

July 21, 2014

Reference No. _____

Patrick Brown, Chairperson
Chairperson and Members
Niagara Falls Public Water Authority
5815 Buffalo Avenue
Niagara Falls, New York 14304

Mr. Ted Janese III, Chairman
Chairman and Members
Niagara Falls Water Board
5815 Buffalo Avenue
Niagara Falls, New York 14304

Re: Continuing Disclosure Report of the Consulting Engineer and Rate Consultant Water, Wastewater and Stormwater System

Dear Chairmen and Members of the Authority and Board:

The purpose of this letter and the accompanying 2014 Continuing Disclosure Report (“2014 CDR” or “2014 Report”) is to update the conclusions of the independent engineering and financial analysis that were included in the 2012 Continuing Disclosure Report (“2012 CDR”), dated June 29, 2012 and the 2013 Feasibility Report (the “2013 Report”), dated June 5, 2013.

The Niagara Falls Public Water Authority (the “Authority”) and the Niagara Falls Water Board (the “Board”) are required to deliver certain financial information and operating data in each fiscal year to the Electronic Municipal Market Access (“EMMA”) System implemented by the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934 or any successor thereto. This 2014 CDR is intended to meet those requirements. The information and data is for the benefit of the beneficial owners of the bonds issued for the Board by the New York State Environmental Facilities Corporation (“NYSEFC”) in 2013, which refunded the previously issued 2003 EFC Bonds, and 2005 (the “2013 EFC Bonds” and the “2005 EFC Bonds”, respectively), and the bonds issued by the Authority in 2013, which refunded the previously issued 2003 Authority Bonds, and 2005 (the “2013 Authority Bonds” and the “2005 Authority Bonds”, respectively), collectively referred to as the “Outstanding Bonds”. All terms referred to in this letter and the accompanying 2014 Report that are not defined herein are as defined in the Official Statements for the Outstanding Bonds.

The projections presented in this letter and the accompanying 2014 Report are preliminary in nature and are based on the recent financial experience of the Board and the Authority and assumptions regarding future policy decisions of the Board and its performance. The projections include provisions for the financing of future improvements to the Water, Wastewater and Stormwater System (the “System”) of the Board as reflected in the Preliminary Capital Improvement Program (the “CIP”). The projected cash flows are also presented as a preliminary draft that is subject to change. The projected cash flows are intended to assess the ability of the Board and Authority to meet the operating costs, working capital needs and other financial requirements including the debt service requirements associated with the Outstanding Bonds and future financing for the period of 2014 through 2018 (the “Projection Period”). All references to years in the 2014 Report refer to the fiscal years of the Board and Authority, which end on December 31. As Consulting Engineer to the Authority, URS Corporation (“URS”) provides the engineering and operations-related opinions of this letter and the 2014 Report. In order to assess the anticipated operating condition of the System during the projection period, URS evaluated the proposed improvements and additions to the System under the CIP. Drescher & Malecki LLP, Rate Consultant to the Board, provides the financial and management consulting opinions of this letter and the 2014 Report.

In preparing this 2014 Report, we reviewed, to a reasonable extent, the books, records, reports, operating information and statistical data of the Authority and the Board, and conducted other investigations and analyses as deemed necessary to prepare this 2014 Report.

Based on our studies, we offer the following opinions and conclusions:

- The System is currently in adequate condition to support the delivery of water, wastewater and stormwater services and the generation of user revenues.
- The water treatment facilities are in good condition, requiring few modifications during the projection period. The water distribution system is currently in adequate condition overall although the rate of leakage is higher than typical industry averages. However, in the past two years the rate of leakage has stabilized.
- The wastewater treatment plant (the “WWTP”) is in adequate condition overall, but certain components are in poor to adequate condition.
- During the projection period, the wastewater treatment facilities will require both routine and non-routine repairs, replacements and improvements as described herein. The wastewater collection system is in adequate condition overall but certain facilities require capital improvements as described herein. As described in the 2014 Report, certain improvements to the wastewater treatment facilities have been recently completed addressing many components that were previously in poor condition. Additional capital improvements will be implemented in 2014 and beyond within the wastewater treatment facilities and collection system.
- Board staff, including management and operations personnel, is well qualified and effectively organized.
- Through appropriate technology, staffing, tools, and equipment, the Board has operations and maintenance programs that are capable of ensuring the continued effective operation of the System. The System should continue to provide adequate levels of service with minimal disruption.
- The Board is currently in compliance with the conditions of all existing permits, regulations, and other requirements governing safe drinking water standards. The wastewater treatment facilities have been in compliance with all existing permits, regulations, and other requirements, with certain minor exceptions. The wastewater discharge permit requires that additional improvements be made within the sewer collection system, principally relating to Combined Sewer Overflow (CSO). While an Order On Consent requires Sanitary Sewer Overflow (SSO) abatement. The Board, in conjunction with professional engineering consultants, prepared separate plans to address the CSO and SSO issues. Both plans were approved by the NYSDEC. The CIP includes funding for anticipated capital improvements that will address the requirements of the permit during the Projection Period.
- In 2004, the Board authorized the development of a Master Plan for wastewater treatment (the “Strategic Wastewater Treatment Master Plan”). The Master Plan concluded that the upgrading of the existing wastewater treatment plant was more cost effective than other Board-sponsored alternatives such as the construction of a new treatment plant. The

Master Plan identified the need for significant capital improvements at the wastewater treatment plant. The Board has retained firms to provide program management and engineering design services in support of the planned improvements. Improvements to the influent screens, carbon filter valves and controls and heating, ventilation and air conditioning (“HVAC”) improvements in the carbon building were completed in early 2009 and 2010 (Phases 1 and 2).

Phase 2A upgrades to the WWTP were completed in the first quarter of 2013 and include upgrades and replacement to the filter backwash pumps, instrumentation, and controls. Also in 2013, a second gravity thickener for sludge processing was being refurbished. The underground subsidence repairs that threatened plant utilities was also performed in 2013. Additional rehabilitation and replacement projects are likely to be undertaken at the WWTP in the near future (Phase 3). Phase 3 work has been prioritized, but is currently on-hold while the WWTP continues with the flood mitigation projects. Once the flood mitigation measures are completed and proceeds from the insurance are obtained, Phase III design and construction will resume. The Phase III work includes; carbon filter underdrain repairs, partial replacement of the main influent pumps (2 of 4 will be replaced), refurbishment of the plant water system, and upgrades to the polymer system.

During the summer of 2013 a roof repair and replacement project was undertaken at the WWTP and included the replacement of approximately 78,000 square feet of roofs. Strategic structural repairs to building exteriors including concrete and masonry repairs were undertaken as part of this project. In the summer of 2014 additional masonry and building envelope repairs are being performed to address areas in the worst condition or having a potential for building leakage. Additional building envelope and masonry repairs will be needed in the future.

- The Board previously reached an agreement with the New York Power Authority (“NYPA”) related to the infiltration of water from NYPA’s hydropower intake facilities into the Falls Street Tunnel (the “FST”). This infiltration accounted for over 20% of the total influent flow into the wastewater treatment plant of the Board. Under the terms of the Agreement, NYPA paid \$19 million to the Board in November 2007; the proceeds of which were intended to reduce or eliminate the NYPA FST inflow. The Board completed a predesign feasibility study in 2008 which evaluated the alternatives that would achieve that objective. The design of the recommended improvements began in 2009; construction was initiated in 2011, and was completed in 2012. The final cost of the construction project (\$6.2 million) was significantly less than the funds paid to the Board. Following the FST project, a post-construction inspection revealed that groundwater leakage was occurring in an adjacent sewer/tunnel (the Iroquois Street Sewer) and was also a candidate for repairs. A study and detailed design was conducted in 2013 and construction is slated to start in July 2014, and completing by December 2014. The construction cost of \$2.5 million will also be paid from NYPA settlement money. Upon completion of the project flows to the WWTP are expected to be reduced. The remaining monies from the \$19 million payment, beyond the actual amounts needed for the FST and Iroquois Street sewer repairs, are available for other utility capital projects identified in the Board’s CIP.
- In 2009, the Board was approved for \$11 million in funding from the New York State Environment Facilities Corporation (“NYSEFC”) to complete the second phase of cleaning and restoration of the North Gorge Interceptor (“NGI”). The funding, administered through the NYSEFC, was approximately \$5.5 million provided in the form

of a subsidized loan at 50% of the market interest, and approximately \$5.5 million in principal forgiveness from an American Recovery and Reinvestment Act grant. Construction on the NGI was completed during 2011.

- In 2012 the Board undertook a project to examine the wastewater plant to look for energy saving opportunities. The study was funded by the New York Power Authority (NYPA) and the New York State Environmental Facilities Corporation (NYSEFC). As a result of that project, \$3.8 million in energy saving upgrades were identified. As of June 2014, the design is underway.
- It is anticipated that the Board will fund the CIP through the following sources: existing monies in its Construction Fund; the proceeds of anticipated future bonds issued by the Authority; proceeds from the NYPA payment; and surplus funds generated in each year. Significant additional improvements to the wastewater treatment plant will be required both within and beyond the Projection Period.
- Collective bargaining agreements with all four of the Board's labor unions expired on December 31, 2010. The previous union contract created a second tier benefit package for employees hired after January 2008. This new tier continues to provide long-term savings to the Board as new employees replace outgoing retirees. The package includes a more modest health care plan with a 20% employee contribution, a halving of paid sick and holidays, and a new paid time-off plan. The unionized work force continues to work under the terms of the expired agreements. Negotiations on the now expired contracts are ongoing.
- In 2004, the Board authorized the preparation of a Competitiveness Plan for its operations. The Competitiveness Plan identified opportunities to optimize operations and maintenance services while reducing the required number of employees over time through increased automation, employee training, improved tools and equipment and other techniques. From September 2003 to April 30, 2014, the number of employees declined from 141 to 88. The intent of the Board is to implement changes in technology and business processes simultaneously with attrition in the workforce in order to optimize the efficiency and effectiveness of its operations.
- Water sales to customers of the System decreased in 2008, 2009 and 2010 by 5.5%, 13.4% and 9.8%, respectively, as compared to the demand in the prior year. However, in 2011, 2012 and 2013 total water sales increased by 3.1%, 4.2% and 7.9%, respectively. Rising sales to industrial users has driven the increases in total water sales over the past three years. Additional increases in industrial sales are anticipated in future years with several new industrial projects under construction. The financial projections assume that water sales will increase 2.6%, 1%, 1%, 1% and 1% in 2014, 2015, 2016, 2017 and 2018, respectively.
- Year-to-date cash collections from customer payments through May 31, 2014 are slightly higher than expectations for this period. In addition, interest earnings and investments are less than expected due to the very low rates that are available on permissible investments. Based on year-to-date experience, the Board's expenses are anticipated to be less than budgeted amounts. Table 16 of the 2014 CDR summarizes the current preliminary estimate of revenues, expenses, debt service, other expenses and debt service coverage for 2014 through 2018. All amounts are subject to change.

- Based on the year-to-date results through May 31, 2014, the Board will have to carefully monitor its cash flows during 2014 to ensure that debt service coverage requirements are met. While current projections show the Board will meet debt service coverage requirements for 2014, there are many factors, such as weather and economic conditions, which could affect such projections. The Board should carefully monitor revenues and expenses in 2014 to ensure that debt service coverage requirements are met. Table 16 of the 2014 CDR was reviewed by the members of the Board in advance of the issuance of this Report.
- The Board has increased the rates for water and wastewater service in the City of Niagara Falls (the “City”) for 2014 by 2.6% as compared to those for 2013. The preliminary projections of percentage increases in water and wastewater rates and charges for 2015 through 2018 for customers within the City are presented in Table 16 of the 2014 CDR.

The projected increases in rates included in Table 16 of the 2014 CDR are preliminary and subject to change. The future increases in the rates of the Board are dependent upon upcoming Board policy decisions regarding: the size, scope and timing of the CIP; the use of the remaining monies from the NYPA settlement; and potential reductions in annual operation and maintenance expenses. Future increases in rates are also dependent upon actual experience and future assumptions regarding customer demand as well as other factors. The Board has expressed its interest in minimizing rate increases while at the same time meeting its financial, capital investment and operating obligations. As a result of all of the above considerations, actual increases adopted by the Board may differ from the amounts shown above.

- Current rates for water and wastewater service are comparable to surrounding service providers.
- The Board is in compliance with the reserve fund requirements of the Resolution, including the required amounts on deposit in the Debt Service Reserve Fund and the Operating Reserve Fund.
- During the analysis of 2014-2018 revenues and revenue requirements, Drescher & Malecki LLP reviewed certain assumptions with respect to conditions, events and circumstances, which may occur in the future. The firm believes that these assumptions are reasonable and attainable, although actual results will differ from those forecasted as influenced by the conditions, events and circumstances that actually occur.

We wish to extend our gratitude to the Board and the Authority for the support provided in preparing this report. We appreciate the opportunity to be of service in this important matter.

Very truly yours,



John Goeddertz, Ph.D.
URS Corporation
Consulting Engineer

Very truly yours,



Matthew J. Montalbo, CPA
Drescher & Malecki LLP
Rate Consultant

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Continuing Disclosure Report of the Consulting Engineer and Rate Consultant

Introduction

This 2014 Continuing Disclosure Report, prepared in June 2014 (the “2014 CDR” or the “2014 Report”), provides information to supplement and update information presented in the Feasibility Report of the Consulting Engineer and Rate Consultant, prepared in August 2005 (the “2005 Report”), included in the Official Statement for the 2005 Authority Bonds, the Feasibility Report prepared in June 2013, included in the Official Statement for the 2013 Bonds (the “2013 Report”), the 2007 Continuing Disclosure Report prepared in June 2007, the 2008 Continuing Disclosure Report prepared in June 2008, the 2009 Continuing Disclosure Report prepared in July 2009, the 2010 Continuing Disclosure Report prepared in July 2010, the 2011 Continuing Disclosure Report prepared in June 2011, the 2012 Continuing Disclosure Report prepared in June 2012 collectively referred to as the “Prior Reports”. Except where noted, the table numbers and titles used in the 2014 CDR correspond to the table numbers and titles in the Prior Reports. In matters presented in the Prior Reports where we have been advised by the Board that no material change has occurred since the preparation of the Prior Reports, no additional information is presented in this 2014 CDR. Throughout the 2014 CDR, references are made to the Water, Wastewater and Stormwater System of the Board (the “System”) which serves the City of Niagara Falls (the “City”) and provides water service to small portions of adjacent communities.

Board and Authority Members

Mr. Ted Janese III became the Chairman of the Board in 2011 (having previously served as a member of the Board). Ms. Gretchen Leffler is the Vice Chairman of the Board and Mr. Lawrence Edwards is the Treasurer of the Board. Ms. Renae Kimble and Mr. Gary Laible are members of the Board.

Mr. Patrick Brown is the Chairperson of the Authority (having previously been a member of the Authority). Mr. Jason Murgia is the Vice Chairman of the Authority. Mr. Eugene Piekarski is the Treasurer and Secretary of the Authority.

Organization and Staff of the Board

Mr. Paul Drof is the Executive Director of the Board. Mr. Drof has over 30 years of progressive experience in the environmental water and wastewater industry, with an emphasis on strategic budgeting and planning along with innovative process optimization and cost-saving initiatives. In

the field of water and wastewater, Mr. Drof has extensive knowledge of industrial pretreatment programs, activated sludge and physical-chemical treatment, carbon adsorption and regeneration, hazardous waste site remediation, public-private partnerships, process review and optimization and regulatory experience.

Mr. Drof received a Bachelor of Science degree from the State University of New York at Fredonia (SUNY-Fredonia). He also conducted post-graduate studies in biology at SUNY-Fredonia. He is a licensed water treatment plant operator and a licensed wastewater treatment operator in New York State. Prior to joining the Board, Mr. Drof served as Superintendent of Water/Wastewater Treatment for the City of North Tonawanda, NY.

The total staffing levels have declined since the Board acquired the System in September, 2003. Staffing levels are expected to remain stable or decline in the future as the Board has increased the automation of the System and provided enhanced employee training, new business processes and improved tools and equipment.

The table presented below illustrates the staffing levels for the System as of April 30, 2014.

Table 1 – Changes in System Staffing

	Staff Positions *			
	<u>4/30/2008</u>	<u>4/30/2010</u>	<u>4/30/2012</u>	<u>4/30/2014</u>
Water Facilities Division	38.0	38.5	38.0	38.0
Wastewater Facilities Division	<u>63.0</u>	<u>50.5</u>	<u>49.0</u>	<u>50.0</u>
Total System	<u><u>101.0</u></u>	<u><u>89.0</u></u>	<u><u>87.0</u></u>	<u><u>88.0</u></u>

* Denotes filled positions. Authority and Board members, as well as, personnel providing support services are not included in the above figures. The above totals also do not include staff members that are currently on unpaid leave.

The City provided certain support services to the System in the form of engineering, legal, billing and collection, accounting and fleet maintenance services during the initial years of the Board’s operations. Under the terms of the Operations Agreement between the City and the Board, the Board notified the City that it wished to assume direct responsibility for the support services provided by the City. For example, the Board installed a new financial management system and began billing customer accounts and directly receiving customer non-cash payments during 2008. The City continues to work with the Board in providing collection services for overdue accounts

and other services. Under the terms of the agreement, the Board will pay the City approximately \$95,000 per year for the services it receives.

Water Treatment

The average daily output from the Board’s water treatment plant for 2010 through 2013 is shown in the following table.

Table 2 – Average Daily Production of Treated Water

Year	2010	2011	2012	2013
Flow (MGD)	18.20	18.40	18.38	17.90

Water Distribution System

The distribution system consists of approximately 260 miles of various diameter water mains, 2,287 fire hydrants, over 5,000 valves, two elevated water storage tanks and over 19,000 metered services. The distribution system is a single pressure system. The Water System services the City and several “out-of-town” customers adjoining the City. The Water System also has two major inter-municipal interconnections with the Niagara County Water District that allow for the purchase/sale of water in either direction for emergency or shut down maintenance events.

Treated water is pumped from the water treatment plant to the Water System’s 260 miles of pipe and also to the 56th Street elevated water storage tank that has a capacity of 2 million gallons (“mg”). The elevated tank provides added reliability to the Water System, as it will transparently pick up full system demand if the high-lift pump station is shutdown. A second 2 mg elevated storage tank at Beech Avenue is currently shut down and isolated from the Water System. This facility has been used to generate revenues through the lease of space for cellular antennas. The distribution system is constructed primarily of unlined cast iron piping varying in size from 6 inch to 30 inch.

The tables located on the following page provide information on the water mains and the approximate age of the pipes comprising the water distribution system.

Table 3 – Distribution System Piping

<u>Water Main</u>	<u>Material Type</u>	<u>Length (ft)</u>
6-inch	PVC	1,500
8-inch	PVC	2,610
10-inch	PVC	700
12-inch	Asbestos Cement	5,500
20-inch	Cast/Ductile Iron	7,800
24-inch	RCPP	5,600
30-inch	RCPP	13,370
36-inch	RCPP	16,810
42-inch	RCPP	7,850
2-inch	Cast/Ductile Iron	700
4-inch	Cast/Ductile Iron	95,030
6-inch	Cast/Ductile Iron	596,540
8-inch	Cast/Ductile Iron	239,680
10-inch	Cast/Ductile Iron	121,455
12-inch	Cast/Ductile Iron	102,045
14-inch	HDPE	6,540
16-inch	Cast/Ductile Iron	59,660
20-inch	Cast/Ductile Iron	46,730
24-inch	Cast/Ductile Iron	26,230
30-inch	Cast/Ductile Iron	9,060
	Total	1,356,350

*Table 4 – Niagara Falls Water System
Approximate Age Distribution of Pipe*

<u>Age</u>	<u>Feet</u>	<u>Percent</u>
1890-1910	65,802	5%
1911-1930	515,179	38%
1931-1950	288,940	21%
1951-1970	251,682	18%
1971-1990	144,121	11%
1991-2013	101,772	7%
Total	1,367,496	100%

Unbilled Water

In Prior Reports, this section was described as unaccounted-for water. The term unaccounted-for water is redefined below and a definition is provided for unbilled water. The Water Facilities Division calculates the percentage of unbilled water based on the difference in quantity between the treated water pumped into the Water System and the number of billed units provided to customers, divided by the treated water pumped. Unbilled water includes both known uses that are not measured or billed (e.g., water used in firefighting and hydrant flushing) and unaccounted-for water such as losses due to leaks in the System. Unbilled water has been 60% percent or more of treated water for the last four years, a percentage that is significantly higher than typical industry averages. However, this percentage decreased 6% from 2012 to 2013. The table presented below shows the average percentages of unbilled water by year. The Board has approved a hydrant study, which will examine leakage throughout the System. Furthermore, staff is presently reviewing a previously completed leakage survey and anticipates completion of an updated study in the near future.

Table 5 – Unbilled Water

Year	Percent of Treated Water
2010	68%
2011	68%
2012	68%
2013	62%

The marginal cost to the Board of treating and pumping water that is not sold is relatively low. Notwithstanding the absence of a significant cost incentive, the CIP for the Water System is focused primarily on improvements to the distribution system that, over time, together with the increased focus on identifying lost water should result in a decline in unaccounted-for water. In 2012, and 2013 through 2015 the Board has embarked on an aggressive meter replacement program. In 2012 a pilot study was performed that included replacement of 450 meters. In 2013 through 2015 16,000 residential and commercial meters will be replaced. The new meters are auto-read (drive by), which will reduce labor necessary to obtain meter readings and free up personnel for more important tasks. The objective of the meter replacement program is to improve the accuracy of the water meters as metered water use is the means by which revenue is generated. Based on the experiences of other water utilities in similar situations, the implementation of these programs should lead to a reduction in unaccounted-for water.

Water System Staffing

The following table illustrates the number of personnel in each of the eight (8) sections of the Water System as of April 30, 2014.

Table 6 – Water System Staffing

Section	Staff Positions
Laboratory	2.0
Administration	4.5
Information Technology	3.0
Engineering	3.0
Purification Operations	8.0
Inside Water Maintenance	3.5
Outside Water Maintenance	9.5
Meter Shop	<u>4.5</u>
Total Water System Staff	<u><u>38.0</u></u>

Based on our review of the Water System, including interviews and discussions with its management and staff, we believe that the Water System is adequately staffed and key management personnel have the qualifications and experience commensurate with their responsibilities.

Wastewater Treatment

The following table identifies the historical flows through the wastewater treatment plant (“WWTP”).

Table 7 – Average Daily Production of Treated Water

Year	2010	2011	2012	2013
Flow (MGD)	31.87	34.17	31.15	32.89

Wastewater Facilities

The facilities of the Wastewater System include a wastewater treatment plant (“WWTP”), 8 pumping stations, over 255 miles of combined and separate sanitary sewer lines and 6 combined sewer overflow points. The Wastewater System uses a collection system of lateral, collection and trunk sewers that convey wastewater to the WWTP. The majority of the service area utilizes combined sewers that carry both wastewater and storm water in one pipe. Pipe sizes range from 8 inches to 72 inches in diameter. The Wastewater System also includes approximately 15 miles of large conveyance structures ranging in size from 36 inches to 32 feet in diameter.

The eastern portion of the City has a separated sanitary system and storm sewer system. This portion of the Wastewater System uses pumps to alleviate sanitary sewer overflows that occur during certain wet weather events. This procedure complies with the terms of the Board’s permit from the DEC. The pumping stations of the Board are listed in the following table:

Table 8 – Pump Station and Bypass Station Capacities

<u>Lift Station</u>	<u>Location</u>	<u>Approximate Capacity (MGD)</u>
Gorge	Gorge Pump Station Site	19.5
LS-1	Stephenson & 81st Streets	4.3
LS-2	Griffon Avenue	1.0
LS-3	Buffalo Avenue & 56th Street	1.7
LS-4	91st Street & Luick Avenue	1.7
LS-6	81st Street & Frontier Avenue	4.3
LS-7	Boiler Avenue & Military Road	0.8
LS-8	101st Street	1.0
BPS-1	Cayuga Drive & South Military Road	2.9
BPS-2	West Rivershore Drive	1.0

Like most urban systems of its age with combined storm water and sanitary sewer systems, the Wastewater System has incurred problems with infiltration whereby storm water and ground water enter the pipes devoted to wastewater. This has resulted in added treatment expense.

Like the Water System, the Wastewater System obtains low-cost hydropower from National Grid, which is made available through NYPA. In the case of the Wastewater System, this amounts to approximately 1.6 megawatts per year.

Wastewater System Staffing

The table presented below illustrates the number of personnel in each of the six (6) sections of the Wastewater System as of 4/30/14.

Table 9 – Wastewater System Staffing

Section	Staff Positions
Monitoring and Compliance	3.5
Analytical Services	7.0
Sewer Collection System Maintenance (1)	8.0
Administrative / Technical	4.5
Plant Operations	14.0
Plant Maintenance	<u>13.0</u>
Total Wastewater System Staff	<u><u>50.0</u></u>

- 1) Includes sanitary sewers, combined sewers and storm sewers. Positions for stormwater maintenance were paid for through the City's General Fund, prior to acquisition of the System by the Board.

Based on our review of the Wastewater System, including interviews and discussions with its management and staff, we believe that the Wastewater System is adequately staffed and key management personnel have the qualifications and experience commensurate with their responsibilities.

Wastewater System Customer Base

The Wastewater System serves the City and, through a mutual services agreement, limited portions of the Town of Niagara. The Wastewater System serves a population of approximately 50,193 according to the 2010 U.S. Census. The table on the following page shows consumption and revenue information by customer class.

Table 10 – Wastewater Demand, Revenue and Account Information by Customer Class

<u>Class of Customer</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Residential/Commercial					
Consumption (CCF)	1,352,563	1,423,330	1,329,279	1,344,810	1,331,527
Number of Accounts	18,636	18,558	18,484	18,509	18,470
Revenues	\$ 5,774,464	\$ 5,835,380	\$ 5,613,519	\$ 5,786,365	\$ 6,145,555
Industrial					
Consumption (CCF)	858,735	680,170	725,931	780,293	806,434
Number of Accounts	275	280	339	250	253
Revenues	\$ 2,246,969	\$ 2,467,557	\$ 2,483,215	\$ 3,356,519	\$ 3,709,417
Significant Industrial Users (SIU)					
Consumption (CCF)	883,541	686,179	820,292	868,945	1,123,975
Number of Accounts	26	27	23	23	24
Revenues	\$ 4,127,926	\$ 4,710,774	\$ 5,418,185	\$ 4,278,686	\$ 7,172,091
Non-Resident Users					
Consumption (CCF)	-	5,498	3,581	3,205	43,480
Number of Accounts	27	28	27	28	27
Revenues	\$ 91	\$ 12	\$ 32,736	\$ 384,520	\$ 468,650
Total					
Consumption (CCF)	3,098,642	2,795,177	2,879,083	2,997,253	3,305,416
Number of Accounts	18,964	18,893	18,873	18,810	18,774
Revenues	\$ 12,149,450	\$ 13,013,723	\$ 13,547,655	\$ 13,806,090	\$ 17,495,713
Plus: Other Departmental Revenues	\$ 913,366	\$ 825,155	\$ 1,025,404	\$ 855,355	\$ 947,686
Less: Adjustments	\$ (308,410)	\$ (441,211)	\$ (79,904)	\$ (88,275)	\$ (120,350)
Total Departmental Revenue	<u>\$ 12,754,406</u>	<u>\$ 13,397,667</u>	<u>\$ 14,493,155</u>	<u>\$ 14,573,170</u>	<u>\$ 18,323,049</u>

Preliminary Capital Improvement Program (CIP)

The Board and the Authority have the responsibility to adopt and implement the CIP for the System. Table 11 presents the CIP for the System for 2014 through 2018. The CIP is updated periodically. The updated CIP as presented herein was reviewed and approved by the Board on June 26, 2014. The amounts presented include an allowance for inflation. The Board plans to review and update the CIP by the end of 2014; thus, all projects and amounts for 2014 through 2018 are preliminary and subject to change.

Table 11 – Capital Improvement Plan (“CIP”)

Description	2014	2015	2016	2017	2018	Total
IT Plan Implementation	70,000	40,000	40,000	30,000	40,000	220,000
Meter Replacement & Upgrades	3,600,000	70,000	70,000	70,000	70,000	3,880,000
Fleet Replacement	260,000	120,000	80,000	90,000	80,000	630,000
Water/sewer GIS/GPS Mapping	5,000	5,000	5,000	5,000	5,000	25,000
WWTP Rehab Phase 3	370,000	5,920,000				6,290,000
WWTP Rehab Phase 4			200,000	2,000,000		2,200,000
WWTP Rehab Phase 5					200,000	200,000
WWTP Roof Repairs				150,000	1,350,000	1,500,000
WWTP/GPS Miscellaneous	344,000	215,000	140,000	140,000	140,000	979,000
WWTP Hypochlorite System Improvements	368,000					368,000
WWTP Flood Damage Recovery	2,781,400					2,781,400
WWTP Structural/masonry Repairs	500,000					500,000
WWTP Effluent Turbidity Study	90,000					90,000
Sanitary Lift Station Electrical Upgrades		70,000	350,000			420,000
Iroquois St. Tunnel Repairs	2,700,000					2,700,000
Sewer Replacements & Repairs	400,000	400,000	325,000	325,000	325,000	1,775,000
LaSalle Area Sewer Improvements (SSO)	740,000	450,000	550,000	460,000	270,000	2,470,000
CSO Long Term Control (LTC) Implementation					10,000	10,000
CSO Outfall Structural Repairs			50,000	3,000,000		3,050,000
Tunnel Inspection			100,000			100,000
Gorge Pumping Station Headworks	140,000					140,000
Gorge Pumping Station Rehabilitation				600,000	3,500,000	4,100,000
WWTP Energy Evaluation by NYPA	2,200,000					2,200,000
Beech Ave. TM Lining	450,000					450,000
Ontario Ave - 13th to 18th Street				350,000		350,000
Military Road Main, between Jacob and Cayuga		210,000				210,000
Bollier Ave, between 82nd and Military		250,000				250,000
S. 86th Bridge WM	64,000					64,000
10th St., Lockport to North		550,000				550,000
Large Valve Replacement	70,000	70,000	70,000	70,000	70,000	350,000
Leak Detection / Distribution Modeling	50,000	50,000				100,000
Hydrant Replacement	80,000	80,000	80,000	80,000	80,000	400,000
Water Miscellaneous Improvements	300,000	170,000	170,000	170,000	170,000	980,000
WTP Vent Line Replacement			53,000			53,000
Abandon 20" Victory Pipe WM	170,000					170,000
Total	15,752,400	8,670,000	2,283,000	7,540,000	6,310,000	40,555,400

The CIP for the Water System is focused primarily on distribution system improvements to enhance overall water quality, system reliability and reduce water loss, including a water main, hydrant and large valve replacement programs. In addition, the meter replacement program has become an important part of reducing the cost of reading meters and replacement of older faulty meters.

The improvements in the Wastewater System represent the larger share of the budgeted funds, with the continued upgrades at the wastewater plant consuming the greatest amount of the planned investments. Investments in pumping stations, tunnels/interceptors and the collection system also will continue.

On a System-wide basis, the CIP includes provisions for the implementation of new technology which is primarily focused on the monitoring and control of water and wastewater facilities. Such technology will enable Board personnel to continue to attempt to operate more efficiently and effectively. The past improvements have allowed for some significant reductions in personnel. While further improvements may provide the opportunity for additional minor staff reductions, the future improvements may allow for more efficient use of utilities, reduce water system loss and overall better system management. Funds are also included each year for the replacement of Board vehicles.

With \$24 million of planned CIP spending in 2014-2015, there will be a significant focus on the Wastewater System. The CIP includes \$ 2.5 million over the five year period for SSO-related improvements in the LaSalle area of the City. Funds for the continued implementation of the Long-Term Control Plan (LTCP) to address CSOs are included in 2014. The most important pumping station for the Wastewater System is the Gorge Pumping Station. The CIP includes funds for a headworks upgrade in 2014 and rehabilitation in 2017/2018. The largest investments provided for in the CIP are for WWTP improvements. The plant improvements will include the flood mitigation measures that were necessary following the July 2013 flooding event at the WWTP. That event resulted in flooding of the influent wet and dry well and caused a considerable amount of damage to pumps and electrical equipment. As a result the on-going WWTP refurbishment work was placed on-hold while emergency measures and permanent repairs were implemented. Once the insurance proceeds from the repairs are received, the WWTP planned improvements (Phase III and IV) will resume in earnest. That work includes continued replacement of carbon filtration mechanical equipment, remaining roof replacements, electrical substation repairs, and sedimentation basin refurbishment.

The CIP includes funds for three specific water distribution main replacement projects, continued replacement of large valves, continued leak detection & distribution system modeling to reduce leakage rates, and funding for unplanned system repairs. The specific areas identified for replacement have been prioritized based on factors such as the history of main breaks, known areas of leakage, the need to upgrade the size or materials of the main and other factors. The

continued implementation of a water main replacement program should, over time, reduce the level of unaccounted-for water in the Water System.

Another major focus of the CIP for 2014 is meter replacement and upgrades. The meters and reading system is in significant need of upgrade. Updated meters will produce more accurate readings in a more efficient manner.

In the opinion of URS Corporation, the CIP is reasonable and will help ensure that quality water and wastewater services are provided to customers in a reliable manner.

Sources and Uses of Funds

Table 12 presents the anticipated sources and uses of funds for the CIP. The amounts shown are preliminary, pending policy decisions of the Board.

Table 12 – Sources and Use of Funds for the CIP

	2014	2015	2016	2017	2018
Opening balance, January 1: Remaining funds restricted for capital projects**	\$ 15,294,991	\$ 7,396,591	\$ 356,591	\$ 9,756,591	\$ 3,806,591
Sources of CIP funds:					
Prior year surplus	3,384,000	1,630,000	2,033,000	1,590,000	2,610,000
Bonded	-	-	9,650,000	-	-
NYS EFC Loan	70,000	-	-	-	-
WWTP Flood Insurance	2,200,000	-	-	-	-
NYPA Loan	2,200,000	-	-	-	-
Use of CIP funds:					
CIP spending (per Table 11)	<u>(15,752,400)</u>	<u>(8,670,000)</u>	<u>(2,283,000)</u>	<u>(7,540,000)</u>	<u>(6,310,000)</u>
Ending balance, December 31	<u>\$ 7,396,591</u>	<u>\$ 356,591</u>	<u>\$ 9,756,591</u>	<u>\$ 3,806,591</u>	<u>\$ 106,591</u>

** The beginning balance represents approximately \$12,000,000 in funding remaining from a settlement agreement with the NYPA and annual contributions from operating funding coverage.

It is anticipated that the cash requirements of the CIP for the 2014-18 period will be met through 1) remaining funds currently on hand with the Board received from the New York Power Authority; 2) remaining funds on hand from cash surpluses from operations of the preceding years; 3) interest on funds on hand whose use is restricted to capital improvements; and, 4) the proceeds of bonded debt to be issued by the Authority. Table 12 assumes that the Board will

utilize bond proceeds beginning in 2017 to continue with the projects designated in the 2017 and 2018 CIP.

Outstanding Debt

The following table summarizes the outstanding bond issues and remaining principal amounts attributable to the System as of December 31, 2013.

Table 13 – Outstanding Debt

Debt Instrument	Principal Balance December 31, 2013
Niagara Falls Public Water Authority Bonds:	
Series 2005 Bonds	\$ 23,115,000
Series 2013A Bonds	36,060,000
Series 2013B Bonds	8,415,000
NYSEFC Water Revolving Funds Revenue Bonds:	
Series 2013B - Clean Water	14,030,000
Series 2013B - Drinking Water	5,580,000
Series 2013B - Drinking Water	6,770,000
Series 2013B - Drinking Water	3,385,000
Series 2004 - Drinking Water	4,095,000
Series 2005 A & B - Clean Water	4,690,000
Series 2012B - Clean Water	6,247,122
Total Amount	\$ 112,387,122

In 2013 the Authority issued the Series 2013A & 2013B Revenue Bonds. Proceeds of the Series 2013 Revenue Bonds were used to refund certain bonds issued by the NFPWA in 2003 as shown in Table 13. The annual principal and interest payments associated with the outstanding debt during the Projection Period are included in the Preliminary Projection of Cash Flows that is shown in Table 16.

Historical Cash Flows and Debt Service Coverage

The Board acquired the System from the City in September 2003. The Board has now completed ten full years as the owner and operator of the System. A summary of the financial performance achieved during the years ending December 31, 2011, December 31, 2012, and December 31, 2013 is provided in Table 14.

Table 14 – Historical Financial Performance

Line	Description	2011	2012	2013
1	Receipts from customers	\$ 23,568,128	\$ 23,948,125	\$ 27,830,613
2	Receipts from Occidental	2,073,094	1,978,359	683,784
3	Interest earnings	679,094	568,405	568,750
4	Proceed from sales of assets	18,594	-	-
5	Total cash receipts	<u>26,338,910</u>	<u>26,494,889</u>	<u>29,083,147</u>
6	Start up expenses	-	-	-
7	Payments to employees	8,952,026	8,816,498	9,588,930
8	Payments to suppliers	<u>7,594,903</u>	<u>8,279,330</u>	<u>7,574,719</u>
9	Total operating expenses	<u>16,546,929</u>	<u>17,095,828</u>	<u>17,163,649</u>
10	Cash available for debt service (line 5 - line 9)	<u>9,791,981</u>	<u>9,399,061</u>	<u>11,919,498</u>
11	Interest payment	4,399,969	4,428,458	4,414,814
12	Principal payment	<u>2,660,000</u>	<u>2,930,000</u>	<u>3,010,000</u>
13	Total debt service	<u>7,059,969</u>	<u>7,358,458</u>	<u>7,424,814</u>
14	Surplus (line 10 - line 13)	<u>\$ 2,732,012</u>	<u>\$ 2,040,603</u>	<u>\$ 4,494,684</u>
15	Debt service coverage (line 10 / line 13)	<u>1.39</u>	<u>1.28</u>	<u>1.61</u>

The preceding table has been prepared based on information presented in the annual financial statements of the Board. The financial statements of the Board for the years ended December 31, 2013, December 31, 2012 and December 31, 2011 were audited by the firm of Toski & Co., P.C., Certified Public Accountants.

Total cash collections from customer billings include payments related to current billings as well as arrears payments.

Water sales have steadily increased over the past few years. In 2011, 2012 and 2013 were approximately 3.1%, 4.2% and 7.9% higher, respectively, compared to usage in the prior year.

The industrial increase beginning in 2011 is the result of new industrial users that reverses a trend of many years of decline in industrial sales. The residential decline continues a long standing trend which is caused by many factors including loss of population and improvements in home appliances that reduce water usage.

Interest earnings on the funds of the Board in 2012, 2013 and year-to-date in 2014 were lower than previously expected due to the effects of lower interest rates on investments that were available in financial markets.

The results for the year ending December 31, 2011 indicate that the actual debt service coverage achieved by the Board was 139%, exceeding the minimum requirement of 115% of debt service. The results for the year ending December 31, 2012 indicate that the actual debt service coverage achieved by the Board was 128%, again exceeding the minimum requirement of 115% of debt service. The results for the year ending December 31, 2013 indicate that the actual debt service coverage achieved by the Board was 161%, also exceeding the minimum requirement of 115% of debt service.

In January 2008 the Board reached a settlement in the collective bargaining agreements with all four of its labor unions. The agreements, which expired on December 31, 2010, create a second tier benefit package for employees hired after January 2008. This new tier has provided significant savings to the Board as new employees replace outgoing retirees. The package includes a more modest health care plan with a 20% employee contribution, a halving of paid sick and holidays, and a new paid time-off plan. Over one-half of Board employees are eligible for retirement within the next 5 years. Contract talks with collective bargaining units are ongoing.

In 2010 a New York State Retirement Incentive Program offered by the Board under Part A of Chapter 105, Laws of 2010 of the State of New York identified and targeted certain Board employees. The incentive provided one additional month of service credit for each year of credited service an eligible member has at retirement. The maximum additional incentive service credit was three years. In order to offer such incentive the Board would be required to provide the retirement system with certain payments for each individual who accepted the incentive.

The Board analyzed the potential financial and staffing resourcing effects and determined that offering such incentive would provide net positive effects. 15 Board employees accepted the incentive and retired prior to the incentive deadline of December 31, 2010. The first year savings from this retirement incentive approximated \$190,000, with additional annual savings to be ongoing.

Billing and Collection

All but a limited number of water and sewer customers are billed quarterly based on actual or estimated meter reads. Significant industrial users are billed monthly based on two estimated months followed by an actual meter read in the third month.

Customers of the Board can pay their water and sewer bills either to a lockbox held by First Niagara Bank or to the City of Niagara Falls Billing and Collection Department at City Hall. All revenues, including those collected by the City, are put immediately into the Board's depository account of the Local Water Fund. The City collects on delinquent accounts and, in particular, any unpaid balances that remain as of November 1 of each year create a lien on the property and are added to the next year's City tax bill. These liens then become due and payable with the tax collection. The City collects the funds, reconciles the tax roll and water/sewer liens and disburses a check to the Board in July and the following January for the two collection periods. These amounts are reconciled to the Board's records for verification of the receipts.

In 2012, the Board tested a pilot program for electronic meter reading. Based on successful results, the Board intends to convert all water and sewer meters to electronic read only devices over the next 2 - 3 years. The Board has made meter replacement a major priority, since it last replaced meters in 1990 and the life expectancy of the old style meters averages just 10 years. The advantages of electronic meter reading include having a real-time measure of actual use, taking a fraction of the time, eliminating the need to access a customer's property, minimizing worker's compensation injuries from weather conditions or animals, and detecting continuous water leaks. The use of electronic meters during the pilot program resulted in a 5-7% increase in revenues, and the Board expects similar results moving forward.

Table 15 – Water and Sewer Billings and Cash Collections – Historical

<u>FYE 12/31</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Service Billings	\$ 20,693,572	\$ 22,557,758	\$ 22,071,359	\$ 23,111,514	\$ 27,818,924
Penalties	678,887	521,650	387,701	500,826	697,243
Invoice Adjustments	<u>(656,847)</u>	<u>326,408</u>	<u>111,090</u>	<u>1,086,332</u>	<u>408,626</u>
Total Billed	\$ 20,715,612	\$ 23,405,816	\$ 22,570,150	\$ 24,698,672	\$ 28,924,793
Total Cash Collections - Billings	20,442,257	21,068,369	21,694,561	22,652,072	25,830,623
Total Cash Collections - Property Tax Bill	<u>1,131,853</u>	<u>902,500</u>	<u>660,271</u>	<u>964,139</u>	<u>948,146</u>
Total Collections	\$ 21,574,110	\$ 21,970,869	\$ 22,354,832	\$ 23,616,211	\$ 26,778,769
% of Total Cash Collections to Total Billed	104.1%	93.9%	99.0%	95.6%	92.6%

Compliance with Reserve Fund Requirements

Under the terms of the Financing Agreement between the Board and the Authority, the Board is required to maintain minimum balances in reserve funds relating to its operating expenses and debt service. The amounts on deposit in the Operation and Maintenance Reserve Fund must equal or exceed two months' of the anticipated operation and maintenance expenses in the upcoming year. The amounts on deposit in the Debt Service Reserve Fund must equal or exceed the maximum annual debt service in any future year. The amounts on deposit in the Board's Operation and Maintenance Reserve Fund and Debt Service Reserve Fund as of December 31, 2013 are in compliance with the requirements of the Financing Agreement. The Board expects to continue to be in compliance with these requirements during 2014.

Projected Cash Flows and Rates

The preliminary projection of cash flows of the System is presented in Table 16. These projections are preliminary and subject to change. The future cash flows of the Board are dependent upon many factors, including economic conditions and Board policy decisions regarding the size, scope and timing of the CIP; the use of the remaining monies from the NYPA settlement and potential reductions in annual operation and maintenance expenses. Future increases in rates and revenues are also dependent upon actual experience and assumptions for regarding customer demand as well as other factors. The achievement of any projection of future conditions is dependent upon the occurrence of other future events and circumstances such as changes in the local and national economy, demographic changes, variations in interest rates and inflation, new regulatory agency initiatives and other factors that cannot be predicted. Therefore, the actual financial requirements and performance of the System may vary from the estimates presented herein, and such variations could be material.

The year-to-date cash receipts through May 31, 2014 are favorable with those of the prior year which appears to be attributed to slight increases in water sales related to residential users, and some larger increases attributed to industrial users. However, there is insufficient data to reach any conclusions regarding usage trends for the year.

The projected cash flows in 2014 through 2018 assume that the Board will enact increases in water and wastewater rates and charges of an average of 2.6% in 2014, 1% in 2015, 1% in 2016, 1% in 2017 and 1% in 2018. The projection indicates that under the conditions reflected herein, the System will generate operating revenues of approximately \$31.3 million in 2014, increasing to approximately \$32.5 million in 2018.

Taking into consideration non-operating revenues, total revenues available for debt service and expenses are projected to be \$13.4 million in 2014, decreasing to \$10.9 million in 2018. These projections are preliminary and subject to change. The projected increase in user payments reflects the assumption that water consumption by customers will remain stable throughout the projection period. However, if such projections in water sales are not achieved, then the Board will have to increase water and sewer rates at a pace that is greater than assumed and/or decrease expenses in order to achieve the debt service coverage requirement.

The Board is evaluating alternative strategies to enhance revenues including potential long-term agreements with customers and initiatives to attract greater quantities of hauled waste that would be transported to the WWTP for treatment and disposal. The preliminary projections contained in this Report do not take into consideration the potential effects on revenues or expenses of such efforts.

On a preliminary basis, operating expenses are projected to increase from approximately \$17.9 million in 2014 to \$21.6 million in 2018. Operating expenses in 2014 through 2018 are expected to increase with inflation, with the exception of employee benefits and chemicals which are projected using historical increases actually realized in the past five years (and which have increased at rates significantly higher than inflation). However, a portion of the inflationary increase is assumed to be offset by salary and benefit reductions attributable to reductions in the number of personnel as well as savings in non-labor costs through the implementation of the Competitiveness Program.

The projected debt service includes principal and interest payments on outstanding bonds as well as anticipated future bonds of the Authority. It is presently anticipated that the Authority will issue \$9.65 million in additional debt in 2016, with the first interest and principal payments on such debt occurring in 2017. These amounts and the timing of the potential issuance of debt are subject to change based on policy decisions by the Board. The proceeds of such bonds or notes will be used to pay a portion of the costs associated with the CIP. The preceding amounts include an allowance for deposits to the Debt Service Reserve Fund and the costs of issuance. The projected debt service assumes that the anticipated future bonds will have a 30-year term at an average interest rate of 5.0% and level principal and interest payments.

In 2012, pursuant to its agreement with the City, the Board is obligated to make annual payments in lieu of taxes to the City. The projected amount to be paid from 2014 through 2018 is \$700,000 per year.

The debt service coverage ratios in Table 16 are based on total revenues available for expenses and debt service minus Operating Expenses divided by Total Debt Service. It is projected that debt service coverage will be equal to, or greater than, the minimum requirement of 1.15 throughout the Projection Period. All projections are presented on a preliminary basis and are subject to change. This conclusion assumes the following: the Board adopts the projected rate increases described above, expenses are maintained at or below projected levels, and the future declines in customer usage are consistent with the assumed rate of decline. As noted earlier, the actual financial requirements and performance of the System may vary from the estimates presented herein, and such variations could be material. With regard to the figures presented in Table 16, the preliminary projections show that debt service coverage is maintained at approximately the minimum levels required by the Bond Resolution. Drescher & Malecki LLP recommends that the Board consider taking the actions necessary such that the debt service coverage and surplus exceed the minimum requirement of 1.15 throughout the Projection Period so that if adverse changes occur (e.g., a greater than assumed decline in customer usage), the Board will have some flexibility to address such changes.

Table 16 – Preliminary Projections of Cash Flows and Rates

Line		2014	2015	2016	2017	2018
	Revenues					
1	Water and wastewater user payments	30,871,409	31,172,989	31,477,585	31,785,227	32,095,945
2	Interest earnings	511,875	511,875	511,875	511,875	511,875
3	Occidental payment	-	-	-	-	-
4	Total	31,383,284	31,684,864	31,989,460	32,297,102	32,607,820
	Operations and Maintenance Expenses					
5	Salaries and benefits	10,451,268	11,214,019	11,991,976	12,722,344	13,390,085
6	Chemicals / sludge	2,630,614	2,722,686	2,804,367	2,874,476	2,931,965
7	City services	100,000	100,000	100,000	100,000	100,000
8	Insurance / safety	412,698	427,143	439,957	450,956	459,975
9	Maintenance	982,093	1,016,466	1,046,960	1,073,134	1,094,597
10	Utilities	1,609,345	1,549,922	1,599,892	1,642,783	1,677,954
11	Other expenses	1,011,544	1,046,948	1,078,357	1,105,316	1,127,422
12	Authority / Board expenses	732,187	757,813	780,548	800,062	816,063
13	Total	17,929,750	18,834,998	19,842,056	20,769,070	21,598,061
14	Revenues available for debt service	13,453,534	12,849,866	12,147,404	11,528,032	11,009,759
	Debt Service					
15	Debt service on outstanding bonds	7,707,079	7,848,823	7,794,833	7,789,411	7,821,546
16	Debt service on NYPA energy loan	-	230,887	230,887	230,887	230,887
17	Debt service on future Authority bonds	-	-	-	622,000	622,000
18	Total	7,707,079	8,079,710	8,025,720	8,642,298	8,674,433
19	PILOT payment to City	700,000	700,000	700,000	700,000	700,000
20	Surplus (line 14 - line 18 - line 19)	5,046,455	4,070,156	3,421,684	2,185,734	1,635,326
21	Debt Service Coverage	1.75	1.59	1.51	1.33	1.27
	Rate Increase	2.6%	1.0%	1.0%	1.0%	1.0%

Notes:

- 1) Projected cash flow and rates above are subject to change.

Water Sales by Customer Class

Table 17 illustrates the water consumption by customer class for each of the last four years.

Table 17 – Water Consumption by Customer Class

	2010	2011	2012	2013
District 1 - Residential				
1st billing	112,319	100,622	107,441	97,623
2nd billing	123,574	112,303	100,084	106,943
3rd billing	118,964	98,547	107,303	108,124
4th billing	135,030	122,838	121,971	109,194
Total	<u>489,887</u>	<u>434,310</u>	<u>436,799</u>	<u>421,884</u>
District 2 - Residential				
1st billing	140,746	132,527	121,780	121,268
2nd billing	121,547	128,567	120,228	122,961
3rd billing	155,795	131,269	145,869	128,565
4th billing	138,602	139,052	144,524	139,003
Total	<u>556,690</u>	<u>531,415</u>	<u>532,401</u>	<u>511,797</u>
District 3 - Residential				
1st billing	92,321	92,799	82,469	87,914
2nd billing	90,540	82,987	89,886	86,320
3rd billing	103,323	104,398	103,755	102,190
4th billing	90,569	83,370	99,500	121,422
Total	<u>376,753</u>	<u>363,554</u>	<u>375,610</u>	<u>397,846</u>
District - Industrial				
1st billing	149,038	174,884	184,688	167,364
2nd billing	123,392	141,130	147,461	147,064
3rd billing	163,025	162,195	173,315	192,283
4th billing	244,715	247,722	274,829	265,180
Total	<u>680,170</u>	<u>725,931</u>	<u>780,293</u>	<u>771,891</u>
District - SIU				
1st billing	161,720	168,159	181,210	254,342
2nd billing	192,746	165,389	181,807	297,298
3rd billing	163,554	170,260	225,024	257,648
4th billing	168,159	316,484	280,904	314,687
Total	<u>686,179</u>	<u>820,292</u>	<u>868,945</u>	<u>1,123,975</u>
District - NR				
1st billing	1,350	1,463	1,620	3,077
2nd billing	1,315	1,919	1,813	3,047
3rd billing	1,350	1,608	2,223	2,664
4th billing	1,463	1,734	2,843	2,664
Total	<u>5,478</u>	<u>6,724</u>	<u>8,499</u>	<u>11,452</u>
Grand Total ccf	2,795,157	2,882,226	3,002,547	3,238,845
% Change from Prior Year	-9.79%	3.11%	4.17%	7.87%

In 2007 through 2010, annual water consumption decreased by approximately 1.2%, 5.5%, 13.4%, and 9.8%, respectively. Part of the decline in 2007 and 2008 was attributable to the closure of Ferro Industries. The majority of the decline in 2009 was due to a change in water use by one large industrial user; instead of relying on water from the Board, the industry now draws water for its industrial processes from alternate sources. The industry is still a wastewater customer of the Board. The facilities of the former Ferro Industries (which contributed to the reductions in water demand in 2007 and 2008) resumed operation in 2010 as Tam Ceramics, thereby resuming water use and contributing to the increase realized in 2011.

As illustrated by Table 17, water consumption in 2011, 2012, and 2013 increased by 3.11%, 4.17%, and 7.87%, respectively. Additionally, during 2011, the Board entered into an agreement for the sale of water and treatment of wastewater with Greenpac Mill LLC. Under this agreement the Board is guaranteed significant minimum usage for both water and wastewater services. Additional water sales and wastewater services to Greenpac Mill LLC commenced in mid 2013. Other industrial projects that are currently underway are also anticipated to positively affect water consumption.

The Board’s CIP also contains significant funding through 2015 for a major meter replacement program. This program is anticipated to also have a positive impact upon billed water consumption.

The ten largest water customers and wastewater customers are listed in Table 17A below.

Table 17A – Ten Largest Water and Wastewater Customers

	Name	12/31/2013 Revenue	% of Total	4/30/2014 YTD Revenue
1	Norampac Industries #50	\$ 4,181,784	30.99%	\$ 1,713,957
2	E. I. DuPont #7	3,096,084	22.95%	782,038
3	Occidental Chemical #22	1,219,203	9.04%	403,198
4	Seneca Niagara Hotel	850,537	6.30%	221,437
5	Covanta #32	802,228	5.95%	271,246
6	TAM Ceramics	698,743	5.18%	337,236
7	Niacet Corporation #17	694,590	5.15%	236,769
8	Seneca Niagara Casino	693,587	5.14%	164,966
9	Allied Waste Systems #67	670,690	4.97%	177,357
10	Goodyear Tire & Rubber Co.	585,077	4.34%	236,703
		<u>\$ 13,492,523</u>	100.00%	<u>\$ 4,544,907</u>

Rates for Water Service and Wastewater Service

The rates for water service and wastewater service in 2014 increased 2.6% for both customers within and outside the City. The Board provides wastewater service to Town of Niagara customers outside of the City. The Board is no longer negotiating with the Town of Niagara to continue to take wastewater from the Town customers; instead the Board is establishing a new ODMBR (Out of District Municipal Bulk Rate) user class. In addition, the Board is aggressively pursuing water theft and the potential under-recording of water use to ensure that every customer pays their fair share. This includes timely investigation of low or zero meter readings and meter replacement scheduled to occur in 2014 and 2015. Water and wastewater rates for 2014 and 2013 are provided in the financial statements of the Board for the year ended December 31, 2013 and are not repeated here. The consumption-related water rates of the Board for 2014 are shown in Table 17B below. Historical rate increases for water and wastewater customers are presented in Table 18 that follows.

Table 17B – 2014 Rates for Water Customers

	Inside City (\$/ccf)	Outside City (\$/ccf)
First 20,000 CF	3.13	8.37
Next 60,000 CF	2.71	7.31
Next 120,000 CF	2.30	6.09
> 200,000 CF	1.91	5.12

Table 18 –Historical Percentage Increases in Rates for Water and Wastewater Customers

2007	2008	2009	2010	2011	2012	2013	2014
5.6%	4.9%	0.0%	2.0%	0.0%	1.0%	6.0%	2.6%

The rate structure for sewer service consolidates all consumers into two classes: Significant Industrial Users (SIU), and Commercial, Small Industrial, and Residential Users (CSIRU). The user charge system includes ten Substance of Concern charges that are assessed exclusively within the SIU class.

The 2014 wastewater user charges for the CSIRU class of customers are summarized in Table 19.

Table 19 – 2014 Wastewater Rates for CSIRU Customers

<u>Minimum Charge</u>	<u>Volume Charge</u>
All meter sizes and flow up to 1,300 cf \$53.95	Usage in excess of 1,300 cf per quarter (per 100 cf) \$4.15

Three of the wastewater user charges for the SIU class of customers in 2014 are summarized in Table 20.

Table 20 – 2014 Wastewater Rates & Charges for SIU Customers

Flow Charge (\$/MG)	Solids Charge (\$/lb)	SOC Charge (\$/lb)
2,913	0.94	1.62

Interest Earnings

The System will earn interest on the funds maintained by the Board and the Authority. Based on the anticipated balances in each fund and the current investment rates, Table 21 presents the estimated interest earnings for 2014.

Table 21 – Estimated Interest Earnings - 2014

Fund	Average End of Month Balance	Interest Earnings Rate	Estimated Annual Earnings
Debt Service restricted cash	\$ 16,000,000	Varies	\$ 400,000
Capital Project restricted cash	15,000,000	0.00-0.10%	3,250
Operating cash	14,500,000	0.15%	<u>21,750</u>
			<u><u>\$ 425,000</u></u>

Interest earnings rates have been declining for the past several years and are much lower than historical rates. This situation is affecting the revenue of water utilities across the country.

System Operating Expenses

The System’s expenses include the costs associated with the operation, maintenance and administration of the water treatment facilities and distribution system, as well as the costs associated with the operations of the wastewater collection and treatment facilities and

stormwater facilities. The principal components of operating expenses other than labor as projected for 2014 are shown in Table 22.

Table 22 – Major Components of Expenses Other Than Labor - 2014

Item	Amount
Chemicals	\$ 2,419,500
Utilities	1,752,400
Maintenance	1,069,620
Sludge Disposal / Removal	350,000
Insurance / Claims	400,315

Chemicals are used in both the water treatment and the wastewater treatment processes although the majority of the cost of chemicals is wastewater related. The System receives low cost hydroelectric power from the New York Power Authority which significantly reduces its electrical costs relative to market rates. The Board will be proactively seeking opportunities to further reduce such costs. Other expenses are assumed to be affected by inflation as well as the results of cost saving initiatives of the Board during the projection period. The assumed increase due to inflation is 3% per year. The annual savings due to changes in business processes are expected to somewhat offset the cost increases due to inflation during the projection period.

The total operating expenses of the Board in 2011, 2012 and 2013 were approximately \$22.9, \$24.3 and \$24.5 million, respectively.

The Board completed a competitive assessment of its operations and initiated the implementation of significant operational changes to improve the efficiency and effectiveness of its operations. Some cost savings from these initiatives were realized in 2009 through 2012; additional savings anticipated to be ongoing in subsequent years.

ECONOMIC AND DEMOGRAPHIC DATA

The following information was provided by other sources and provides updated information regarding the Board’s Service Area. Since the Service Area consists primarily of the City of Niagara Falls, the information is limited to that portion of the Service Area that is within the boundaries of the City.

Major Employers in Niagara Falls Area

City / County	Employer	Employees
County	Niagara Falls Air Reserve Station	2787
City	Seneca Niagara Casino and Hotel	2715
County	Niagara County	1554
County	Fashion Outlets of Niagara	1434
County	GM Components Holdings	1400
City	Niagara Falls City School District	1263
City	Praxair Inc.	1200
City	Niagara Falls Memorial Medical Center	1004
County	St. Gobain Ceramics and Plastics	884
County	Niagara County Community College	713
City	Mount St. Mary's Hospital	700
City	City of Niagara Falls	680

Source: Niagara County Center for Economic Development

Population

Changes in the City’s population compared to changes in the population of the County, the State and the United States are as follows:

	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>% of Change</u> <u>1990-2000</u>	<u>% of Change</u> <u>2000-2010</u>
City	61,840	55,593	50,193	-10.10%	-9.71%
County	220,756	219,846	216,469	-0.41%	-1.54%
State	17,990,455	18,876,457	19,378,102	4.92%	2.66%
United States	248,709,873	281,421,906	308,745,338	13.15%	9.71%

Source: United States Bureau of the Census

Civilian Labor Force – Annual Average (thousands)

	2009	2010	2011	2012	2013
City	585.5	578.0	573.4	573.3	573.2
County	113.3	112.0	111.6	110.5	111.2
State	9,640.6	9,586.9	9,504.2	9,621.0	9,636.0

Source: New York State Department of Labor, Bureau of Labor Statistics, Information not seasonally adjusted (note that “City” refers to the Buffalo-Niagara, NY Metropolitan Statistical Area).

Yearly Average Unemployment Rates

Year	City	County	State
2009	11.2%	9.4%	8.4%
2010	11.5%	9.2%	8.6%
2011	10.6%	8.4%	8.2%
2012	11.4%	9.0%	8.5%
2013	10.0%	8.0%	7.7%

Source: New York State Department of Labor, Bureau of Labor Statistics, Information not seasonally adjusted (note that “City” refers to the Buffalo-Niagara, NY Metropolitan Statistical Area).

Monthly Unemployment Rates

Month	City	County	State
January, 2014	9.9%	8.3%	7.3%
February	10.5%	8.7%	7.7%
March	9.8%	8.1%	7.2%
April	8.2%	6.5%	6.1%
May	8.2%	6.2%	6.4%

Source: New York State Department of Labor, Bureau of Labor Statistics, Information not seasonally adjusted (note that “City” refers to the Buffalo-Niagara, NY Metropolitan Statistical Area).

Comparative Housing, Income and Population Data

	City	State	U.S.
Age Distribution:			
% under 5 years	5.3	6.0	6.5
% 20 to 64	59.6	61.2	60.0
% 65 and over	15.7	13.5	13.1
Median age	47.6	38.0	37.2
Person / Household	2.33	2.57	2.58
Housing:			
% owner occupied housing units	65.6	54.5	65.4
Median value housing (\$)	120,700	296,500	179,900
Median gross rent (\$)	672	1,020	855
% housing built 1990 - 2000	7.0	6.0	13.9
% housing built before 1939	33.2	33.1	13.7
% with 5 or more units in structure	14.1	34.9	24.5
Income:			
Per capita income (\$)	25,178	30,011	26,059
Median family income (\$)	46,420	54,148	50,046
% below poverty level	14.4	14.9	15.3

Source: *Census of Population and Housing, U.S. Department of Commerce, Bureau of Census (note that "City" refers only to Niagara Falls)*