

City of Duluth



**Public Works & Utilities Department
2013 Annual Report**

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Front cover photo:

In 2013, the City of Duluth won "The Best in Glass" trophy for the best tasting drinking water in Minnesota. Photo provided by Mark Proulx, Water Plant Supervisor

OFFICERS OF THE DEPARTMENT

Mayor	.....	Don Ness
Chief Administrative Officer	.....	Dave Montgomery

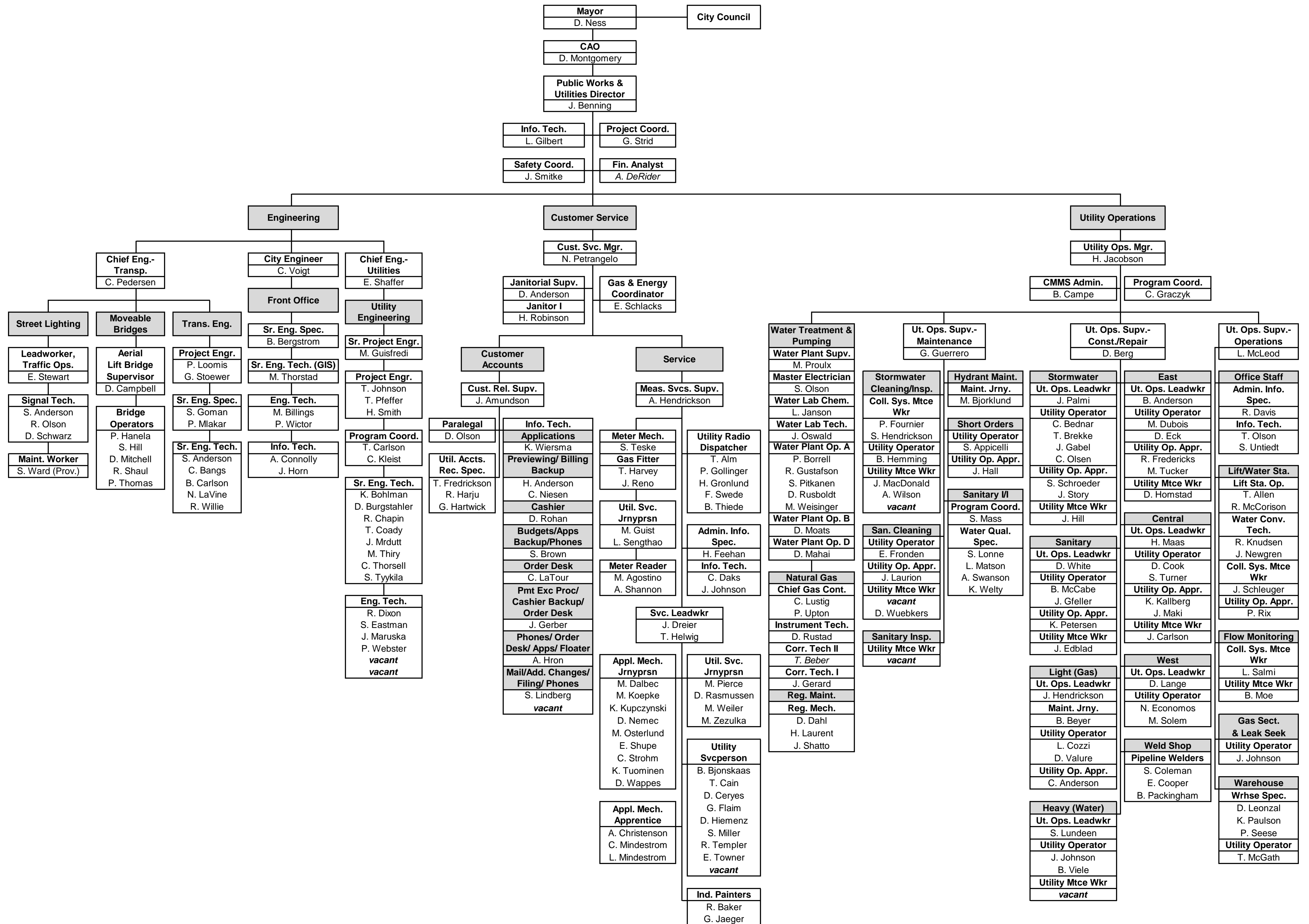
City Council Public Works & Utilities Committee
 Councilor Jennifer Julsrud

Duluth Public Utilities Commission	
Linda Sellner, President	Councilor Sharla Gardner
Robert Prusak, Vice President	Councilor Jennifer Julsrud
Jim Ramnes	Councilor Jim Stauber
Jason Thorsell	

DEPARTMENT OF PUBLIC WORKS & UTILITIES

Director	.....	Jim Benning
City Engineer	.....	Cindy Voigt
Chief Engineer, Transportation	.....	Cari Pedersen
Chief Engineer, Utilities	.....	Eric Shaffer
Manager, Customer Service	.....	Nick Petrangelo
Manager, Utility Operations	.....	Howard Jacobson
Financial Analyst	Ken Taylor

CITY OF DULUTH PUBLIC WORKS & UTILITIES DEPARTMENT 2013



**W
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**Water Utility
Statement of Net Income
For The Year Ended December 31, 2012 and 2013
(Unaudited)**

	2012	2013
<u>Operating Revenue</u>		
Metered Water Sales	\$ 13,644,510	\$ 14,584,794
Other	267,107	293,586
Total Operating Revenue	\$ 13,911,617	\$ 14,878,380
<u>Operating Expense</u>		
Director's Office	74,060	67,642
Capital Related Expenses	1,524,690	1,685,956
Utility General Expense	1,652,876	1,493,606
Engineering	409,257	327,559
Utility Operations	2,799,327	3,179,626
Water Treatment and Pumping	2,709,544	2,806,076
Customer Service	1,215,140	1,410,496
Total Operating Expense	(10,384,894)	(10,970,961)
Operating Income	3,526,723	3,907,419
<u>Other Revenue</u>		
Grants Non-Capital	0	5,252
Contributed Capital	20,352	55,786
Gain or Loss on the Sale of Fixed Assets	1,273	0
Transfer from Other Funds		
Street Lighting	10,660	10,660
Intergovernmental	16,919	16,919
Interest Income	16,894	13,910
Total Other Revenue	66,098	102,527
<u>Other Expenses and Transfers</u>		
Transfer to Other Funds		
Investing Activities	7,637	22,826
Non-Capital Improvements	238,758	246,644
Interest on Long Term Debt	296,162	274,206
Total Other Expenses and Transfers	(542,557)	(543,676)
Net Income or Loss	\$ 3,050,264	\$ 3,466,270

**Water Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)**

	Assets & Deferred Outflows	
	2012	2013
<u>Current Assets</u>		
Cash	\$ 800,187	\$ 1,021,940
Restricted Cash and Equivalents:		
Minnesota Water Connection Fees	89,300	89,202
Accounts Receivable (Net)	1,381,982	1,478,553
Special Assessments	67,420	57,129
Due from Other Funds	36,306	2,726
Due from Other Governments	266,503	52,852
Inventory	924,050	892,596
Prepays		31,831
Total Current Assets	\$ 3,565,748	\$ 3,626,829
<u>Utility Plant</u>		
In Service	75,675,262	80,661,063
Construction	5,217,177	3,766,564
Less Accumulated Depreciation	(32,375,012)	(33,824,461)
Total Utility Plant Assets	48,517,427	50,603,166
<u>Other Assets</u>		
Special Assessments Receivable	107,491	99,826
Issuance Costs	48,143	0
Total Other Assets	155,634	99,826
Total Assets	52,238,809	54,329,821
<u>Deferred Outflows</u>		
Deferred Loss from Debt Refunding	0	37,320
Total Deferred Outflows	0	37,320
Total Assets and Deferred Outflows	\$ 52,238,809	\$ 54,367,141

Water Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)

	Liabilities & Net Assets	
	2012	2013
<u>Current Liabilities</u>		
Accounts Payable	\$ 200,235	\$ 196,826
Contracts Payable	249,677	158,293
Notes Payable	794,887	783,680
Leases Payable	196,258	203,767
Due to Other Funds	326,950	113,069
Due to Other Governments	191,630	136,831
Accrued Interest Payable	116,763	106,035
Accrued Salaries Payable	164,293	212,463
Vacations Payable	241,821	242,875
Deferred Revenue	59,675	113,143
Customer Deposits	10,000	10,000
Bonds Payable	427,028	433,873
Total Current Liabilities (Payable from Current Assets)	\$ 2,979,217	\$ 2,710,855
<u>Long Term Liabilities</u>		
Notes Payable	6,357,429	5,944,908
Vacations Payable	19,388	0
Leases Payable	2,573,703	2,369,936
Net Other Post Employment Benefits	394,357	406,608
Bonds Payable	2,488,544	2,054,671
Less Unamortized Bond Discount or Premium	7,879	43,744
Total Long Term Liabilities	11,841,300	10,819,867
Total Liabilities	14,820,517	13,530,722
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	35,719,842	38,805,907
Unrestricted	1,698,450	2,030,512
Total Net Assets	37,418,292	40,836,419
Total Liabilities and Net Assets	\$ 52,238,809	\$ 54,367,141

City of Duluth
Water Utility Bonds, Notes and Capital Leases Payable
December 31, 2013

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2012</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2013</u>
Water Utility								
Bonds								
Revenue and General Obligation	1,120,000	12/19/2006	2/1/2022	820,000	0	0	70,000	750,000
Revenue and General Obligation Refunding	950,000	12/13/2007	2/1/2016	515,000	0	0	120,000	395,000
Revenue and General Obligation	196,000	2/19/2009	2/1/2024	164,000	0	0	12,000	152,000
Revenue and General Obligation Refunding	1,625,000	11/23/2010	2/1/2018	1,416,572	0	0	225,028	1,191,544
Bond Total				\$ 2,915,572	\$ 0	\$ 0	\$ 427,028	\$ 2,488,544
Notes								
Public Facilities Authority	\$ 870,000	8/25/2003	8/20/2018	\$ 398,227	\$ 0	\$ 0	\$ 61,887	\$ 336,340
Public Facilities Authority	1,971,532	7/2/2004	8/20/2018	891,000	0	0	139,000	752,000
Public Facilities Authority	1,668,813	10/28/2009	8/20/2019	1,179,363	0	0	163,363	1,016,000
Public Facilities Authority	1,371,653	8/31/2010	8/20/2025	1,019,914	0	0	86,000	933,914
Public Facilities Authority	3,344,131	8/31/2010	8/20/2025	2,981,548	0	29,318	217,866	2,793,000
Public Facilities Authority	1,605,655	11/18/2011	8/20/2026	682,264	0	325,070	110,000	897,334
Note Total				\$ 7,152,316	\$ 0	\$ 354,388	\$ 778,116	\$ 6,728,588
Capital Leases								
AMR System	\$ 3,443,490	7/12/2007	2/1/2024	\$ 2,769,962	\$ 0	\$ 0	\$ 196,259	\$ 2,573,703
Capital Lease Total				\$ 2,769,962	\$ 0	\$ 0	\$ 196,259	\$ 2,573,703
Total Water Utility Bonds, Notes and Capital Leases				\$ 12,837,850	\$ 0	\$ 354,388	\$ 1,401,403	\$ 11,790,835

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2014	\$ 1,421,320	\$ 262,295	\$ 1,683,615
2015	1,459,288	237,909	1,697,197
2016	1,490,021	204,424	1,694,445
2017	1,383,596	171,545	1,555,141
2018	1,417,493	139,218	1,556,711
2019	955,846	109,760	1,065,606
2020	801,251	89,409	890,660
2021	822,017	70,228	892,245
2022	837,157	50,428	887,585
2023	758,683	32,096	790,779
2024	624,915	15,262	640,177
2025	468,000	6,834	474,834
2026	118,000	1,441	119,441
	\$ 12,557,587	\$ 1,390,849	\$ 13,948,436

Water Fund
Schedule of Fixed Assets
Year Ending December 31, 2013

	<u>Balance Dec.</u> <u>31, 2012</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec.</u> <u>31, 2013</u>	<u>Accumulated</u> <u>Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 203,700	\$ 0	\$ 0	\$ 203,700	\$ 0	\$ 203,700
Infrastructure	45,307,157	4,885,307	0	50,192,464	16,284,117	33,908,347
Buildings and Structures	22,338,952	0	0	22,338,952	12,728,975	9,609,977
Equipment and Tools	7,825,453	227,462	126,968	7,925,947	4,811,369	3,114,578
Work in Progress	<u>5,217,177</u>	<u>3,458,708</u>	<u>4,909,321</u>	<u>3,766,564</u>	<u>0</u>	<u>3,766,564</u>
Total	<u>\$ 80,892,439</u>	<u>\$ 8,571,477</u>	<u>\$ 5,036,289</u>	<u>\$ 84,427,627</u>	<u>\$ 33,824,461</u>	<u>\$ 50,603,166</u>

COMPARATIVE STATEMENT, OPERATING EXPENSE OF ALL STATIONS, YEARS 2012 AND 2013

Station	Year	Daily Average Gallons Pumped, Initial Supply	Gallons Pumped	K.W.H. Consumed	Electricity
Lakewood	2013	14,261,753	5,205,540,000	8,484,000	\$ 635,861
	2012	15,391,890	5,618,040,000	8,911,350	\$ 635,142
Middle	2013	2,438,490	890,049,000	1,194,800	\$ 103,905
	2012	3,290,684	1,201,100,000	1,232,400	\$ 104,881
Woodland	2013	1,416,082	516,870,000	1,606,200	\$ 140,246
	2012	1,619,205	591,010,000	1,629,600	\$ 137,551
West Duluth	2013	6,328,605	2,309,941,000	491,328	\$ 45,156
	2012	7,017,934	2,561,546,000	551,232	\$ 47,189
Orphanage	2013	314,569	114,818,000	78,400	\$ 8,502
	2012	303,750	110,869,000	85,440	\$ 8,618
Highland	2013	1,258,980	459,528,000	464,256	\$ 43,763
	2012	1,273,120	464,689,000	439,488	\$ 41,943
Arlington	2013	1,254,260	457,805,000	693,120	\$ 64,644
	2012	1,293,909	472,277,000	685,632	\$ 61,768
Lakeside	2013	120,816	44,098,000	68,160	\$ 10,191
	2012	160,241	58,488,000	68,400	\$ 10,362
Bay View	2013	419,347	153,062,000	229,760	\$ 25,455
	2012	437,969	159,859,000	235,200	\$ 25,952
Proctor	2013	403,920	147,431,000	215,040	\$ 24,902
	2012	390,780	142,635,000	211,840	\$ 24,044
Airport	2013	0	unmetered	2304	\$ 1,133
	2012	0	unmetered	1920	\$ 560
TOTALS	2013	28,216,822	10,299,142,000	13,527,368	\$ 1,103,758
	2012	31,179,482	11,380,513,000	14,052,502	\$ 1,098,010

WATER PLANT STATISTICS

	2013	2012	2011	2010	2009	2008	2007
Water Pumped							
Million Cubic Feet	695.88	751.1	739.8	773.2	829.1	826	846
Water Sold							
Million Cubic Feet	605.95	644.4	592.6	665.7	658	601	746
General & Distribution Operating							
Costs including Maintenance (*)	\$ 9,394,544	\$ 8,897,762	\$ 9,395,019	\$ 9,275,099	\$ 9,250,685	\$ 9,930,687	\$ 9,545,839
Cost per 100 Cubic Feet	\$ 1.5504	\$ 1.3808	\$ 1.5854	\$ 1.3933	\$ 1.4059	\$ 1.6524	\$ 1.2796
Interest charges	\$ 274,206	\$ 296,162	\$ 297,135	\$ 304,164	\$ 297,249	\$ 240,761	\$ 305,579
Cost per 100 Cubic Feet	\$ 0.0453	\$ 0.0460	\$ 0.0501	\$ 0.0457	\$ 0.0452	\$ 0.0401	\$ 0.0410
Depreciation charge	\$ 1,576,417	\$ 1,487,132	\$ 1,414,602	\$ 1,414,807	\$ 1,252,343	\$ 1,157,899	\$ 1,184,485
Cost per 100 Cubic Feet	\$ 0.2602	\$ 0.2308	\$ 0.2387	\$ 0.2125	\$ 0.1903	\$ 0.1927	\$ 0.1588
Total Cost per 100 Cubic Feet	\$ 1.8558	\$ 1.6575	\$ 1.8742	\$ 1.6515	\$ 1.6414	\$ 1.8851	\$ 1.4793
Operating revenue	\$ 14,878,380	\$ 13,911,617	\$ 11,743,510	\$ 12,006,506	\$ 11,944,996	\$ 11,353,762	\$ 12,150,049
Revenue per 100 Cubic Feet Sold	\$ 2.4554	\$ 2.1588	\$ 1.9817	\$ 1.8036	\$ 1.8153	\$ 1.8891	\$ 1.6287
Water meters in service	28,069	28,050	29,069	30,317	27,950	28,016	28,087
Water main miles	428.3	426.7	427.5	427.3	425.2	424.4	424.3
Water meters per mile of main	65.54	65.74	68.00	70.95	65.73	66.01	66.20
Hydrants on system	2,671	2,594	2,577	2,535	2,506	2,500	2,396

(*) Depreciation not included

WATER PURIFICATION 2013 LAKEWOOD STATION

Month	Total Number of Gallons Treated	Average Water Temperature at Treatment Bldg Degree F	Ammonia Lbs. Used	Chlorine Lbs. Used
January	432,300,000	37.0	1,943	7,127
February	405,250,000	33.5	1,796	6,803
March	432,270,000	32.6	1,942	7,046
April	401,370,000	33.7	1,806	6,363
May	392,190,000	36.0	1,861	6,845
June	415,820,000	38.8	1,898	6,921
July	495,160,000	44.0	2,230	8,427
August	520,250,000	43.6	2,318	8,326
September	466,920,000	53.9	2,059	7,978
October	424,630,000	50.7	1,942	7,339
November	398,020,000	42.7	1,861	6,457
December	421,360,000	36.6	1,909	6,438
TOTAL	5,205,540,000		23,565	86,070
Average/Month	433,795,000	40.3	1,964	7,173

**2013
LAKE SUPERIOR RAW WATER
AND DULUTH FINISHED WATER (LABORATORY ANALYSES)**

Milligrams per Liter, Except pH, Turbidity and Specific Conductance

	RAW	FINISHED
	Average	Average
Dissolved Oxygen	12.66	12.84
pH	7.8	8.94
Monthly Specific Conductance Micromhos/cm	100.6	124.6
Alkalinity	42.4	44.8
Sulfates	2.5	7.1
Fluorides	0.06	0.87
Turbidity NTU	0.75	0.013
Chlorine	0.00	1.3
Temperature	40.25°F	

WATER TREATMENT 2013

Month	Alum Used Gal.	Fluoride Used Gal.	Turbidity of Effluent NTU
January	8,000	1,736	0.015
February	4,000	1,662	0.015
March	12,000	1,770	0.011
April	8,000	1,603	0.014
May	8,000	1,597	0.014
June	12,000	1,682	0.013
July	16,000	2,043	0.018
August	8,000	2,118	0.012
September	8,000	1,676	0.012
October	12,000	1,571	0.010
November	8,000	1,639	0.011
December	8,000	1,595	0.011
Average/Month	9,333	1,724	0.013

BACTERIOLOGICAL DATA 2013

	RAW WATER INTAKE				TREATED WATER		DISTRIBUTION	
Average for	Number Samples	Total Bacteria per ml 48 Hours 35 degree C	Coliform per 100 ml	Fecal Coliform per 100 ml	Number Samples	Number Samples Positive	Number Samples	Number Samples Positive
January	38	0.84	0.18	0.10	206	0	92	0
February	34	0.94	0.15	0.15	194	0	91	0
March	37	0.84	0.00	0.00	216	0	91	0
April	39	5.51	0.04	0.15	226	0	93	0
May	38	25.63	1.00	0.24	210	0	92	0
June	36	13.25	2.22	1.91	211	0	92	0
July	38	3.74	0.74	0.22	219	0	96	0
August	38	2.74	1.34	0.05	215	0	91	0
September	37	8.51	0.35	0.11	216	0	92	0
October	42	15.86	0.62	0.39	238	0	99	0
November	30	2.50	0.30	0.13	168	0	92	0
December	31	1.81	0.84	0.18	178	0	92	0
TOTAL	438	N/A	N/A	N/A	2,497	0	1,113	0
Average for Month	36.5	6.85	0.65	0.30	208	0	92.8	0.00

LENGTH OF WATER MAINS IN FEET 2013

Diameter Inches	Cast Iron	Ductile Iron	Steel	Copper	Polyvinyl Chloride	High Density Polyethylene	Total	Valves	Vaults
1				842			842	6	
2	33			2,031		9,539	11,603	27	
3	1,390					619	2,009	4	
4	11,047	2,400				7	13,454	48	
6	999,082	156,052	1,128		1,727	9,871	1,167,860	2,431	9
8	83,660	93,333	458			133,711	311,162	639	7
10	153,470	56,218	6,915			31,840	248,443	422	1
12	159,883	42,584	1,884			16,070	220,421	352	16
14						1,848	1,848	2	
16	83,398	23,787	10,363				117,548	137	1
18	1,388	10				2,107	3,505	2	
20	15,048	1,507	29,191				45,746	29	3
24	8,620	2,091	55			5,029	15,795	11	
30			2,670				2,670	2	
36	25,475	11,184	11,374				48,033	29	1
42	181		49,208				49,389	7	1
48		927					927	0	
TOTALS	1,542,675	390,093	113,246	2,873	1,727	210,641	2,261,255	4,148	39
Total Miles -							428.3		
Change from 2012 -							1.57	95	-317

Notes: Pipe and valves in hydrant branches are not included in the above table.
 Air valves, valves without gates and valves inside pump stations are not included.
 All Main and Hydrant information provided from Geographic Information System.

HYDRANTS AND BRANCHES FINAL REPORT 2013

	Mueller	4"	Mathews		Michigan	Unknown	Waterous	Iowa		Stockholm	Total	Valves on	Lineal Feet
	5"		4 1/2"	5"				5"	4"					5"	2"	Hydrants	Branches	Main to Hydt.
TOTAL IN SERVICE 12/31/2012	138	0	509	0	3	362	1,580	0	2	2	2,594	2,491	53,339
TOTAL IN SERVICE 12/31/2013	140	0	501	0	3	361	1,662	0	2	2	2,671	2,536	54,054

Number of Hydrants added in 2013 - 77

Number of Hydrant Valves added in 2013 - 45

Lineal feet of Hydrant branch main added in 2013 - 715

**2013
DATA, RESERVOIRS AND TANKS**

Location	Capacity Gallons	Overflow Elevation	Greatest Depth	Dimension	Remarks
Lakeside Tank	100,000	500.00 Feet	23.75 Feet	Diameter 27 Feet	Built in 1961
34th Avenue East "Reservoir A"	16,320,000	294.00 Feet	30.00 Feet	284 Feet x 391 Feet	Built 1898, Rebuilt 1938
Endion Reservoir	14,140,000	290.00 Feet	28.00 Feet	240 Feet x 320 Feet	Built by G & W Company Rebuilt 1922 New Roof 1966 Lined 1988
West End Reservoirs #1-6	10,200,000	290.00 Feet	33.00 Feet	Diameter 100 Feet	Built 1953
West Duluth Reservoir	10,000,000	290.00 Feet	21.00 Feet	327.3 Feet x 263.3 Feet	Built 1906 Remodeled 1925
Middle System - Reservoir #1	5,171,000	560.00 Feet	28.00 Feet	Diameter 187.38 Feet	Built 1913 New Roof 1928 Lined 1988
Middle System - Reservoir #2	5,131,000	560.00 Feet	25.00 Feet	Diameter 190 Feet	Built in 1951
Woodland Reservoir #1	1,021,000	806.00 Feet	22.00 Feet	Diameter 91.5 Feet	Built in 1915 Lined 1939 Refaced 2002
Woodland Reservoir #2	2,015,000	806.00 Feet	35.50 Feet	Diameter 100 Feet	Built in 1950 Lined 2000 Refaced 2002
Arlington Reservoir #1	240,490	806.00 Feet	27.00 Feet	Diameter 40 Feet	Built in 1925
Arlington Reservoir #2	1,534,000	806.00 Feet	27.50 Feet	Diameter 100 Feet	Built in 1950
Orphanage Tank #1	400,000	916.00 Feet	129.40 Feet	Diameter 51.5 Feet	Built 1994
Highland Water Tower	1,000,000	141.60 Feet	40.00 Feet	Diameter 74.8 1/4 Feet	Built 2011
Bay View Heights Steel Tank	100,000	550.00 Feet	26.00 Feet	Diameter 26 Feet	Built 1972
Proctor Tank	400,000	825.00 Feet	142.00 Feet	Diameter 51.5 Feet	Built 1989
TOTAL	67,772,490				

PUMPING STATIONS - WATER PUMPING EQUIPMENT

Station	Source of Supply	Reservoirs Discharged Into	No. Units and Year Installed	Make of Pump	Type of Pump	Unit No.	Pumps Driven By	R.P.M.	Average Capacity G.P.M. Each Unit
Lakewood Low Lift	Lake Superior	Lakewood	1 -- 1992	Patterson	Single Stage Centrifugal	2	1 Unit direct connected to 300 hp, 2300 volt, 60 cycle, GE Induction motor.	900	17,400
			1 -- 1949	DeLaval		4	1 Unit direct connected to 350 hp, 2300 volt, 60 cycle, GE Induction motor	440	20,800
			1 -- 1981	Worthington	Single Stage	1	1 Unit direct connected to 200 hp, 2300 volt, 60 cycle, GE Induction motor	500	11,389
Lakewood High Lift	Lakewood (Detention Basin)	Reservoir A Endion, West End, & West Duluth	1 -- 1992	Patterson	Single Stage Centrifugal	2	2 Unit direct connected to 1500 hp, 2300 volt, 60 cycle GE Induction motor with VFD and fixed controller	1,200	17,400
			1 -- 1949	DeLaval	Two Stage Centrifugal	4	2 Unit direct connected to 2000 hp, 2300 volt, 60 cycle, GE synchronous motor, with direct exciter	720	20,800
			1 -- 1981	Worthington	Single Stage	1	1 Unit direct connected to 1000 hp, 2300 volt, 60 cycle GE capacitor induction motor	1,185	11,389
Middle	Reservoir A and Endion	Middle Service	1 -- 1950	Allis-Chalmers	Single Stage, Two Unit, Centrifugal	3	Direct connected to 400 hp, 2300 volt, 60 cycle, Allis-Chalmers synchronous motor, with direct connected exciter	1,800	4,000
			1 -- 1969	Aurora	Single Stage, One Unit, Centrifugal	4	Direct connected to 250 hp, 2300 volt, 60 cycle, 3-phase Louis Allis Induction motor	1,750	2,500
			1 -- 1986	Fairbanks-Morse	Single Stage, One Unit, Centrifugal	5	Direct connected to 250 hp, 2300 volt, 60 cycle, 3-phase Siemens-Allis motor	1,785	2,600
Woodland	Reservoir A	Woodland & Arlington Reservoir	1 -- 1950	Allis-Chalmers	All Units Single State, Two Unit, Centrifugal	3	Direct connected to 500 hp, 2300 volt, 60 cycle, Allis-Chalmers synchronous motor, with direct connected exciter	1,800	2,050
			1 -- 1986	Fairbanks Morse Co.		4	Direct connected to 300 hp, 2300 volt, 60 cycle, Siemens-Allis Induction motor	1,775	1,720
			1 -- 1975	Aurora #421	Two Stage, Centrifugal	5	Direct connected to 240 hp, 2300 volt, 60 cycle, 3-phase Marathon Induction motor	1,750	1,250

PUMPING STATIONS - WATER PUMPING EQUIPMENT

Station	Source of Supply	Reservoirs Discharged Into	No. Units and Year Installed	Make of Pump	Type of Pump	Unit No.	Pumps Driven By	R.P.M.	Average Capacity G.P.M. Each Unit
West Duluth	Reservoir A, Endion & West	West Duluth Reservoir & West Duluth System	2 -- 2009	Fairbanks-Morse	All Units Single Stage	2	200 hp, 460 volt, 60 cycle 3-phase WEG NEMA Premium Induction motor, with VFD drive	1,200	6,000
Orphanage	Woodland Reservoirs	Orphanage Tanks	1 -- 1961	Worthington Type L-2	Single Stage Centrifugal	5	Direct connected to 40 hp, 440 volt, 60 cycle, U.S. Induction motor	1,750	1,000
			1 -- 1961		Single Stage Centrifugal	6	Direct connected to 40 hp, 440 volt, 60 cycle, U.S. Induction motor	1,750	1,000
Highland	Arlington Reservoirs	Highland Tanks	2 -- 2012	Aurora	Single Stage, Single Suction Centrifugal	3	2-Unit Direct connected to 150 hp, 460 volt, 60 HZ, 3-phase Marathon Electric XRI high efficiency motor	1,800	1,200
Arlington	Middle Reservoirs	Arlington Reservoirs	3 -- 2010	Aurora Type 411 BF Size 6x8x20	Single Stage Centrifugal	3	250 hp, 460 volt, 60 cycle 3-phase Baldor Induction motor with VFD drive	1,750	1,700
Lakeside	Two 10" Mains	Lakeside Tank	2 -- 1961	Worthington Type L-3	Single Stage Centrifugal	1 2	Each unit direct connected to 100 hp, 440 volt, 60 cycle, 3-phase U.S. Induction motor	1,750	1,000
Bay View	West Duluth Reservoir	Bay View Tank	2 -- 1973 2-- 2002	Aurora	Single Stage Centrifugal	1 2	Each unit direct connected to 125 hp, 440 volt, 60 cycle, 3-phase U.S. Induction motor	3,500	1,200
Proctor	Bay View Tank	Proctor Standpipe	2 -- 1973	Aurora	Single Stage Centrifugal	1 2	Each unit direct connected to 125 hp, 440 volt, 60 cycle, 3-phase Louis Allis motor	3,500	1,200

WATER UTILITY ACTIVITIES 2013

ACTIVITY	WORK COMPLETED
Repair of water services and mains	139
Repair of valves	80
Repair of main breaks	113
Cut off services	34
Install services	44
Steam requests (hydrants/services)	142
Water leak checks	385
Miscellaneous Customer Service requests	357
Fire hydrants:	
Replace and repair hydrants	481
Steaming	35
Inspection	All fire hydrants in the City are inspected by the Fire Department and Utility Operations as part of a preventative maintenance program.

CUSTOMER SERVICE DIVISION WATER ACTIVITIES 2013

ACTIVITY	WORK COMPLETED
Meter Truck: Gauge water service Applications (water & gas) Credit (water & gas) Emergency (water & gas) General (water & gas)	89 9,659 2,885 832 1,907
Meter Shop: Water meters repaired Water meters tested Plumbing truck orders (water & gas)	356 691 361

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**Gas Utility
Statement of Net Income
For The Year Ended December 31, 2012 and 2013
(Unaudited)**

	2012	2013
<u>Operating Revenue</u>		
Residential Sales	\$ 21,498,228	\$ 25,823,547
Commercial & Industrial - Firm	7,748,214	9,805,774
Commercial & Industrial - Interruptible	3,165,778	3,432,563
Servicing Appliances	695,002	771,567
Other	834,307	627,914
Total Operating Revenue	\$ 33,941,529	\$ 40,461,365
<u>Operating Expense</u>		
Director's Office	86,317	86,521
Capital Related Expenses	1,291,452	1,368,395
Utility General Expense	2,114,043	1,933,823
Engineering	569,767	645,138
Utility Operations	2,159,435	2,069,500
Natural Gas	20,040,050	24,716,475
Customer Service	3,702,547	4,132,512
Total Operating Expense	(29,963,611)	(34,952,364)
Operating Income	3,977,918	5,509,001
<u>Other Revenue</u>		
Contributed Assets	31,279	49,557
Gain or Loss on Sale of Fixed Assets	3,349	(4,983)
Transfer from Other Funds		
Street Lighting	15,990	15,990
Intergovernmental	23,365	23,365
Interest Income	75,259	30,203
Total Other Revenue	149,242	114,132
<u>Other Expenses and Transfers</u>		
Interest Expense	274,210	246,635
Transfers to Other Funds		
Payment to City in Lieu of Taxes	2,889,700	2,375,793
Investing Activities	71,500	73,362
Non-Capital Improvements	10,129	24,506
Total Other Expenses and Transfers	(3,245,539)	(2,720,296)
Net Income or Loss	\$ 881,621	\$ 2,902,837

**Gas Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)**

	Assets & Deferred Outflows	
	2012	2013
<u>Current Assets</u>		
Cash	\$ 2,888,656	\$ 3,597,280
Restricted Cash and Equivalents:		
Customer Deposit	2,352,074	1,590,549
Accounts Receivable (Net)	5,234,385	7,014,469
Special Assessments	17,421	11,107
Due from Other Funds	78,991	10,450
Due from Other Governments	263,279	126
Inventory	876,748	868,490
Prepaid gas	1,317,018	1,700,297
Total Current Assets	\$ 13,028,572	\$ 14,792,768
<u>Utility Plant</u>		
In Service	62,148,325	65,601,301
Construction	3,407,456	2,684,132
Less Accumulated Depreciation	(21,243,385)	(22,407,898)
Total Utility Plant Assets	44,312,396	45,877,535
<u>Other Assets</u>		
Special Assessments Receivable	16,867	12,728
Bond Issuance Charges	75,956	0
Advance to Other Funds	1,500,000	1,350,000
Total Other Assets	1,592,823	1,362,728
Total Assets	58,933,791	62,033,031
<u>Deferred Outflows</u>		
Deferred Loss from Debt Refunding	0	98,479
Total Deferred Outflows	0	98,479
Total Assets and Deferred Outflows	\$ 58,933,791	\$ 62,131,510

Gas Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)

	Liabilities & Net Assets	
	2012	2013
<u>Current Liabilities</u>		
Accounts Payable	\$ 2,554,068	\$ 4,035,086
Contracts Payable	209,943	145,364
Leases Payable	179,903	186,786
Due to Other Funds	111,667	28,972
Due to Other Governments	72,523	96,718
Accrued Interest Payable	120,979	109,002
Accrued Salaries Payable	216,384	257,925
Accrued Vacations Payable	338,068	354,032
Deferred Revenue	764,497	572,816
Customer Deposits	1,484,593	1,590,549
Bonds Payable	857,980	896,020
Total Current Liabilities (Payable from Current Assets)	\$ 6,910,605	\$ 8,273,270
<u>Long Term Liabilities</u>		
Accrued Vacations Payable	28,864	0
Leases Payable	2,359,228	2,172,442
Net Other Post Employment Benefits	42,654	85,524
Bonds Payable	5,221,877	4,325,858
Less Unamortized Bond Discount	123,909	200,881
Total Long Term Liabilities	7,776,532	6,784,705
Total Liabilities	14,687,137	15,057,975
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	35,645,455	38,194,027
Unrestricted	8,601,199	8,879,508
Total Net Assets	44,246,654	47,073,535
Total Liabilities and Net Assets	\$ 58,933,791	\$ 62,131,510

**City of Duluth
Gas Utility Bonds and Capital Leases Payable
December 31, 2013**

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2012</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2013</u>
Gas Utility								
Bonds								
Revenue and General Obligation	\$ 1,190,000	12/19/2006	2/1/2022	\$ 875,000	\$ 0	\$ 0	\$ 75,000	\$ 800,000
Revenue and General Obligation Refunding	2,846,814	12/17/2009	2/1/2017	2,079,857	0	0	402,980	1,676,877
Revenue and General Obligation Refunding	3,125,000	11/29/2011	2/1/2019	<u>3,125,000</u>	<u>0</u>	<u>0</u>	<u>380,000</u>	<u>2,745,000</u>
Bond Total				<u>\$ 6,079,857</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 857,980</u>	<u>\$ 5,221,877</u>
Capital Leases								
AMR System	\$ 3,156,533	7/12/2007	2/1/2024	<u>\$ 2,539,131</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 179,903</u>	<u>\$ 2,359,228</u>
Capital Lease Total				<u>\$ 2,539,131</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 179,903</u>	<u>\$ 2,359,228</u>
Total Gas Utility Bonds and Capital Leases				<u><u>\$ 8,618,988</u></u>	<u><u>\$ 0</u></u>	<u><u>\$ 0</u></u>	<u><u>\$ 1,037,883</u></u>	<u><u>\$ 7,581,105</u></u>

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2014	\$ 1,082,806	\$ 249,487	\$ 1,332,293
2015	1,116,904	216,619	1,333,523
2016	1,151,307	181,608	1,332,915
2017	1,196,987	141,866	1,338,853
2018	787,054	105,004	892,058
2019	820,359	73,444	893,803
2020	328,980	50,975	379,955
2021	342,933	38,001	380,934
2022	357,227	24,426	381,653
2023	261,876	12,571	274,447
2024	134,672	2,552	137,224
	<u>\$ 7,581,105</u>	<u>\$ 1,096,553</u>	<u>\$ 8,677,658</u>

Gas Fund
Schedule of Fixed Assets
Year Ending December 31, 2013

	<u>Balance Jan.</u> <u>1, 2013</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec.</u> <u>31, 2013</u>	<u>Accumulated</u> <u>Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 420,815	\$ 0	\$ 0	\$ 420,815	\$ 0	\$ 420,815
Infrastructure	51,117,712	3,384,302	0	54,502,014	16,993,623	37,508,391
Buildings and Structures	2,592,124	0	0	2,592,124	777,544	1,814,580
Equipment and Tools	8,017,674	222,824	154,150	8,086,348	4,636,731	3,449,617
Work in Progress	<u>3,407,456</u>	<u>2,693,502</u>	<u>3,416,826</u>	<u>2,684,132</u>	<u>0</u>	<u>2,684,132</u>
Total	<u>\$ 65,555,781</u>	<u>\$ 6,300,628</u>	<u>\$ 3,570,976</u>	<u>\$ 68,285,433</u>	<u>\$ 22,407,898</u>	<u>\$ 45,877,535</u>

GAS STATISTICS

	2013	2012	2011	2010	2009	2008	2007
Gas sold MMBTU	5,355,988	4,191,481	4,864,262	4,617,923	4,804,897	5,169,299	4,544,616
Cost of gas sold	\$ 24,132,568	\$ 19,376,845	\$ 25,207,873	\$ 25,014,748	\$ 27,647,451	\$ 42,819,209	\$ 36,093,665
Cost per MMBTU sold	\$ 4.5057	\$ 4.6229	\$ 5.1823	\$ 5.4169	\$ 5.7540	\$ 8.2834	\$ 7.9421
Other operating costs, including maintenance(*)	\$ 9,506,116	\$ 9,314,644	\$ 9,168,387	\$ 9,238,887	\$ 9,243,290	\$ 10,106,846	\$ 9,561,803
Cost per MMBTU sold	\$ 1.7749	\$ 2.2223	\$ 1.8848	\$ 2.0007	\$ 1.9237	\$ 1.9552	\$ 2.1040
Interest charges	\$ 246,635	\$ 274,210	\$ 295,311	\$ 503,288	\$ 554,975	\$ 505,728	\$ 540,182
Cost per MMBTU sold	\$ 0.0460	\$ 0.0654	\$ 0.0607	\$ 0.1090	\$ 0.1155	\$ 0.0978	\$ 0.1189
Depreciation charge(**)	\$ 1,313,680	\$ 1,272,122	\$ 1,240,613	\$ 1,219,538	\$ 1,056,585	\$ 1,088,666	\$ 1,060,245
Cost per MMBTU sold	\$ 0.2453	\$ 0.3035	\$ 0.2550	\$ 0.2641	\$ 0.2199	\$ 0.2106	\$ 0.2333
Total cost per MMBTU sold	\$ 6.5719	\$ 7.2141	\$ 7.3829	\$ 7.7906	\$ 8.0131	\$ 10.5470	\$ 10.3982
Operating revenue per MMBTU	\$ 7.5544	\$ 8.0977	\$ 8.4867	\$ 8.5967	\$ 9.6227	\$ 11.3061	\$ 10.4177
Gas meters in service	27,435	27,075	26,592	26,668	26,148	25,983	25,726
Gas main miles	527.1	520	510.1	512.4	506	510.2	508
Gas transmission miles	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Gas meters per mile of main	52.05	52.07	52.13	52.05	51.68	50.93	50.64

(*) Does not include depreciation for the cost of natural gas

(**) Does not include depreciation due to change in Capital Policy

GAS ANALYSIS 2013

Month	Gas Purchased MMBTU	Storage Gas	MMBTU Transport	Consumption w/o Transport MMBTU	Total Transport BTU's	Number of Transport Customers
Beginning Balance		476,823				
January	863,648	-214,974	35,777	827,871	1,022	1
February	715,211	-123,200	34,504	680,707	1,023	1
March	650,514	-80,362	36,220	614,294	1,024	1
April	483,796	-58,289	27,798	455,998	1,022	1
May	328,269	44,950	25,925	302,344	1,014	1
June	184,703	144,708	20,342	164,361	1,007	1
July	183,008	143,986	19,246	163,762	1,015	1
August	174,265	164,296	20,454	153,811	1,023	1
September	193,739	143,520	22,132	171,607	1,018	1
October	363,761	109,239	25,885	337,876	1,022	1
November	571,462	-107,045	23,286	548,176	1,023	1
December	980,745	-155,480	33,630	947,115	1,020	1
Storage Balance		488,172				
Totals	5,693,121		325,199	5,367,922	1,019	

- withdraw, + inject

LENGTH OF GAS MAINS IN FEET 2013

Diameter - Inches	Polyethylene	Steel	Total	Valves	Vaults
1	48,260		48,260	66	
1 1/4		2,922	2,922	28	
2	1,771,544	31,058	1,802,602	862	1
3	378,589	9,009	387,598	252	
4		48,449	48,449	60	1
6	49,174	80,799	129,973	98	5
8	12,285	149,273	161,558	65	1
10		93,352	93,352	34	4
12		12,323	12,323	9	2
14		4,118	4,118		
16		91,688	91,688	9	4
Totals	2,259,852	522,991	2,782,843	1,483	18

Total Miles Gas Main	527.1
Added in 2013	7.1
Pressure Regulators	16
Gas Valves added in 2013	15

Note: Valves used only as plugs on end of mains are not included in the above table.
 Gas main quantities are derived from Geographic Information System.

GAS UTILITY ACTIVITIES 2013

ACTIVITY	WORK COMPLETED
SERVICES AND MAINS	
Installations	246 (192 contracted, 44 by City crew, 10 privately)
Cutoffs	73
Repaired services and mains (not considered hits)	16
Rerouted/replaced	1,600 (1,402 contracted, 198 by City crew)
Lowered gas services/mains	9
Valves inspected and operated	392
Hits	28

CUSTOMER SERVICE DIVISION GAS ACTIVITIES 2013

ACTIVITY	WORK COMPLETED
Service Workorders Completed:	
Appliance service	4,236
Furnace cleaning	2,678
Tin shop	253
Meter Truck:	
Applications (water & gas)	9,659
Credit (water & gas)	2,885
Emergency (water & gas)	832
General (water & gas)	1,907
Meter Shop:	
Gas meters repaired	369
Gas meters tested	424
Plumbing truck orders (water & gas)	361
Other:	
Gas leak detection surveys	11,058
Set post, bar and reg for new gas services	320
Inspect and paint gas meters and risers	2,661
Gas meter visual verification and safety check	389
Skips/Previewers	1,397

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**Sewer Utility
Statement of Net Income
For The Year Ended December 31, 2012 and 2013
(Unaudited)**

	2012		2013
<u>Operating Revenue</u>			
General Sewage Revenue	\$ 18,329,389		\$ 18,498,879
Other	187,763		238,080
Total Operating Revenue	\$ 18,517,152		\$ 18,736,959
<u>Operating Expense</u>			
Director's Office	68,722		62,795
Capital Related Expenses	1,342,568		1,455,137
Utility General Expense	918,097		915,762
Engineering	450,509		488,269
Utility Operations	2,282,799		2,125,207
Wastewater Treatment	8,725,682		8,829,722
Inflow and Infiltration	1,847,356		1,712,733
Customer Service	356,982		430,949
Total Operating Expense	(15,992,715)		(16,020,574)
Operating Income	2,524,437		2,716,385
<u>Other Revenue</u>			
Contributed Assets	436,161		563,791
Gain or Loss on Sale of Fixed Assets	1,001		0
Transfer from Other Funds			
Street Lighting	9,430		9,430
Intergovernmental	8,283		8,283
Interest Income	17,715		(9,050)
Total Other Revenue	472,590		572,454
<u>Other Expenses and Transfers</u>			
Transfer to Other Funds			
Investing Activities	9,387		11,076
Other Transfers	29,747		3,044
Interest on Long Term Debt	528,015		406,315
Total Other Expenses and Transfers	(567,149)		(420,435)
Net Income or Loss	\$ 2,429,878		\$ 2,868,404

**Sewer Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)**

	Assets & Deferred Outflows	
	2012	2013
<u>Current Assets</u>		
Cash	\$ 1,199,316	\$ 2,319,393
Restricted Cash and Equivalents:		
Construction	20,680	51,797
Accounts Receivable (Net)	1,848,101	1,816,529
Special Assessments	13,551	40,667
Due from Other Funds	248,685	77,861
Due from Other Governments	53,707	28,015
Inventory	69,037	67,240
Prepays	<u>38,135</u>	<u>57,682</u>
Total Current Assets	\$ <u>3,491,212</u>	\$ <u>4,459,184</u>
<u>Utility Plant</u>		
In Service	61,192,491	64,594,046
Construction	<u>3,909,305</u>	<u>1,598,572</u>
Less Accumulated Depreciation	<u>(13,953,601)</u>	<u>(15,205,434)</u>
Total Utility Plant Assets	<u>51,148,195</u>	<u>50,987,184</u>
<u>Other Assets</u>		
Special Assessments Receivable	128,273	165,664
Issuance Costs	<u>212,430</u>	<u>0</u>
Total Other Assets	<u>340,703</u>	<u>165,664</u>
Total Assets	<u>54,980,110</u>	<u>55,612,032</u>
<u>Deferred Outflows</u>		
Deferred Loss from Debt Refunding	<u>0</u>	<u>276,333</u>
Total Deferred Outflows	<u>0</u>	<u>276,333</u>
Total Assets and Deferred Outflows	\$ <u><u>54,980,110</u></u>	\$ <u><u>55,888,365</u></u>

**Sewer Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)**

	Liabilities & Net Assets	
	2012	2013
<u>Current Liabilities</u>		
Accounts Payable	\$ 122,644	\$ 117,159
Contracts Payable	129,758	7,854
Notes Payable	273,113	276,320
Leases Payable	169,000	175,466
Due to Other Funds	77,518	52,853
Due to Other Governments	715,933	724,321
Interest Payable	217,102	171,374
Accrued Salaries Payable	107,249	110,466
Vacations Payable	167,431	144,378
Deferred Revenue	70,751	45,798
Bonds Payable	<u>1,378,944</u>	<u>1,442,511</u>
Total Current Liabilities (Payable from Current Assets)	\$ <u>3,429,443</u>	\$ <u>3,268,500</u>
<u>Long Term Liabilities</u>		
Notes Payable	1,904,109	1,655,702
Vacations Payable	11,450	2,585
Leases Payable	2,216,245	2,040,779
Bonds Payable	10,740,429	9,297,919
Less Unamortized Bond Discount or Premium	<u>(79,581)</u>	<u>208,891</u>
Total Long Term Liabilities	<u>14,792,652</u>	<u>13,205,876</u>
Total Liabilities	<u>18,222,095</u>	<u>16,474,376</u>
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	34,758,366	36,165,929
Legal Restricted Assets	20,680	51,797
Unrestricted	<u>1,978,969</u>	<u>3,196,263</u>
Total Net Assets	<u>36,758,015</u>	<u>39,413,989</u>
Total Liabilities and Net Assets	\$ <u><u>54,980,110</u></u>	\$ <u><u>55,888,365</u></u>

City of Duluth
Sewer Utility Bonds, Notes and Capital Leases Payable
December 31, 2013

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2012</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2013</u>
Sewer Utility								
Bonds								
Revenue and General Obligation	\$ 4,045,000	12/1/2004	2/1/2020	\$ 265,000	\$ 0	\$ 0	\$ 265,000	\$ 0
Revenue and General Obligation	1,011,831	12/19/2005	2/1/2021	129,538	0	0	63,330	66,208
Revenue and General Obligation	2,503,169	12/19/2005	2/1/2021	320,462	0	0	156,670	163,792
Revenue and General Obligation	765,450	12/19/2006	2/1/2022	558,900	0	0	48,600	510,300
Revenue and General Obligation	179,550	12/19/2006	2/1/2022	131,100	0	0	11,400	119,700
Revenue and General Obligation	2,120,000	12/13/2007	2/1/2023	1,675,000	0	0	125,000	1,550,000
Revenue and General Obligation Refunding	1,325,000	12/13/2007	2/1/2016	640,000	0	0	185,000	455,000
Revenue and General Obligation	1,244,000	2/19/2009	2/1/2024	1,038,964	0	0	71,504	967,460
Revenue and General Obligation Refunding	713,186	12/17/2009	2/1/2017	520,143	0	0	102,020	418,123
Revenue and General Obligation	905,000	12/17/2009	2/1/2025	810,000	0	0	50,000	760,000
Revenue and General Obligation Refunding	2,025,000	11/23/2010	2/1/2018	1,765,267	0	0	280,420	1,484,847
Revenue and General Obligation Refunding	2,265,000	11/29/2011	2/1/2020	2,265,000	0	0	20,000	2,245,000
Revenue and General Obligation Refunding	2,000,000	11/27/2012	2/1/2021	2,000,000	0	0	0	2,000,000
Bond Total				\$ 12,119,374	\$ 0	\$ 0	\$ 1,378,944	\$ 10,740,430
Notes								
Public Facilities Authority	\$ 100,000	8/25/2003	8/20/2018	\$ 45,773	\$ 0	\$ 0	\$ 7,113	\$ 38,660
Public Facilities Authority	1,179,115	10/17/2003	8/20/2018	540,000	0	0	87,000	453,000
Public Facilities Authority (Note 1)	1,973,033	7/12/2007	8/20/2022	1,489,000	0	0	141,000	1,348,000
Public Facilities Authority (Note 3)	354,551	11/18/2011	8/20/2021	102,449	0	27,912	38,000	92,361
Note Total				\$ 2,177,222	\$ 0	\$ 27,912	\$ 273,113	\$ 1,932,021
Capital Leases								
AMR System	\$ 2,965,228	7/12/2007	2/1/2024	\$ 2,385,245	\$ 0	\$ 0	\$ 169,000	\$ 2,216,245
Capital Lease Total				\$ 2,385,245	\$ 0	\$ 0	\$ 169,000	\$ 2,216,245
Total Sewer Utility Bonds, Notes, and Capital Leases				\$ 16,681,841	\$ 0	\$ 27,912	\$ 1,821,057	\$ 14,888,696

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2014	\$ 1,894,296	\$ 397,615	\$ 2,291,911
2015	1,956,458	350,251	2,306,709
2016	1,841,256	303,215	2,144,471
2017	1,842,363	257,079	2,099,442
2018	1,785,208	210,099	1,995,307
2019	1,404,712	165,769	1,570,481
2020	1,454,118	124,292	1,578,410
2021	1,136,974	86,535	1,223,509
2022	813,705	55,903	869,608
2023	599,216	29,206	628,422
2024	304,028	8,948	312,976
2025	75,000	1,500	76,500
	\$ 15,107,334	\$ 1,990,412	\$ 17,097,746

**Sewer Fund
Schedule of Fixed Assets
Year Ending December 31, 2013**

	<u>Balance Jan. 1, 2013</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2013</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 156,349	\$ 0	\$ 0	\$ 156,349	\$ 0	\$ 156,349
Infrastructure	47,897,608	3,181,701	0	51,079,309	8,782,958	42,296,351
Buildings and Structures	7,101,150	0	0	7,101,150	2,774,933	4,326,217
Equipment and Tools	6,037,384	260,963	41,109	6,257,238	3,647,543	2,609,695
Work in Progress	<u>3,909,305</u>	<u>892,627</u>	<u>3,203,360</u>	<u>1,598,572</u>	<u>0</u>	<u>1,598,572</u>
Total	<u>\$ 65,101,796</u>	<u>\$ 4,335,291</u>	<u>\$ 3,244,469</u>	<u>\$ 66,192,618</u>	<u>\$ 15,205,434</u>	<u>\$ 50,987,184</u>

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2013

	Station GIS Location	Station Type - Year Updated	Daily Flow Basin No.	Wet Well Capacity	Pump Cap. GPM each unit	Pump Mfg.	Motor HP	Motor Voltage - Phase	Motor F.L.A.	Force Main Size	Force Main Discharge GIS Location	Aux. Power Gen. Set No.
1	PS0880001	Triplex Submersible 6/16/2006	305,280 gal. 1	301,397 gal.	1 - 1700 2 - 1700 3 - 1700	KSB	1 - 83 hp 2 - 83 hp 3 - 83 hp	480 3	105	10"	SA0880119	Permanent Onsite 2779-150kW
2	PS0880002	Duplex Submersible 3/18/2009	2,160 gal. 1	927.6 gal.	23 23	Barnes	1 - 2 hp 2 - 2 hp	230 3	1 - 8 2 - 8	3"	SA0880117	All 60 Amp
3	PD0830003	Triplex Submersible 10/19/1999	397,872 gal. 4	N/A	1 - 265 2 - 1200 3 - 1200	KSB	1 - 10 hp 2 - 34 hp 3 - 34 hp	480 3	1 - 15.1 2 - 47.5 3 - 47.5	16"	SD1210001	Permanent Onsite 125kW
4	PS043004	Duplex Submersible 1/20/2006	3,024 gal. 6	927.52 gal.	1 - 100 2 - 100	KSB	1 - 5 hp 2 - 5 hp	208 3	1 - 15.4 2 - 15.4	4"	SW0430011	All 60 Amp
5	PS043005	Simplex Submersible 1970	720 gal. 6	97.3 gal.	1 - 67.42	Myers	1.9 hp	230 1	5.3	3"	SW0430012	
6	PS04100613	Duplex Submersible 8/12/2012	1,106,064 gal. 16	9,313.8 gal.	1 - 3000 2 - 3000 3 - 3000	RJB	50 hp 50 hp 50 hp C/G 5 hp	480 3	1 - 66.7 2 - 66.7 3 - 66.7 6	24"	CH0460269	Permanent
6SF	PS0410049	Duplex Submersible		8 mg		KSB	1 - 50 hp 2 - 50 hp	480 3	69.4 69.4	24"		Permanent
7	PS1090007	Duplex Submersible 2006	78,048 gal. 16	N/A	1 - 400 2 - 400	KSB	6.5 hp 6.5 hp	208 3	23 23	6"	SA1090003	All 60 Amp
8	PS1090008	Wet well Dry well 1983 & 1987 new pumps & motors	228,960 gal. 15	8,863.8 gal.	1 - 808 2 - 808	Fairbank Morse	30 hp	480 3	37.7	8"	SA109003	2765 2767 200 Amp
9	PS1090009	Duplex Submersible New motors 2011	165,888 gal. 15	3,941 gal.	1 - 850 2 - 850	KSB Grinder	1 - 7.5 hp 2 - 7.5 hp	208 3	26.3 26.3 17	10"	SA1090015	All 60 Amp
10	PS1100010	Duplex Submersible 1996	N/A 15	N/A	1 - 208 2 - 247.1	KSB	1 - 2.4 hp 2 - 2.4 hp	208 3	8.7	4'	SA0009	All 60 Amp

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2013

	Station GIS Location	Station Type - Year Updated	Daily Flow Basin No.	Wet Well Capacity	Pump Cap. GPM each unit	Pump Mfg.	Motor HP	Motor Voltage - Phase	Motor F.L.A.	Force Main Size	Force Main Discharge GIS Location	Aux. Power Gen. Set No.
11	PS1110011	Duplex Submersible 1996	N/A 15	N/A	1 - 164.4 2 - 161.4	KSB	1 - 2.4 hp 2 - 2.4 hp	208 3	1 - 8.4 2 - 8.4	4"	SA1110002	All 60 Amp
12	PS1110012	Duplex Submersible 1996	80,640 gal. 15		1 - 170 2 - 170 (approx.)	KSB	1 - 2.4 hp 2 - 2.4 hp	208 3	1 - 6.9 2 - 6.9	4"	SA1110013	All 60 Amp
13	PS0400013	Duplex Submersible 1995	N/A 16	N/A	1 - 650 2 - 650 1&2 - 710	KSB	1 - 12.8 hp 2 - 12.8 hp	480 3	1 - 29 2 - 29	12"	SW0400031	2765 2767 200 Amp
14	PS0320014	Duplex Submersible 2013	50,976 gal. 18	1,008 gal.	1 - 230 2 - 230	Flygt	1 - 10 hp 2 - 10 hp	208 3	1 - 9.5 2 - 18.5	8"	SA0310022	2766 2770
15	PS0310015	Triplex Wet well Dry well ~1975	248,688 gal. 18	N/A	1 - 2400 2 - 2400 3 - 2400	Chicago	1 - 40 hp 2 - 40 hp 3 - 40 hp	480 3	54	10"	SW0310030	2765 2767 200 Amp
16	PS0300016	Duplex Submersible	 23		1 - 1400 2 - 1400 1&2 - 2300	KSB		480 3				2765 2766 200 Amp
17	PS0290017	Duplex Submersible ~1975 2001	243,072 gal. 23	N/A	1 - 1000 2 - 1000 1&2 - 1500	KSB	1 - 10 hp 2 - 10 hp	240 3	1 - 32.5 2 - 32.5	8"	SW0290038	2767 2765 200 Amp
18	PS0180018	Duplex Submersible 1996	N/A 26	N/A	1 - 58.56 2 - 54.92 1&2 - 85	KSB	1 - 1.75 hp 2 - 1.75 hp	208 3	1 - 6.9 2 - 6.9	6"	SA0180041	All 60 Amp
19	PS1230019	Duplex Submersible 1984	2,880 gal. 28	409 gal.	1 - 73.7 2 - 79.2	Meyers	1 - 2 hp 2 - 2 hp	240	1 - 9.0 2 - 39.0	4"	SW1230034	All 60 Amp
20	PS0090001	Duplex Submersible 2004			1 - 360 2 - 360 1&2 - 540	KSB	1 - 5 hp 2 - 5 hp	208 30	1 - 17.7		SA0090036	2765 2767 200 Amp

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2013

	Station GIS Location	Station Type - Year Updated	Daily Flow Basin No.	Wet Well Capacity	Pump Cap. GPM each unit	Pump Mfg.	Motor HP	Motor Voltage - Phase	Motor F.L.A.	Force Main Size	Force Main Discharge GIS Location	Aux. Power Gen. Set No.
21	PS0020021	Duplex Submersible 2007	3,600 gal. 30	480 gal.	1 - 125 2 - 96.0	Chicago	1 - 10 hp 2 - 10 hp	208 3	1 - 33.4 2 - 30.1	4"	SA0030035	All 60 Amp
22	PS0730022	Duplex Submersible 2002	43,344 gal. 33		1 - 180 2 - 135.3 1-2:337.6	KSB	1 - 10 hp 2 - 3.4 hp	240 3	1 - 29.2 2 - 10.1	4"	SA0730023	2765 2767 200 Amp
23	PS0960023	Duplex steel shell Submersible ~1975	3,168 gal. 11	295.5 gal.	1 - 120.6 2 - 131.3	Flygt	1 - 3.8 hp 2 - 3.8 hp	240 1	14	4"	SA0960002	All 60 Amp
24	Removed											
25	PS1030025	Duplex Submersible 2001	8,352 gal. 11		1 - 200 2 - 200 1&2 - 300	KSB	1 - 15 hp 2 - 15 hp	240 3	1 - 52 2 - 52		SA1000001	2767 2765 200 Amp
26	PS0920026	Duplex Submersible 1999	49,680 gal. 5		1 - 200 2 - 200 1&2 - 300	KSB	1 - 16.5 2 - 16.5	240 3	1 - 52 2 - 52	4"	SA0860115	2767 2765
27	PS0420027	Duplex Submersible 1984	4,320 gal. 13	145.9 gal.	1 - 46.8 2 - 49.4 1&2 - 73	Myers	1 - 2 hp 2 - 2 hp	240 3	1 - 7.5 2 - 7.5	3"	SA0420086	All 60 Amp
28	PS1170028	Duplex Submersible 1998	17,136 gal. 22	N/A	1 - 159 2 - 159	KSB	1 - 3.4 hp 2 - 3.4 hp	240 3	1 - 10.2 2 - 10.2	4"	SA1170006	All 60 Amp
29	PS0470029	Duplex Submersible 1984	5,184 gal. 13	456.3 gal.	1 - 159 2 - 159 1&2 - 238	Barnes	1 - 3 hp 2 - 3 hp	240 3	1 - 9 2 - 9	4"	SA0470148	All 60 Amp
30	PS0580030	Duplex Submersible 1989	14,112 gal. 20	377.8 gal.	1 - 120.6 2 - 124.6 1&2 - 200	Flygt CP3102	1 - 5 hp 2 - 5 hp	240 3	1 - 13 2 - 13	6"		All 60 Amp

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2013

	Station GIS Location	Station Type - Year Updated	Daily Flow Basin No.	Wet Well Capacity	Pump Cap. GPM each unit	Pump Mfg.	Motor HP	Motor Voltage - Phase	Motor F.L.A.	Force Main Size	Force Main Discharge GIS Location	Aux. Power Gen. Set No.
31	PS0600031	Duplex Submersible 1989	13,104 gal. 21	658.3 gal.	1 - 200.5 2 - 154.3 1&2 - 300	Flygt CP3102	1 - 5 hp 2 - 5 hp	240 3	1 - 13 2 - 13	6"		All 60 Amp
32	PS0600032	Duplex Submersible 1989	5,472 gal. 21	613.4 gal.	1 - 139 2 - 155 1&2 - 300	Flygt CP3102	1 - 5 hp 2 - 5 hp	240 3	1 - 13 2 - 13	4"	SA0600093	All 60 Amp
33	PS1280033	Duplex Submersible 1995	NA	420 gal.	1 - 140 2 - 140 1&2 - 210	KSB	1 - 3 hp 2 - 3 hp	208	1 - 9.8 2 - 9.8	4"	SA0030061	All 60 Amp
34	PS0560034	Duplex Submersible 1993	NA 20	433.9 gal.	1 - 166 2 - 156 1&2 - 249	Flygt CP3127	1 - 10 hp 2 - 10 hp	480 3	1 - 13 1 - 13	4"	SA0560093	2767 2765 200 Amp
35	PS0630001	Duplex Submersible 2007			1 - 200 2 - 200 1&2 - 300	KSB	1 - 7.5 2 - 7.5	208 3	1 - 25 2 - 25	4"		All 60 Amp
36	PS0900036	Duplex Submersible 1992	1,152 gal. 11	980 gal.	1 - 195.4 2 - 196.7	Flygt CP3127X	1 - 10 hp 2 - 10 hp	240 3	1 - 26 2 - 26	Twin 4"	SA0900005	2767 2765 200 Amp
37	PS0420037	Duplex Submersible 1984	3,888 gal. 13	441.4 gal.	1 - 186.5 2 - 191.9	Flygt CP3085	1 - 3 hp 2 - 3 hp	208 3	1 - 10 2 - 10	4"	SA0420080	All 60 Amp
38	PS1120038	Duplex Submersible	Operated by Facilities Management									
39	PS0150039	Duplex Submersible 1988	20,880 gal. 23	643.2 gal.	1 - 306.3 2 - 313.8	Flygt	1 - 5 hp 2 - 5 hp	240 3	1 - 13 2 - 13	6"		All 60 Amp
40	PS0330040	Steel shell dry well with 6' concrete wet well	36,864 gal. 18	534.9 gal.	1 - 286.6 2 - 281.5	Fairbanks Morse	1 - 7.5 hp 2 - 7.5 hp	240 3	1 - 22.6 2 - 22.6	8"	SA0320008	All 60 Amp

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2013

	Station GIS Location	Station Type - Year Updated	Daily Flow Basin No.	Wet Well Capacity	Pump Cap. GPM each unit	Pump Mfg.	Motor HP	Motor Voltage - Phase	Motor F.L.A.	Force Main Size	Force Main Discharge GIS Location	Aux. Power Gen. Set No.
41	PS0680041	Duplex Submersible	8,928 gal. 22		1 - 400 2 - 400	KSB	1 - 15 hp 2 - 15 hp	240 3	1 - 43.5 2 - 43.5	6"	SA0680029	2767 2765 200 Amp
42	PS1320042	Duplex Submersible 1996	NA 22	NA	NA	KSB	1 - 5 hp 2 - 5 hp	480 3	1 - 7.8 2 - 7.8	4" 6"	SD1180032	2767 2765 200 Amp
43	PS1280143	Duplex Submersible 2000			1 - 100 2 - 100 3 - 150	KSB	1 - 15 hp 2 - 15 hp	240 3	1 - 43.5 2 - 43.5		SA1280001	2767 2765 200 Amp
44	PS0010144	Duplex Submersible 2000			1 - 180 2 - 180 3 - 200	KSB	1 - 10 hp 2 - 10 hp	208 3	29 29	6"		2767 2765 200 Amp
45	PS0880016	Triplex Submersible 2005		2 MG	1 - 2000 2 - 2000 3 - 2000	KSB	1 - 50 hp 2 - 50 hp 3 - 50 hp	480 3	39	12"	SW0830136	Permanent on site 2778 100kW
46	PS0090046	Duplex Submersible Grinder ~2005				Barnes	1 - 2 hp 2 - 2 hp	208 3	9.2 9.2	1.25"		
47	PS0090047	(in Bethany Crisis Shelter) ~2005				Barnes						
48	PS0080001	(9) 723-3870 ~2005				Barnes						
49		Private 724-4053										
50		Storage Basin 2007		1 MG	No Pumps	Gravity In Gravity Out						
51	PS0430001	Storage Basin Oct. 2010		3 MG		KSB						Permanent on site

LENGTH OF SANITARY SEWER PIPE IN FEET 2013

PIPE MATERIAL

Dia. Inches	Force Main	ABS	ACP	BRA	CBR	CI/DI	CIPP	CMP	HDPE	PVC	RCP	STL	VCP	Totals
2	23,254								1,615	644				25,513
3	13,046													13,046
4	32,973													32,973
6	12,890	48					55			1,446			7,074	21,513
8	12,247	7,045	7,026			12,424	117,171		1,111	450,592	305		912,896	1,520,817
9							3,913						23,223	27,136
10	6,233		14,969			3,726	13,116		153	33,027	3,335		68,891	143,450
12	4,119		2,143			1,293	7,584		656	18,854	43,914		47,650	126,213
14						165								165
15							3,459			11,125	32,881		30,171	77,636
16	2,101					324			998		42			3,465
18				1,286		79	6,814	1,057		400	13,103		19,830	42,569
20				115		12	1,078				466		2,154	3,825
21				453		91				1,093	6,592		637	8,866
22				2,570									1,221	3,791
24	843			1,007		797	910			694	12,483		3,174	19,908
26				596							983			1,579
27				454							737		530	1,721
28				1,385										1,385
30				499		174	1,283				3,978			5,934
32				1,403			481							1,884
34				481			65							546
36				1,427		2,511				105	1,611			5,654
42					467									467
45				7	460									467
48	14			191	157	35					781			1,178
54														0
55					49									49
Total -	107,720	7,093	24,138	11,874	1,133	21,631	155,929	1,057	4,533	517,980	121,211	0	1,117,451	2,091,750

Notes: The City of Duluth Sanitary Sewer system includes 8,581 manholes.

ABS - Acrylonitrile Butadiene Styrene
 ACP - Asbestos Cement Pipe
 BRA - Brick Arch
 CBR - Circular Brick Pipe

CI/DI - Cast or Ductile Iron
 CIPP - Cured in Place Pipe
 CMP - Corrugated Metal Pipe
 HDPE - High Density Polyethylene

PVC - Polyvinyl Chloride
 RCA - Reinforced Concrete Arch
 RCP - Reinforced Concrete Pipe
 VCP - Vitrified Clay Pipe

Miles - 396.2

Note: Pipe quantities are derived from Geographic Information System.

SANITARY SEWER ACTIVITIES 2013

ACTIVITY	WORK COMPLETED
Cleaning sanitary sewer pipe	503,561 ft
Televising sanitary sewer pipe	146,047 ft
I & I inspections (Inflow and Infiltration Grant Program)	
Homes inspected	1,549
Sump pumps installed	559
Public informational meetings	4
Contractor meetings	1
Laterals rehabilitated	346
Inspections for connections and disconnections	128
Dye testing	As needed
Field sampling	As needed
Flow monitoring	Ongoing with approximately 25 flow monitoring units

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**Clean Water Utility
Statement of Net Income
For The Year Ended December 31, 2012 and 2013
(Unaudited)**

	2012		2013
<u>Operating Revenue</u>			
Charges for Services	\$ <u>1,833,354</u>		\$ <u>1,806,788</u>
Total Operating Revenue	\$ <u>1,833,354</u>		\$ <u>1,806,788</u>
<u>Operating Expense</u>			
Clean Water Expense	<u>1,389,433</u>		<u>1,657,641</u>
Total Operating Expense	<u>(1,389,433)</u>		<u>(1,657,641)</u>
Operating Income	<u>443,921</u>		<u>149,147</u>
<u>Other Revenue</u>			
Contributed Assets	2,388,631		1,634,691
Interest Income	<u>18,820</u>		<u>6,664</u>
Total Other Revenue	<u>2,407,451</u>		<u>1,641,355</u>
<u>Other Expenses and Transfers</u>			
Transfers to Other Funds			
Investing Activities	17,880		9,607
Interest on Long Term Debt	<u>171,809</u>		<u>190,247</u>
Total Other Expenses and Transfers	<u>(189,689)</u>		<u>(199,854)</u>
Net Income or Loss	<u>\$ <u>2,661,683</u></u>		<u>\$ <u>1,590,648</u></u>

**Clean Water Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)**

	Assets	
	2012	2013
<u>Current Assets</u>		
Cash	\$ 1,338,833	\$ 369,715
Accounts Receivable (Net)	214,647	192,241
Due from Other Governments	711,588	0
Total Current Assets	\$ 2,265,068	\$ 561,956
<u>Utility Plant</u>		
In Service	12,836,273	35,853,559
Construction	24,969,782	4,348,924
Less Accumulated Depreciation	(244,201)	(616,450)
Total Utility Plant Assets	37,561,854	39,586,033
<u>Other Assets</u>		
Issuance Costs	24,510	0
Total Other Assets	24,510	0
Total Assets	\$ 39,851,432	\$ 40,147,989

**Clean Water Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)**

	Liabilities & Net Assets	
	2012	2013
<u>Current Liabilities</u>		
Accounts Payable	\$ 81,067	\$ 150,390
Contracts Payable	1,012,074	177,423
Notes Payable	1,107,175	1,142,000
Due to Other Governments	875	23,000
Interest Payable	68,196	67,535
Deferred Revenue	9,778	6,775
Bonds Payable	11,496	12,188
Total Current Liabilities (Payable from Current Assets)	\$ 2,290,661	\$ 1,579,311
<u>Long Term Liabilities</u>		
Bonds Payable	12,647,689	12,101,646
Notes Payable	155,540	143,352
Total Long Term Liabilities	12,803,229	12,244,998
Total Liabilities	15,093,890	13,824,309
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	23,664,464	26,186,847
Unrestricted	1,093,078	136,833
Total Net Assets	24,757,542	26,323,680
Total Liabilities and Net Assets	\$ 39,851,432	\$ 40,147,989

**City of Duluth
Clean Water Utility Bonds and Notes Payable
December 31, 2013**

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2012</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2013</u>
Clean Water Utility Bonds								
Revenue and General Obligation	\$ 200,000	2/19/2009	2/1/2024	\$ 167,036	\$ 0	\$ 0	\$ 11,496	\$ 155,540
Bond Total				<u>\$ 167,036</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 11,496</u>	<u>\$ 155,540</u>
Notes								
Public Facilities Authority	\$ 796,835	6/17/2009	8/20/2024	\$ 669,000	\$ 0	\$ 0	\$ 50,000	\$ 619,000
Public Facilities Authority	2,414,150	12/10/2009	8/20/2024	2,087,000	0	0	155,000	1,932,000
Public Facilities Authority	9,087,385	8/31/2010	8/20/2025	7,383,334	0	11,505	569,000	6,825,839
Public Facilities Authority	3,753,059	8/31/2010	8/20/2025	3,295,000	0	0	235,000	3,060,000
Public Facilities Authority	278,149	11/18/2011	8/20/2021	160,786	0	106,214	29,000	238,000
Public Facilities Authority	282,620	11/30/2011	8/20/2021	87,413	0	102,416	29,000	160,829
Public Facilities Authority	600,175	9/10/2012	8/20/2022	72,331	0	375,822	40,175	407,978
Note Total				<u>\$ 13,754,864</u>	<u>\$ 0</u>	<u>\$ 595,957</u>	<u>\$ 1,107,175</u>	<u>\$ 13,243,646</u>
Total Clean Water Utility Bonds and Notes				<u>\$ 13,921,900</u>	<u>\$ 0</u>	<u>\$ 595,957</u>	<u>\$ 1,107,175</u>	<u>\$ 13,399,186</u>

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2014	\$ 1,154,188	\$ 189,879	\$ 1,344,067
2015	1,168,189	182,423	1,350,612
2016	1,184,881	166,209	1,351,090
2017	1,202,435	149,752	1,352,187
2018	1,217,434	133,030	1,350,464
2019	1,234,989	116,039	1,351,028
2020	1,252,682	98,770	1,351,452
2021	1,269,235	81,231	1,350,466
2022	1,225,236	63,432	1,288,668
2023	1,176,789	45,939	1,222,728
2024	1,194,482	28,812	1,223,294
2025	934,000	11,750	945,750
	<u>\$ 14,214,540</u>	<u>\$ 1,267,266</u>	<u>\$ 15,481,806</u>

**Clean Water Fund
Schedule of Fixed Assets
Year Ending December 31, 2013**

	<u>Balance Jan. 1, 2013</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2013</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 525,000	\$ 0	\$ 0	\$ 525,000	\$ 0	\$ 525,000
Infrastructure	12,139,155	23,017,286	0	35,156,441	495,967	34,660,474
Equipment and Tools	172,118	0	0	172,118	120,483	51,635
Work in Progress	<u>24,969,782</u>	<u>2,398,944</u>	<u>23,019,802</u>	<u>4,348,924</u>	<u>0</u>	<u>4,348,924</u>
Total	<u>\$ 37,806,055</u>	<u>\$ 25,416,230</u>	<u>\$ 23,019,802</u>	<u>\$ 40,202,483</u>	<u>\$ 616,450</u>	<u>\$ 39,586,033</u>

STORMWATER

**Stormwater Utility
Statement of Net Income
For The Year Ended December 31, 2012 and 2013
(Unaudited)**

	2012		2013
<u>Operating Revenue</u>			
Stormwater Charges	\$ 4,777,794		\$ 4,704,073
Other	20,372		49,810
Total Operating Revenue	\$ 4,798,166		\$ 4,753,883
<u>Operating Expense</u>			
Director's Office	69,424		59,900
Capital Related Expenses	517,535		628,366
Utility General Expense	459,139		418,301
Engineering	515,564		633,054
Utility Operations	1,643,365		1,607,717
Customer Service	170,668		199,059
Total Operating Expense	(3,375,695)		(3,546,397)
Operating Income	1,422,471		1,207,486
<u>Other Revenue</u>			
Grants Non-Capital	2,705		10,000
Capital Contributions	9,894		21,951
Gain or Loss on Sale of Fixed Assets	50,000		0
Transfer from Other Funds			
Street Lighting	4,920		4,920
Interest Income	22,463		1,881
Total Other Revenue	89,982		38,752
<u>Other Expenses and Transfers</u>			
Bond Interest	65,101		59,043
Transfers to Other Funds			
Investing Activities	20,730		23,031
Other Transfers	498,792		413,421
Total Other Expenses and Transfers	(584,623)		(495,495)
Net Income or Loss	\$ 927,830		\$ 750,743

**Stormwater Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)**

	Assets & Deferred Outflows	
	2012	2013
<u>Current Assets</u>		
Cash	\$ 2,379,526	\$ 2,524,850
Accounts Receivable	464,520	467,584
Special Assessments	22,399	25,636
Due from Other Funds	21,186	171,236
Due from Other Governments	0	10,257
Inventory	69,037	72,388
Total Current Assets	\$ 2,956,668	\$ 3,271,951
<u>Utility Plant</u>		
In Service	15,684,658	16,762,596
Construction	1,044,974	579,075
Less Accumulated Depreciation	(3,010,244)	(3,472,239)
Total Utility Plant Assets	13,719,388	13,869,432
<u>Other Assets</u>		
Bond Issuance Charges	24,270	0
Total Other Assets	24,270	0
Total Assets	16,700,326	17,141,383
<u>Deferred Outflows</u>		
Deferred Loss from Debt Refunding	0	14,650
Total Deferred Outflows	0	14,650
Total Assets and Deferred Outflows	\$ 16,700,326	\$ 17,156,033

**Stormwater Utility
Statement of Net Assets
For The Year Ending December 31, 2012 and 2013
(Unaudited)**

	Liabilities & Net Assets	
	2012	2013
<u>Current Liabilities</u>		
Accounts Payable	\$ 45,116	\$ 24,218
Contracts Payable	114,304	96,105
Due to Other Funds	62,137	30,963
Due to Component Units	0	18,000
Due to Other Governments	5,000	7,926
Accrued Interest Payable	26,986	24,477
Accrued Salaries Payable	65,242	79,334
Vacations Payable	91,520	91,415
Deferred Revenue	14,142	13,135
Bonds Payable	204,552	210,409
Total Current Liabilities (Payable from Current Assets)	\$ 628,999	\$ 595,982
<u>Long Term Liabilities</u>		
Vacations Payable	17,594	2,748
Net Other Post Employment Benefits	71,327	44,928
Bonds Payable	1,703,610	1,493,201
Less Unamortized Bond Discount or Premium	5,594	19,499
Total Long Term Liabilities	1,798,125	1,560,376
Total Liabilities	2,427,124	2,156,358
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	11,829,902	12,160,973
Unrestricted	2,443,300	2,838,702
Total Net Assets	14,273,202	14,999,675
Total Liabilities and Net Assets	\$ 16,700,326	\$ 17,156,033

**City of Duluth
Stormwater Utility Bonds Payable
December 31, 2013**

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2012</u>	<u>Issued</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2013</u>
Stormwater Utility							
Bonds							
Revenue and General Obligation	\$ 1,705,000	9/7/2006	2/1/2022	\$ 1,250,000	\$ 0	\$ 100,000	\$ 1,150,000
Revenue and General Obligation Refunding	755,000	11/23/2010	2/1/2018	658,161	0	104,551	553,610
Bond Total				\$ 1,908,161	\$ 0	\$ 204,551	\$ 1,703,610
Total Stormwater Utility Bonds				<u>\$ 1,908,161</u>	<u>\$ 0</u>	<u>\$ 204,551</u>	<u>\$ 1,703,610</u>

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2014	\$ 210,409	\$ 56,115	\$ 266,524
2015	218,836	49,689	268,525
2016	224,694	43,022	267,716
2017	233,121	35,551	268,672
2018	241,550	27,234	268,784
2019	135,000	20,300	155,300
2020	140,000	14,800	154,800
2021	145,000	9,100	154,100
2022	155,000	3,100	158,100
	<u>\$ 1,703,610</u>	<u>\$ 258,911</u>	<u>\$ 1,962,521</u>

**Stormwater Fund
Schedule of Fixed Assets
Year Ending December 31, 2013**

	<u>Balance Jan. 1, 2013</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2013</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 8,481	\$ 0	\$ 0	\$ 8,481	\$ 0	\$ 8,481
Infrastructure	11,730,238	894,628	0	12,624,866	1,115,762	11,509,104
Buildings and Structures	1,401,897	0	0	1,401,897	266,360	1,135,537
Equipment and Tools	2,544,042	208,022	24,712	2,727,352	2,090,117	637,235
Work in Progress	<u>1,044,974</u>	<u>446,585</u>	<u>912,484</u>	<u>579,075</u>	<u>0</u>	<u>579,075</u>
Total	<u>\$ 16,729,632</u>	<u>\$ 1,549,235</u>	<u>\$ 937,196</u>	<u>\$ 17,341,671</u>	<u>\$ 3,472,239</u>	<u>\$ 13,869,432</u>

LENGTH OF STORM SEWERS IN FEET 2013

Dia. Inch.	BR	CMP	CPD	CI/DI	HDPE	NCP	PPC	PVC	RCP	STN	STL	TP	VCP	UNK	Totals
3									55			840			895
4			32,760					17,003	162		13	135		130,507	180,580
6		2,872		128				18,635	61			287		18,208	40,191
8		270	50	151	34	48		12,967	95			126	469	4,617	18,827
10		2,136		303	39			2,633	9,609				1,870	24,564	41,154
12		48,649	4,305	1,963	21,264	780		22,226	436,303		109		1,228	80,357	617,184
13									47						47
14		59		38					233					301	631
15		3,578		44	3,578	169	52	1,507	187,474				748	48,778	245,928
16		89		802					212					781	1,884
17														91	91
18		7,349	181		4,014	50		1,957	122,002		52		709	32,822	169,136
20		50		90					1,310		235			4,190	5,875
21		966	43	63				5	39,134				571	8,313	49,095
22									1,140					1,481	2,621
23														38	38
24	334	4,529		185	733			622	73,834	95	67		623	25,227	106,249
26	1,732				160			47	4,042					13,680	19,661
27					28				16,156					1,864	18,048
28	663	64							3,639					2,691	7,057
29									806					432	1,238
30		1,260			1,666				41,370					11,422	55,718
31									385						385
32	372	67			24			182	3,283	62				1,487	5,477
33									693						693
34														319	319
36	252	1,667			137	460			35,179	157				14,669	52,521
40					42				1,300	659				209	2,210
42				304				188	15,196					2,239	17,927
44		212							4,040					480	4,732
45							53		696					455	1,204
46														77	77
48	373	477			53		104		17,963	433				10,875	30,278
50	240								296					36	572

LENGTH OF STORM SEWERS IN FEET 2013

Dia. Inch.	BR	CMP	CPD	CI/DI	HDPE	NCP	PPC	PVC	RCP	STN	STL	TP	VCP	UNK	Totals
51									1,063						1,063
52									417						417
54							70		13,574					5,020	18,664
56									89					65	154
58									630					789	1,419
59														105	105
60		432				28	1,191		3,398	263				4,867	10,179
62									631					63	694
65									83					366	449
66	9								680	80				265	1,034
72		155					372		2,431	281				3,430	6,669
73														79	79
78		116					228		399						743
84	468	171						138	515	1,170				1,862	4,324
88	104						50		233						387
96							81	365	439	65				617	1,567
108									115					239	354
120									1,022					1,468	2,490
122									54						54
128									63	791				626	1,480
132									170					716	886
144									113						113
156									101						101
192									49						49
UNK	774	412			111			2,142	5,987	1,109				98,027	108,562
	5,321	75,580	37,339	4,071	31,883	1,535	2,201	80,617	1,048,971	5,165	476	1,388	6,218	559,814	1,860,579

Note: The Storm Sewer system also includes 12,522 catch basins and 5,744 manholes.
Pipe quantities are derived from Geographic Information System.

BR - Brick
 CMP - Corrugated Metal
 CPD - Corrugated Polyethylene Drainage Pipe
 CI/DI - Cast or Ductile Iron
 HDPE - High Density Polyethylene

NCP - Non-Reinforced Concrete Perforated Pipe
 PPC - Pour-in-Place Concrete
 PVC - Polyvinyl Chloride
 RCP - Reinforced Concrete
 STN - Stone

STL - Steel
 TP - Thermoplastic
 VCP - Vitrified Clay Pipe
 UNK - Unknown

DULUTH CREEKS AND STREAMS

Creek or Stream	Drainage Area (square miles)
Amity	16.60
58th Ave E	0.59
50th Ave E	0.63
47th Ave E	0.36
43rd Ave E	0.59
40th Ave E	0.45
38th Ave E	0.03
37th Ave E	0.13
34th Ave E	0.53
Tischer	7.30
Chester	7.30
Oregon	0.85
Brewery	1.66
Greys	0.63
Clarkhouse	1.00
Buckingham	1.10
Miller	9.70
Coffee	1.76
Merritt	2.30
32nd Ave W	0.73
41st Ave W	0.36
Keene	6.40

Creek or Stream	Drainage Area (square miles)
44th Ave W	0.78
49th Ave W	0.80
62nd Ave W	0.90
Kingsbury	8.60
68th Ave W	0.15
79th Ave W	0.14
82nd Ave W	0.26
Knowlton	1.56
84th Ave W	0.23
86th Ave W	0.08
Gogebic Street	0.34
Lenroot Street	0.61
Stewart Street	1.97
Morgan Park	1.31
U. S. Steel	2.70
Gary Street	0.33
Bowser Street	0.08
Heard Street	0.06
Sargent	3.30
Fond du Lac	0.58
Mission	10.30
Lester River	35.60

MPCA MS4 CREEK DATA

MS4 Discharge Waterbodies	Water Quality Status	Cause of Impairment	TMDL Development Status	Other
Lake Superior	ORVW Impaired	Mercury (fish tissue) PCB (fish tissue)	Not started	Restricted Discharge Area
St Louis River	Impaired	Mercury (fish tissue and water column) PCB (fish tissue and water column) DDT Dieldrin Dioxin Toxaphene Fecal Coliform Aquatic Macroinvertebrate Bioassessments	Not started*	Area of Concern & Protected Water
Amity Creek	Impaired	Turbidity	Underway	Trout stream
E Br Amity	Impaired	Turbidity	Underway	Trout stream
Lester River	Impaired	Turbidity & Mercury (water column)	Underway (Turbidity)	Trout stream
Twin Ponds- Buckingham Creek	Impaired (Upper Twin Ponds)	PCB (fish tissue)- Upper Twin Mercury (fish tissue)- South Twin	Not started	Trout stream
Miller Creek	Impaired	Temperature Lack of coldwater assemblage Aquatic Macroinvertebrates E. coli Chloride	Study started for temp. and Lack of coldwater assemblage TMDL started	Trout stream
Chester Creek				Trout stream
E Br Chester				Trout stream
Keene Creek		E. coli		Trout stream
Kingsbury Creek		Fish Bioassessment Aquatic Macroinvertebrates		Trout stream
Mission Creek				Trout stream
Sergeant Creek		E. coli		Trout stream
Stewart Creek		E. coli		Trout stream
Tischer Creek				Trout stream
58th Ave E				
50th Ave E				
47th Ave E				

MPCA MS4 CREEK DATA

MS4 Discharge Waterbodies	Water Quality Status	Cause of Impairment	TMDL Development Status	Other
43rd Ave E				
38th Ave E				
37th Ave E				
34th Ave E				
Oregon				
Brewery				
Greys				
Clarkhouse				
Coffee				Trout stream
Merritt				Trout stream
32nd Ave W				
41st Ave W				
44th Ave W				
49th Ave W				
62nd Ave W				
68th Ave W				
79th Ave W				
82nd Ave W				
Knowlton				Trout stream
84th Ave W				
85th Ave W				
Gogebic St				
Lenroot St				
Morgan Park				
U.S. Steel				
Gary St				
Bowser				
Heard St				

*Not listed as underway in the MPCA status file:

<http://www.pca.state.mn.us/index.php/view-document.html?gid=8533>

STORMWATER UTILITY ACTIVITIES 2013

ACTIVITY	WORK COMPLETED
Cleaning creeks	2,200 ft
Televising storm sewer pipe	5,569 ft
Line flushing	452 lines
Manhole/catch basin repairs	200
Ditch line (dug or repaired and seeded or sodded)	8,765 ft
Culverts repaired	81
Steaming:	
Steamed culverts and ditches blocked with ice	124
Sediment trap cleaning	2 Cleaned, 20 Inspected
Sewer calls	264
Presentations:	
Public	27
Staff	14
School presentations, school group, children's groups	5
Radio, television and newspaper articles	1
Regional conferences	2