Long Term Obligations	461,211.62	
Accounts Payable	301,687.13	
Accrued Interest Payable	10,062.59	
Current Portion of Advance from Municipality	34,837.70	
Payable to Municipality	326,295.73	
Due to City of Kenosha - Storm Water Collections	315,030.18	
Deferred Credits	<u>25,088.68</u>	
Total Current and Accrued Liabilities		1,474,213.63
Non-current Liabilities		
Long-term Debt		
Advances from Municipality	245,203.80	
Clean Water Fund Loans	<u>671,122.60</u>	
Total Long-term Debt		916,326.40
Accrued Compensated Absences		188,167.75
Worker's Compensation Accrued Liability		53,565.00
Other Postemployment Benefits		<u>562,075.00</u>
Total Non-current Liabilities		1,720,134.15
Total Liabilities		<u>3,194,347.78</u>
Net Position		
Invested in Capital Assets, net of related debt	76,194,867.39	
Restricted for Debt Service	2,954,388.17	
Unrestricted	<u>15,190,682.23</u>	
Total Net Position		<u>\$ 94,339,937.79</u>

**Sewerage System
Comparative Operating and Maintenance Expenses**

	<u>2012</u>	<u>2011</u>	<u>2010</u>
Operating Expenses			
Supervision and Labor	\$ 396,167.73	\$ 353,657.84	\$ 435,479.27
Power for Pumping and Aeration	715,418.01	760,072.35	660,103.25
Disinfection Chemicals	53,247.00	62,840.00	59,725.00
Sludge Conditioning Chemicals	494,512.49	402,624.72	731,081.85
Other Chemicals for Sewage Treatment	10,548.62	4,572.48	10,519.81
Laboratory Operations	257,457.53	270,447.24	264,141.78
Industrial Waste Monitoring	68,700.63	63,572.50	71,095.31
Landfill Expense	431,862.16	417,378.81	452,221.80
Transportation Expense	68,404.55	82,030.48	70,334.19
	<u>2,496,318.72</u>	<u>2,417,196.42</u>	<u>2,754,702.26</u>
Maintenance Expenses			
Collection System Operation and Maintenance	1,034,661.61	1,130,339.08	1,055,439.85
Wastewater Treatment Maintenance	584,131.61	617,441.31	598,850.77
	<u>1,618,793.22</u>	<u>1,747,780.39</u>	<u>1,654,290.62</u>
Customer Account Expenses			
Customer Accounting and Collection	311,467.87	309,558.52	311,283.22
Meter Reading Expense	58,402.52	67,637.75	62,199.70
	<u>369,870.39</u>	<u>377,196.27</u>	<u>373,482.92</u>
Administrative and General Expenses			
Administrative and General Salaries	223,306.37	259,252.40	219,660.46
Engineering Services	988,817.84	1,048,633.02	1,055,420.22
Office Supplies and Expense	45,928.86	41,706.19	48,386.72
Outside Services Employed	323,053.21	344,222.06	272,888.95
Insurance Expense	104,765.66	310,228.53	129,946.22
Employee Benefits and Pensions	941,054.53	1,200,841.21	1,112,483.74
Meter Operations Expense	357,028.49	351,116.91	331,281.29
Depreciation	2,535,038.24	2,431,758.81	2,410,162.34
Miscellaneous Expense	6,100.00	6,100.00	6,100.00
	<u>5,525,093.20</u>	<u>5,993,859.13</u>	<u>5,586,329.94</u>
Total Operating Expenses	<u>\$ 10,010,075.53</u>	<u>\$ 10,536,032.21</u>	<u>\$ 10,368,805.74</u>

Sewerage System Comparative Income Statement

	<u>2012</u>	<u>2011</u>	<u>2010</u>
Sewerage Service Revenue			
Residential Customers	\$ 4,473,989.96	\$ 4,442,397.68	\$ 4,583,482.63
Commercial Customers	2,276,772.95	2,251,874.04	2,290,625.11
Industrial Customers	1,026,084.18	1,002,689.14	985,370.60
Public Customers	224,496.30	235,535.87	222,510.73
Wastehaulers	226,102.34	184,137.09	197,691.88
Wholesale Customers	2,337,383.64	2,400,052.77	2,165,737.48
Industrial Monitoring	90,749.43	98,075.15	31,601.60
Total Sewerage Service Revenues	10,655,578.80	10,614,761.74	10,477,020.03
Other Operating Revenues			
Engineering Services	1,105,601.56	1,112,130.25	1,141,662.16
Other Income	81,381.31	72,746.40	108,370.12
Penalties	133,272.71	144,262.19	135,497.19
	1,320,255.58	1,329,138.84	1,385,529.47
Total Operating Revenues	11,975,834.38	11,943,900.58	11,862,549.50
Operating Expenses			
Wastewater Treatment Operation and Maintenance	2,754,292.17	2,700,617.99	3,018,315.94
Collection System Operation and Maintenance	1,034,661.61	1,130,339.08	1,055,439.85
Laboratory Operations	257,457.53	270,447.24	264,141.78
Industrial Waste Monitoring	68,700.63	63,572.50	71,095.31
Engineering Services	988,817.84	1,048,633.02	1,055,420.22
Customer Accounting/Meter Reading Expense	369,870.39	377,196.27	373,482.92
Administrative and General Expense	2,001,237.12	2,513,467.30	2,120,747.38
Depreciation	2,535,038.24	2,431,758.81	2,410,162.34
Taxes	53,695.05	49,545.94	38,417.03
Total Operating Expenses	10,063,770.58	10,585,578.15	10,407,222.77
Net Operating Income	1,912,063.80	1,358,322.43	1,455,326.73
Non-operating Revenue			
Interest Income	194,357.70	192,243.67	239,117.27
Miscellaneous Income	16,611.37	13,315.83	17,398.03
Total Non-operating Revenue	210,969.07	205,559.50	256,515.30
Operating Income and Other Revenue	2,123,032.87	1,563,881.93	1,711,842.03
Non-operating Expenses			
Interest on Long-term Debt	82,278.07	168,464.44	304,768.01
Amortization of Debt Expense	-	-	17,301.73
Total Non-operating Expenses	82,278.07	168,464.44	322,069.74
Net Income	\$ 2,040,754.80	\$ 1,395,417.49	\$ 1,389,772.29
Rate of Return on Average Investment (based on WWTP net operating income)	5.15%	3.48%	3.73%
Rate of Return on Average Investment (after debt service payment)	4.93%	3.05%	2.95%

**Sewerage System
Utility Plant in Service
For the year ended December 31, 2012**

	Depr. Rate %	Cost of Plant 1/1/2012	2012 Additions	2012 Retirements	Adjustments Incr/(Decr)	Cost of Plant 12/31/2012
Collection System						
Land	N/A	\$ 124,713.31				\$ 124,713.31
Structures and Improvements	2.94	-				-
Service Connections	2.00	1,904,640.65				1,904,640.65
Collecting Mains	1.00	45,099,168.11	74,608.29			45,173,776.40
Interceptor Mains	1.00	27,142,083.25				27,142,083.25
Force Mains	1.00	1,285,208.01				1,285,208.01
Collection Equipment	4.00	1,376,423.72	56,117.51	15,366.51		1,417,174.72
Collection Pumping System						
Land	N/A	129,783.09				129,783.09
Structures and Improvements	2.50	5,930,997.79				5,930,997.79
Receiving Wells	2.50	5,523,470.40				5,523,470.40
Electric Pumping Equipment	5.33	8,783,042.95				8,783,042.95
Other Power Pumping Equip.	4.00	225,517.45				225,517.45
Miscellaneous Pumping Equip.	4.00	37,656.16				37,656.16
Treatment and Disposal						
Land	N/A	331,080.05				331,080.05
Structures and Improvements	2.50	8,341,939.83		12,734.95		8,329,204.88
Preliminary Equipment	3.80	449,986.91	91,482.90			541,469.81
Primary Treatment Equipment	2.97	4,102,116.84	44,906.95	15,962.32		4,131,061.47
Secondary Treatment Equip.	3.53	6,527,748.80				6,527,748.80
Advanced Treatment Equip.	2.86	208,830.61				208,830.61
Chlorination Equipment	4.41	1,247,887.00		4,745.00		1,243,142.00
Sludge Treatment & Disposal	4.17	7,127,427.26	56,219.00	1,714,684.53		5,468,961.73
Flow Metering and Monitoring	4.44	498,059.05	6,199.40	1,522.06		502,736.39
Outfall Sewer	2.31	1,111,107.93				1,111,107.93
Engineering Equipment						
Furniture and Equipment	5.88	45,040.19		4,019.04		41,021.15
Computer Equipment	6.67-14.29	133,190.01	1,195.00	8,257.57		126,127.44
Transportation Equipment	14.28	321,339.77				321,339.77
Engineering Equipment	5.88	23,242.32				23,242.32
Communication Equipment	9.09	(1,610.32)				(1,610.32)
Telephone Equipment	20.00	6,355.76				6,355.76
Miscellaneous Equipment	5.88	614.72		614.72		-
General Plant & Equipment						
Land	N/A	686,629.54				686,629.54
Structures and Improvements	2.50	1,892,885.26	15,426.96			1,908,312.22
Furniture and Equipment	5.88	107,582.27				107,582.27
Computer Equipment	6.67-14.29	50,434.16	7,267.23	2,991.28		54,710.11
Transportation Equipment	12.86	1,667,733.23	298,038.50			1,965,771.73
Work (Power) Equipment	9.00	337,313.04			13,680.00	350,993.04
Tools and Shop Equipment	5.88	254,414.04	20,634.16	6,947.06		268,101.14
Lab Equipment	5.88	148,350.90		12,885.50		135,465.40
Communication Equipment	9.09	7,298.00				7,298.00
Telephone Equipment	20.00	9,755.97				9,755.97
Miscellaneous Equipment	5.88	142,493.05				142,493.05
Total		<u>\$ 133,341,951.08</u>	<u>\$ 672,095.90</u>	<u>\$ 1,800,730.54</u>	<u>\$ 13,680.00</u>	<u>\$ 132,226,996.44</u>

**Sewerage System
Accumulated Depreciation
For the year ended December 31, 2012**

	Balance 1/1/2012	2012 Depreciation	Less Cost of Retirements	Add Cash Received	Adjustments Incr./Decr.	Balance 12/31/2012
Collection System						
Land	-					-
Structures and Improvements	(\$ 10,416.96)					(\$ 10,416.96)
Service Connections	678,152.74	38,092.81				716,245.55
Collecting Mains	10,387,985.36	457,571.36				10,845,556.72
Interceptor Mains	4,673,209.96	272,866.97				4,946,076.93
Force Mains	156,127.55	12,852.08				168,979.63
Collection Equipment	538,585.30	55,871.97	15,366.51			579,090.76
Collection System Pumping						
Land	-					-
Structures and Improvements	3,330,910.06	148,274.94				3,479,185.00
Receiving Wells	2,197,049.35	138,086.76				2,335,136.11
Electric Pumping Equipment	8,261,014.02	468,136.19				8,729,150.21
Other Power Pumping Equip.	113,441.85	9,020.70				122,462.55
Miscellaneous Pumping Equip.	12,208.47	1,506.25				13,714.72
Treatment and Disposal						
Land	-					-
Structures and Improvements	5,921,631.00	208,389.31	12,734.95			6,117,285.36
Preliminary Equipment	92,636.83	18,837.68				111,474.51
Primary Treatment Equipment	2,985,790.53	122,262.70	15,962.32			3,092,090.91
Secondary Treatment Equip.	6,463,818.00	63,930.80				6,527,748.80
Advanced Treatment Equip.	50,332.61	5,972.56				56,305.17
Chlorination Equipment	1,247,887.00			4,745.00		1,243,142.00
Sludge Treatment & Disposal	6,496,499.23	262,634.71	1,714,684.53			5,044,449.41
Flow Metering and Monitoring	341,621.55	22,217.66		1,522.06		362,317.15
Outfall Sewer	738,636.80	25,666.59				764,303.39
Engineering Equipment						
Furniture and Equipment	28,521.45	2,650.75		4,019.04		27,153.16
Computer Equipment	81,072.72	5,170.43		8,257.57		77,985.58
Transportation Equipment	224,502.74	16,771.08				241,273.82
Engineering Equipment	9,460.44	1,464.75				10,925.19
Communication Equipment	(1,610.32)					(1,610.32)
Telephone Equipment	1,906.73	(1,906.73)				-
Miscellaneous Equipment	343.42	18.08		614.72		(253.22)
General Plant & Equipment						
Land	-					-
Structures and Improvements	381,685.46	47,514.97				429,200.43
Furniture and Equipment	39,924.54	6,325.84				46,250.38
Computer Equipment	34,196.87	3,518.04		2,991.28		34,723.63
Transportation Equipment	1,323,558.71	67,044.46				1,390,603.17
Work (Power) Equipment	194,539.02	21,811.38			12,312.00	228,662.40
Tools and Shop Equipment	148,798.08	15,361.95		6,947.06		157,212.97
Lab Equipment	40,873.66	8,344.20		12,885.50		36,332.36
Communication Equipment	8,870.78	(1,572.78)				7,298.00
Telephone Equipment	2,926.79	1,951.19				4,877.98
Other Equipment	(17,178.02)	8,378.59				(8,799.43)
Total	\$ 57,179,514.32	\$ 2,535,038.24	\$ 1,800,730.54	\$ 0.00	\$ 12,312.00	\$ 57,926,134.02

**Clean Water Fund Project #4003-02
 Loan Payment Schedule
 Phase 1B - Interceptor
 December 31, 2012**

<u>Year</u>	<u>Principal</u>	<u>Interest</u>		<u>Total</u>
	<u>May 1</u>	<u>May 1</u>	<u>November 1</u>	
2013	376,749.54	7,563.25	–	384,312.79
	<u>\$ 376,749.54</u>	<u>\$ 7,563.25</u>	<u>\$ -</u>	<u>\$ 384,312.79</u>

Interest rate is 4.015%

**Clean Water Fund Project #4003-07
 Loan Payment Schedule
 Equalization Basin Modification
 December 31, 2012**

<u>Year</u>	<u>Principal</u>	<u>Interest</u>		<u>Total</u>
	<u>May 1</u>	<u>May 1</u>	<u>November 1</u>	
2013	84,462.09	11,972.24	10,633.94	107,068.27
2014	87,138.70	10,633.93	9,253.22	107,025.85
2015	89,900.12	9,253.23	7,828.76	106,982.11
2016	92,749.06	7,828.75	6,359.15	106,936.96
2017	95,688.28	6,359.15	4,842.97	106,890.40
2018	98,720.64	4,842.97	3,278.74	106,842.35
2019	101,849.10	3,278.74	1,664.94	106,792.78
2020	105,076.69	1,664.94	—	106,741.63
	<u>\$ 755,584.68</u>	<u>\$ 55,833.95</u>	<u>\$ 43,861.72</u>	<u>\$ 855,280.35</u>

Interest rate is 3.169%

**Sewerage System
Advance from Municipality
Debt Repayment Schedule
December 31, 2012**

<u>Year</u>	<u>Interest Rate %</u>	<u>Principal</u>	<u>Interest</u>		<u>Total</u>
		<u>April 1</u>	<u>April 1</u>	<u>October 1</u>	
2013	5.070%	34,837.70	7,101.52	6,404.77	48,343.99
2014	5.220%	36,177.61	6,404.77	5,636.00	48,218.38
2015	5.390%	37,517.52	5,636.00	4,791.84	47,945.36
2016	5.590%	38,857.43	4,791.84	3,820.42	47,469.69
2017	5.760%	41,537.26	3,820.42	2,678.15	48,035.83
2018	5.880%	44,217.08	2,678.15	1,406.91	48,302.14
2019	6.000%	46,896.90	1,406.91	-	48,303.81
Totals		<u>\$280,041.50</u>	<u>\$ 31,839.61</u>	<u>\$ 24,738.09</u>	<u>\$336,619.20</u>

**Sewerage System
Total Debt Repayment Schedule
December 31, 2012**

<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2013	496,049.33	43,675.72	539,725.05
2014	123,316.31	31,927.92	155,244.23
2015	127,417.64	27,509.83	154,927.47
2016	131,606.49	22,800.16	154,406.65
2017	137,225.54	17,700.69	154,926.23
2018	142,937.72	12,206.77	155,144.49
2019	148,746.00	6,350.59	155,096.59
2020	105,076.69	1,664.94	106,741.63
Totals	<u>\$ 1,412,375.72</u>	<u>\$ 163,836.62</u>	<u>\$ 1,576,212.34</u>

Wastewater Treatment Plant

7834 3rd Avenue
Kenosha WI 53143

Phone (262) 653-4335
Fax (262) 653-4340



“Providing and Protecting Kenosha’s Greatest Natural Resource”

May 2013

Mr. Edward St. Peter
Kenosha Water Utility
4401 Green Bay Road
Kenosha, WI 53144

Subject: 2012 Industrial Pretreatment Program Annual Report

Dear Mr. St. Peter,

The Industrial Pretreatment Program is a requirement of the Clean Water Act and is regulated by the Wisconsin Department of Natural Resources in our wastewater treatment plant discharge permit. The program regulates and monitors local industries, waste haulers and adjoining communities discharging to Kenosha’s wastewater collection system. The program is designed to prevent the discharge of pollutants to the wastewater treatment plant which could interfere with operations or disposal of biosolids, to prevent the introduction of pollutants to the wastewater treatment plant that may pass through to the lake and to protect employee health and safety.

Significant dischargers are monitored where their wastewaters enter the Kenosha sanitary sewer collection system; haulers are monitored at the wastewater treatment plant. Adjoining communities are monitored weekly to validate the concentration of conventional parameters being discharged to the collection system. We receive wastewater from the Villages of Pleasant Prairie and Bristol and the Town of Somers.

The wastewater treatment plant effluent and sludge continue to meet or exceed discharge limits. The wastewater sludge is locally landfilled and meets the State of Wisconsin’s requirements for a high-quality sludge.

The most significant change to the program this year was employee staffing. I was hired in April 2012 and began administering the program immediately. Much time was spent reviewing discharge permit requirements and becoming acquainted with the permitted entities.

Respectfully submitted,

A handwritten signature in cursive script that reads "Katrina Karow".

Katrina Karow
Laboratory Supervisor

**SUMMARY OF INFLUENT METALS TO THE
KENOSHA WASTEWATER TREATMENT PLANT**

POTW Influent: pounds/day

Year	Cadmium	Chromium	Copper	Nickel	Lead	Zinc	Mercury
1994	< 0.097	1.58	13.0	2.41	2.41	23.0	
1995	0.14	4.7	16.2	1.7	2.6	20.0	
1996	0.20	1.8	10.5	2.3	2.5	24.4	
1997	< 0.06	0.49	5.6	2.0	1.2	16.1	
1998	< 0.08	0.52	9.2	3.0	2.9	22.0	
1999	0.15	1.3	7.7	1.3	2.0	19.9	
2000	0.35	7.4	7.7	9.1	2.1	18.3	
2001	< 0.20	1.8	11.0	1.4	1.4	25.9	
2002	< 0.18	1.9	9.7	1.6	1.6	27.4	0.015
2003	< 0.16	1.4	9.4	1.7	1.2	19.1	0.032
2004	< 0.38	1.1	23.0	1.1	1.1	34.3	0.012
2005	< 0.31	1.1	10.4	0.78	1.1	23.7	0.030
2006	< 0.34	0.85	7.8	1.0	0.85	16.5	0.016
2007	< 0.5	1.1	12.0	1.3	2.4	23.0	0.022
2008	< 0.7	0.9	8.4	0.9	< 0.7	18.3	0.031
2009	< 0.4	0.6	7.6	1.0	< 0.6	18.0	0.018
2010	0.075	1.4	9.7	0.63	0.88	23.4	0.006
2011	< 0.14	0.8	8.5	0.58	0.56	20.9	0.008
2012	< 0.13	0.85	8.5	0.73	0.68	28.8	0.010

**SUMMARY OF EFFLUENT METALS FROM THE
KENOSHA WASTEWATER TREATMENT PLANT**

POTW Effluent: pounds/day

Year	Cadmium	Chromium	Copper	Nickel	Lead	Zinc	Mercury
1994	< 0.1	< 0.32	4.2	2.1	0.39	3.4	
1995	< 0.07	< 0.24	3.3	1.6	< 0.28	3.8	
1996	0.08	0.29	2.3	1.4	0.32	4.5	
1997	< 0.06	< 0.11	0.9	1.4	0.11	4.3	
1998	< 0.06	< 0.1	1.0	1.4	0.17	4.8	
1999	< 0.08	< 0.2	0.80	0.76	< 0.64	4.3	
2000	< 0.16	< 0.33	0.82	0.86	< 0.66	4.1	
2001	< 0.20	< 0.41	< 1.2	0.97	< 0.71	7.6	
2002	< 0.18	0.30	< 1.2	0.97	0.71	7.6	0.0028
2003	< 0.16	0.18	< 1.1	1.43	0.64	4.8	0.0016
2004	< 0.38	< 0.38	1.5	0.75	< 0.94	5.3	0.0005
2005	< 0.31	< 0.31	0.94	0.62	< 0.47	5.1	0.0005
2006	< 0.34	< 0.34	1.0	0.51	0.51	6.3	0.0008
2007	< 0.5	< 0.5	1.6	0.8	0.8	8.2	0.0008
2008	< 0.7	< 0.7	1.0	< 0.7	< 0.7	5.2	0.0006
2009	< 0.4	< 0.6	< 1.0	0.8	< 0.6	4.6	0.0004
2010	< 0.03	0.37	1.3	< 0.22	0.47	5.8	0.0004
2011	< 0.14	< 0.27	0.8	< 0.36	< 0.17	5.4	0.0002
2012	< 0.05	< 0.16	1.0	< 0.44	< 0.14	6.2	0.0002

Wastewater Treatment Plant

7834 3rd Avenue
Kenosha WI 53143

Phone (262) 653-4335
Fax (262) 653-4340



"Providing and Protecting Kenosha's Greatest Natural Resource"

May 2013

Mr. Edward St. Peter
Kenosha Water Utility
4401 Green Bay Road
Kenosha, WI 53144

Subject: 2012 Household Hazardous Waste Collection Program Annual Report

Dear Mr. St. Peter,

The Water Utility organizes and staffs a Residential Household Hazardous Waste Program on the first Saturday of the month (January-April and December) and on the first and third Saturdays of the month (May-November). The goal of the program is to offer City of Kenosha residents a convenient disposal option for household hazardous wastes in an effort to minimize waste disposed to sanitary and storm sewers.

All events are staffed solely by Water Utility employees. There are at least five to six employees plus a chemist in charge for each event. The employees collect acceptable chemicals for disposal and offer educational materials to customers about where they can dispose of unacceptable chemicals (e.g. oil, antifreeze, medicine, needles). The collected chemicals are disposed through a contractual disposal company.

The Water Utility conducted nineteen collection events throughout the year. As in past years, it was well received. The number of residents disposing waste per event ranged from fifty-two (March 3) to 136 (October 6) with an average of ninety-two per event. The total number of participants in 2012 was 1,747 which was the highest attendance over the last three years. The increase in attendance is likely due to the fact that there were only eighteen collection events per year in 2010 and 2011 due to holidays.

Respectfully submitted,

A handwritten signature in black ink that reads "Katrina Karow".

Katrina Karow
Laboratory Supervisor

Kenosha Household Hazardous Waste Program Participation

2012 Collection Dates and Number of Participants

January 7	71 participants
February 4	73 participants
March 3	52 participants
April 7	131 participants
May 5	133 participants
May 19	84 participants
June 2	118 participants
June 16	77 participants
July 7	108 participants
July 21	65 participants
August 4	102 participants
August 18	65 participants
September 1	83 participants
September 15	74 participants
October 6	136 participants
October 20	76 participants
November 3	124 participants
November 17	84 participants
December 1	94 participants
Total Participants	1,747

The program averaged 92 participants per collection day.

Household Hazardous Waste Unit Comparative Income Statement

	<u>2012</u>	<u>2011</u>	<u>2010</u>
Operating Revenue			
Residential	\$ 167,168.87	\$ 167,072.27	\$ 166,618.66
Stormwater Administration	14,040.00	14,040.00	7,062.00
Penalties	4,127.45	4,310.15	3,994.64
Total Operating Revenue	<u>185,336.32</u>	<u>185,422.42</u>	<u>177,675.30</u>
Operating Expenses			
Labor and Supplies	42,324.37	41,105.73	40,474.98
Outside Disposal Service	34,246.63	25,113.58	23,734.95
Costs Allocated from Other Funds:			
Wages	64,455.41	64,600.72	61,894.35
Postage	7,718.16	7,222.14	6,924.14
Other	2,844.49	2,666.04	2,711.94
Depreciation	2,561.16	1,997.08	2,021.23
Total Operating Expenses	<u>154,150.22</u>	<u>142,705.29</u>	<u>137,761.59</u>
Operating Income	31,186.10	42,717.13	39,913.71
Other Income			
Interest Income	152.61	166.52	352.46
Net Income	<u>\$ 31,338.71</u>	<u>\$ 42,883.65</u>	<u>\$ 40,266.17</u>

**Household Hazardous Waste Unit
Statement of Net Position
December 31, 2012**

		Assets		
Utility Plant				
	Plant in Service	\$ 77,230.31		
	Accumulated Depreciation	<u>(12,013.23)</u>		
			65,217.08	
Current Assets				
	Cash	250,344.74		
	Accounts Receivable	27,295.70		
	Receivable from Municipality	20,221.44		
	Unbilled Revenues	<u>20,953.75</u>		
			318,815.63	
	Total Assets			<u><u>384,032.71</u></u>
		Liabilities		
Current and Accrued Liabilities				
	Accounts Payable	7,789.60		
	Payable to Municipality	<u>222.17</u>		
			8,011.77	
	Total Liabilities			<u>8,011.77</u>
		Net Position		
	Invested in Capital Assets	65,217.08		
	Unrestricted	<u>310,803.86</u>		
	Total Net Position			<u><u>\$ 376,020.94</u></u>

**Household Hazardous Waste Unit
Plant in Service and Accumulated Depreciation
For the year ended December 31, 2012**

	Depr. Rate %	Plant in Service				Cost of Plant 12/31/2012
		Cost of Plant 1/1/2012	2012 Additions	2012 Retirements	Adjustments Incr/(Decr)	
General Plant						
Structures and Improvements	4.00	\$ 48,194.22	53,614.91	25,410.82	–	\$ 76,398.31
Equipment	8.33	832.00	–	–	–	832.00
Total		<u>\$ 49,026.22</u>	<u>53,614.91</u>	<u>25,410.82</u>	<u>–</u>	<u>\$ 77,230.31</u>

	Accumulated Depreciation					Balance 12/31/2012
	Balance 1/1/2012	2012 Depreciation	Less Cost of Retirements	Add Cash Received	Adjustments Incr./Decr.	
General Plant						
Structures and Improvements	\$ 33,728.07	2,491.85	25,410.82	518.66	–	\$ 11,327.76
Equipment	616.16	69.31	–	–	–	685.47
Total	<u>\$ 34,344.23</u>	<u>2,561.16</u>	<u>25,410.82</u>	<u>518.66</u>	<u>–</u>	<u>\$ 12,013.23</u>