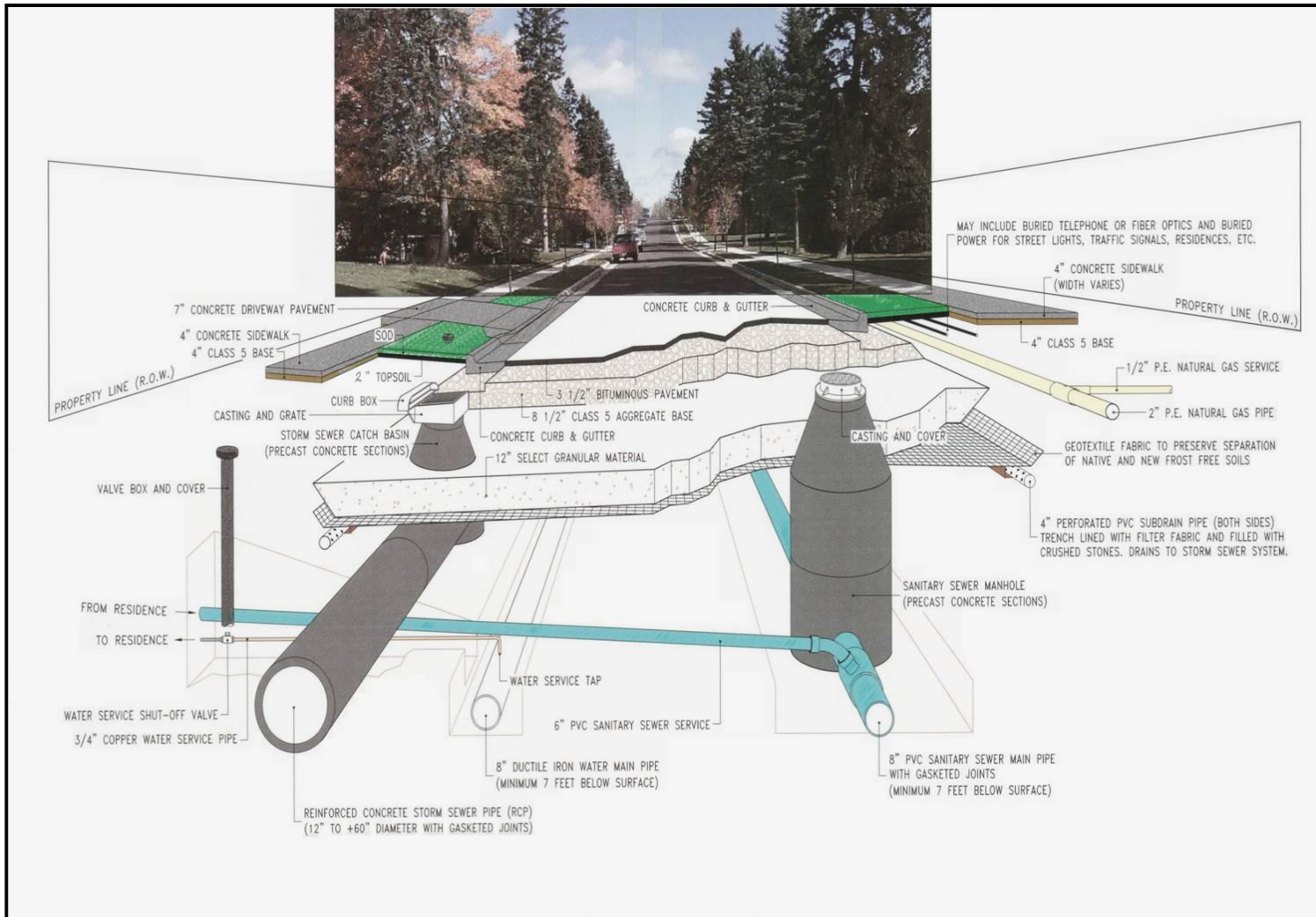


CITY OF DULUTH



**Public Works & Utilities Department
2011 Annual Report**

CONTENTS

Officers and Staff	1	
Organizational Chart	2	Front cover photo: Schematic of utilities underground
Water Utility:		
Statement of Net Income	3	
Statement of Net Assets	4-5	
Bonds, Notes, and Capital Leases Payable	6	
Schedule of Fixed Assets	7	
Water Pumping Station Expense	8	
Water Plant Statistics	9	
Water Purification and Analysis	10-13	
Water Distribution Properties	14-18	
Water Activities	19-20	
Gas Utility:		
Statement of Net Income	21	
Statement of Net Assets	22-23	
Bonds and Capital Leases Payable	24	
Schedule of Fixed Assets	25	
Gas Statistics	26	
Gas Analysis	27	
Gas Mains in Service	28	
Gas Activities	29-30	
Sewer Utility:		
Statement of Net Income	31	
Statement of Net Assets	32-33	
Bonds, Notes and Capital Leases Payable	34	
Schedule of Fixed Assets	35	
Sewer Pumping Stations - Sewage Pumping Equipment	36-40	
Sewer Lines	41	
Sewer Activities	42	
Clean Water Utility:		
Statement of Net Income	43	
Statement of Net Assets	44-45	
Bonds and Notes Payable	46	
Schedule of Fixed Assets	47	
Stormwater Utility:		
Statement of Net Income	48	
Statement of Net Assets	49-50	
Bonds Payable	51	
Schedule of Fixed Assets	52	
Stormwater Pipes	53-54	
Creeks and Streams	55-57	
Stormwater Activities	58	

OFFICERS OF THE DEPARTMENT

Mayor Don Ness
Chief Administrative Officer Dave Montgomery

City Council Public Works & Utilities Committee
 Councilor Daniel Hartman

Duluth Public Utilities Commission

John Bruggeman	Councilor Patrick Boyle
Patrick Huston, Vice President	Councilor Jay Fosle
Jennifer Julsrud, President	Councilor Daniel Hartman
Linda Sellner	

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 Steve Lipinski
Operations Manager, Gas & Water Supply Howard Jacobson
Safety & Training Officer Julie Baker
Financial Analyst Clint Thursby

**W
A
T
E
R**

Water Utility
Statement of Net Income
For The Year Ended December 31, 2010 and 2011
(Unaudited)

	2010		2011
<u>Operating Revenue</u>			
Metered Water Sales	\$ 11,745,982		\$ 11,475,356
Other	260,524		268,154
Total Operating Revenue	\$ 12,006,506		\$ 11,743,510
<u>Operating Expense</u>			
Director's Office	58,447		59,099
Capital Related Expenses	1,420,392		1,504,032
Utility General Expense	2,232,128		1,923,394
Engineering	375,596		376,999
Utility Operations	2,800,911		2,984,095
Water Treatment and Pumping	2,485,622		2,595,583
Customer Service	1,316,810		1,366,419
Total Operating Expense	(10,689,906)		(10,809,621)
Operating Income	1,316,600		933,889
<u>Other Revenue</u>			
Grants Non-Capital	1,250		0
Contributed Capital	360		4,131
Gain or Loss on the Sale of Fixed Assets	2,828		(2,363)
Intergovernmental	16,919		16,919
Interest Income	38,627		4,205
Total Other Revenue	59,984		22,892
<u>Other Expenses and Transfers</u>			
Transfer to Other Funds			
Investing Activities	22,021		11,513
Non-Capital Improvements	337,626		336,296
Interest on Long Term Debt	304,164		297,135
Total Other Expenses and Transfers	(663,811)		(644,944)
Net Income or Loss	\$ 712,773		\$ 311,837

Water Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)

	Assets	
	2010	2011
<u>Current Assets</u>		
Cash	\$ 1,804,178	\$ 0
Restricted Cash and Equivalents:		
Minnesota Water Connection Fees	89,040	89,040
Accounts Receivable (Net)	1,168,357	1,215,293
Special Assessments	67,630	62,422
Due from Other Funds	85,184	14,515
Due from Other Governments	775,732	221,108
Inventory	833,478	840,657
Total Current Assets	\$ 4,823,599	\$ 2,443,035
<u>Utility Plant</u>		
In Service	68,368,255	70,033,563
Construction	5,042,079	8,212,230
Less Accumulated Depreciation	(29,559,635)	(30,905,954)
Total Utility Plant Assets	43,850,699	47,339,839
<u>Other Assets</u>		
Special Assessments Receivable	211,274	153,548
Issuance Costs	59,379	55,361
Total Other Assets	270,653	208,909
Total Assets	\$ 48,944,951	\$ 49,991,783

Water Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)

	Liabilities & Net Assets	
	2010	2011
<u>Current Liabilities</u>		
Accounts Payable	\$ 215,922	\$ 247,542
Contracts Payable	922,011	624,147
Notes Payable	543,217	689,748
Leases Payable	182,061	189,026
Due to Other Funds	1,655,441	175,796
Interfund Loan Payable	0	664,867
Due to Other Governments	146,467	140,108
Accrued Interest Payable	105,690	121,380
Accrued Salaries Payable	153,670	150,792
Vacations Payable	235,036	240,666
Deferred Revenue	104,949	60,439
Customer Deposits	10,000	10,000
Bonds Payable	186,000	399,428
	<u>\$ 4,460,464</u>	<u>\$ 3,713,939</u>
Total Current Liabilities (Payable from Current Assets)		
<u>Long Term Liabilities</u>		
Notes Payable	3,882,049	5,939,608
Vacations Payable	15,574	30,816
Leases Payable	2,958,988	2,769,962
Net Other Post Employment Benefits	245,893	244,520
Bonds Payable	3,315,000	2,915,572
Less Unamortized Bond Discount or Premium	10,792	9,338
	<u>10,428,296</u>	<u>11,909,816</u>
Total Long Term Liabilities		
Total Liabilities	<u>14,888,760</u>	<u>15,623,755</u>
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	32,831,971	34,482,518
Unrestricted	1,224,220	(114,490)
	<u>34,056,191</u>	<u>34,368,028</u>
Total Net Assets		
Total Liabilities and Net Assets	<u>\$ 48,944,951</u>	<u>\$ 49,991,783</u>

City of Duluth
Water Utility Bonds, Notes and Capital Leases Payable
December 31, 2011

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2010</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2011</u>
Water Utility								
Bonds								
Revenue and General Obligation	1,120,000	12/19/2006	2/1/2022	950,000	0	0	65,000	885,000
Revenue and General Obligation Refunding	950,000	12/13/2007	2/1/2016	740,000	0	0	110,000	630,000
Revenue and General Obligation	196,000	2/19/2009	2/1/2024	186,000	0	0	11,000	175,000
Revenue and General Obligation Refunding	1,625,000	11/23/2010	2/1/2018	1,625,000	0	0	0	1,625,000
Bond Total				\$ 3,501,000	\$ 0	\$ 0	\$ 186,000	\$ 3,315,000
Notes								
Public Facilities Authority	\$ 870,000	8/25/2003	8/20/2018	\$ 516,619	\$ 0	\$ 0	\$ 58,299	\$ 458,320
Public Facilities Authority	1,971,532	7/2/2004	8/20/2018	1,160,000	0	0	133,000	1,027,000
Public Facilities Authority	1,698,450	10/28/2009	8/20/2019	1,508,363	0	0	164,000	1,344,363
Public Facilities Authority	1,371,653	8/31/2010	8/20/2025	532,514	0	652,844	82,653	1,102,705
Public Facilities Authority	3,534,265	8/31/2010	8/20/2025	707,770	0	1,974,928	105,265	2,577,433
Public Facilities Authority	1,605,655	11/18/2011	8/20/2026	0	0	119,535	0	119,535
Note Total				\$ 4,425,266	\$ 0	\$ 2,747,307	\$ 543,217	\$ 6,629,356
Capital Leases								
AMR System	\$ 3,443,490	7/12/2007	2/1/2024	\$ 3,141,049	\$ 0	\$ 0	\$ 182,061	\$ 2,958,988
Capital Lease Total				\$ 3,141,049	\$ 0	\$ 0	\$ 182,061	\$ 2,958,988
Total Water Utility Bonds, Notes and Capital Leases				\$ 11,067,315	\$ 0	\$ 2,747,307	\$ 911,278	\$ 12,903,344

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2012	\$ 1,278,202	\$ 304,059	\$ 1,582,261
2013	1,413,173	304,316	1,717,489
2014	1,439,320	272,598	1,711,918
2015	1,477,288	239,960	1,717,248
2016	1,509,020	206,282	1,715,303
2017	1,403,596	173,199	1,576,795
2018	1,435,493	140,657	1,576,150
2019	974,846	111,004	1,085,850
2020	816,251	90,450	906,701
2021	837,017	71,107	908,124
2022	852,156	51,145	903,302
2023	773,684	32,652	806,336
2024	640,915	15,656	656,571
2025	483,000	7,056	490,056
2026	123,000	1,502	124,502
	\$ 15,456,963	\$ 2,021,643	\$ 17,478,606

Water Fund
Schedule of Fixed Assets
Year Ending December 31, 2011

	<u>Balance Jan.</u> <u>1, 2011</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec.</u> <u>31, 2011</u>	<u>Accumulated</u> <u>Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 203,700	\$ 0	\$ 0	\$ 203,700	\$ 0	\$ 203,700
Infrastructure	43,446,503	1,392,160	0	44,838,663	15,110,228	29,728,435
Buildings and Structures	17,204,020	0	0	17,204,020	11,781,085	5,422,935
Equipment and Tools	7,514,032	343,794	70,646	7,787,180	4,014,641	3,772,539
Work in Progress	<u>5,042,079</u>	<u>4,567,163</u>	<u>1,397,012</u>	<u>8,212,230</u>	<u>0</u>	<u>8,212,230</u>
Total	<u>\$ 73,410,334</u>	<u>\$ 6,303,117</u>	<u>\$ 1,467,658</u>	<u>\$ 78,245,793</u>	<u>\$ 30,905,954</u>	<u>\$ 47,339,839</u>

COMPARATIVE STATEMENT, OPERATING EXPENSE OF ALL STATIONS, YEARS 2010 AND 2011

Station	Year	Daily Average Gallons Pumped, Initial Supply	Gallons Pumped	K.W.H. Consumed	Electricity
Lakewood	2011	15,160,273	5,533,500,000	8,091,300	\$ 539,708
	2010	15,844,959	5,783,410,000	9,139,200	\$ 597,290
Middle	2011	2,769,315	1,010,800,000	1,460,400	\$ 119,030
	2010		1,051,100,000	1,409,200	\$ 109,525
Woodland	2011	1,613,013	588,750,000	1,460,400	\$ 119,028
	2010		589,005,000	1,639,200	\$ 128,857
West Duluth	2011	6,840,657	2,496,840,000	542,016	\$ 45,997
	2010		2,597,950,000	640,521	\$ 51,639
Orphanage	2011	332,271	121,279,000	66,240	\$ 7,145
	2010		121,507,000	72,640	\$ 7,633
Highland	2011	114,649	406,847,000	268,736	\$ 24,506
	2010		447,170,000	336,000	\$ 27,615
Arlington	2011	1,914,498	698,792,000	713,280	\$ 61,298
	2010		699,010,000	714,112	\$ 58,265
Lakeside	2011	168,772	61,602,000	70,880	\$ 9,965
	2010		61,721,000	69,090	\$ 10,035
Bay View	2011	551,306	201,227,000	202,880	\$ 22,600
	2010		201,437,000	253,120	\$ 25,892
Proctor	2011	349,717	127,647,000	204,800	\$ 22,417
	2010		127,914,000	253,760	\$ 23,425
Airport	2011	0	unmetered	16443	\$ 1,792
	2010		unmetered	6144	\$ 1,657
TOTALS	2011	29,814,471	11,247,284,000	13,080,932	\$ 973,486
	2010	15,844,959	11,680,224,000	14,526,843	\$ 1,041,833

WATER PLANT STATISTICS

	2011	2010	2009	2008	2007	2006	2005
Water Pumped							
Million Cubic Feet	739.8	773.2	829.1	826	846	832.4	825.1
Water Sold							
Million Cubic Feet	592.6	665.7	658	601	746	697.8	704.7
General & Distribution Operating							
Costs including Maintenance (*)	\$ 9,395,019	\$ 9,275,099	\$ 9,250,685	\$ 9,930,687	\$ 9,545,839	\$ 8,399,508	\$ 7,979,034
Cost per 100 Cubic Feet	\$ 1.5854	\$ 1.3933	\$ 1.4059	\$ 1.6524	\$ 1.2796	\$ 1.2037	\$ 1.1323
Interest charges	\$ 297,135	\$ 304,164	\$ 297,249	\$ 240,761	\$ 305,579	\$ 307,361	\$ 340,199
Cost per 100 Cubic Feet	\$ 0.0501	\$ 0.0457	\$ 0.0452	\$ 0.0401	\$ 0.0410	\$ 0.0440	\$ 0.0483
Depreciation charge	\$ 1,414,602	\$ 1,414,807	\$ 1,252,343	\$ 1,157,899	\$ 1,184,485	\$ 1,124,151	\$ 1,063,447
Cost per 100 Cubic Feet	\$ 0.2387	\$ 0.2125	\$ 0.1903	\$ 0.1927	\$ 0.1588	\$ 0.1611	\$ 0.1509
Total Cost per 100 Cubic Feet	\$ 1.8742	\$ 1.6515	\$ 1.6414	\$ 1.8851	\$ 1.4793	\$ 1.4089	\$ 1.3314
Operating revenue	\$ 11,743,510	\$ 12,006,506	\$ 11,944,996	\$ 11,353,762	\$ 12,150,049	\$ 10,916,443	\$ 10,282,800
Revenue per 100 Cubic Feet Sold	\$ 1.9817	\$ 1.8036	\$ 1.8153	\$ 1.8891	\$ 1.6287	\$ 1.5644	\$ 1.4592
Water meters in service	29,069	30,317	27,950	28,016	28,087	27,948	27,809
Water main miles	427.5	427.3	425.2	424.4	424.3	408.3	408.22
Water meters per mile of main	68.00	70.95	65.73	66.01	66.20	68.45	68.12
Hydrants on system	2,577	2,535	2,506	2,500	2,396	2,373	2,363

(*) Depreciation not included

WATER PURIFICATION 2011 LAKEWOOD STATION

Month	Total Number of Gallons Treated	Average Water Temperature at Treatment Bldg Degree F	Ammonia Lbs. Used	Chlorine Lbs. Used
January	464,690,000	35.2	1,981	7,162
February	421,880,000	34.2	1,831	6,250
March	452,500,000	33.0	1,963	7,075
April	429,470,000	35.0	1,864	6,513
May	428,880,000	37.4	1,882	6,431
June	463,990,000	41.8	2,000	7,312
July	536,230,000	50.1	2,303	9,088
August	521,830,000	42.2	2,263	7,946
September	473,370,000	46.9	2,073	7,626
October	453,800,000	49.8	1,910	7,663
November	421,750,000	42.0	1,857	6,866
December	465,110,000	37.7	2,027	7,164
TOTAL	5,533,500,000		23,954	87,096
Average/Month	461,125,000	40.4	1,996	7,258

**2011
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	12.48	12.75
pH	7.84	9.01
Monthly Specific Conductance Micromhos/cm	100.8	125.8
Alkalinity	43.1	45.6
Sulfates	3.24	9.18
Fluorides	0.05	0.99
Turbidity NTU	0.93	0.021
Chlorine	0.00	1.25
Temperature	36.3°F	

WATER TREATMENT 2011

Month	Alum Used Gal.	Fluoride Used Gal.	Turbidity of Effluent NTU
January	7,486	2,157	0.021
February	7,668	1,863	0.020
March	7,492	1,999	0.026
April	7,726	1,864	0.023
May	7,782	1,769	0.021
June	10,279	1,966	0.025
July	12,267	2,368	0.021
August	10,442	2,161	0.022
September	9,085	2,052	0.020
October	8,409	1,596	0.021
November	7,815	1,707	0.020
December	8,497	2,017	0.018
Average/Month	8,746	1,960	0.022

BACTERIOLOGICAL DATA 2011

	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	37	1.19	0.81	0.01	216	0	93	0
February	34	1.65	0.12	0.00	194	0	93	0
March	41	3.41	0.22	0.00	238	0	100	0
April	34	5.18	0.65	0.00	198	0	91	0
May	38	3.50	0.79	0.00	228	0	92	0
June	40	22.45	12.15	0.29	222	0	94	0
July	35	5.77	1.42	0.01	188	0	91	0
August	42	15.43	6.36	0.04	242	0	100	1
September	36	4.44	2.17	0.00	206	0	94	1
October	39	5.03	1.18	0.00	228	0	92	0
November	34	2.47	0.29	0.05	196	0	93	0
December	34	1.12	0.18	0.07	192	0	91	0
TOTAL	444	71.64	N/A	N/A	2,548	0	1,124	2
Average for Month	37.0	5.97	2.20	0.04	212	0	93.7	0.17

LENGTH OF WATER MAINS IN FEET 2011

Diameter Inches	Cast Iron	Ductile Iron	Steel	Copper	Polyvinyl Chloride	High Density Polyethylene	Total	Valves	Vaults
1				818			818	4	0
2	33			1,857		9,020	10,910	24	0
3	868					619	1,487	4	0
4	11,446	2,394					13,840	52	0
6	1,010,581	156,714	1,129		1,727	9,715	1,179,866	2,435	100
8	93,209	95,961	669		310	115,302	305,451	544	37
10	154,347	56,004	6,907			27,123	244,381	413	25
12	160,466	43,781	1,926			11,867	218,040	334	83
14						1,052	1,052	2	0
16	83,676	21,617	10,402				115,695	125	54
18	2,107					2,107	4,214	2	1
20	15,050	1,507	29,262				45,819	27	25
24	8,620	2,091	55			5,029	15,795	11	4
30			2,670				2,670	2	2
36	25,475	11,184	11,369				48,028	29	18
42	181		49,208				49,389	7	7
48							0		0
TOTALS	1,566,059	391,253	113,597	2,675	2,037	181,834	2,257,455	4,015	356
Total Miles -							427.5		
Added in 2011 -							0.52	0	0

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 2011

	Mueller	4"	Mathews		Michigan	Unknown	Waterous	Iowa		Stockholm	Total	Valves on	Lineal Feet
	5"		4 1/2"	5"				5"	4"				
TOTAL IN SERVICE 12/31/2010	141	0	539	0	5	368	1,480	0	2	2	2,535	2,380	49,638
TOTAL IN SERVICE 12/31/2011	145	0	528	0	3	295	1,607	0	2	0	2,577	2,450	54,402

Number of Hydrants added in 2011 - 42

Number of Hydrant Valves added in 2011 - 70

Lineal feet of Hydrant branch main added in 2011 - 2,760

**2011
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	31.50 Feet	284 Feet x 391 Feet	Built 1898, Rebuilt 1938
Endion Reservoir	14,140,000	290.00 Feet	27.80 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	289.75 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
Gary Standpipe					Removed September 1999
Highland Tank #1	100,000	931.00 Feet	22.00 Feet	Diameter 30 Feet	Built 1954
Highland Tank #2	400,000	931.00 Feet	35.00 Feet	Diameter 46 Feet	Built 1972
Bay View Heights Steel Tank	100,000	550.00 Feet	26.00 Feet	Diameter 26 Feet	Built 1972
Proctor Tank	400,000	833.00 Feet	142.00 Feet	Diameter 51.5 Feet	Built 1989
TOTAL	67,272,490				

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	17400
			1 -- 1949	DeLaval		4	1 Unit direct connected to 350 hp, 2300 volt, 60 cycle, GE Induction motor	440	20800
			1 -- 1981	Worthington	Single Stage	1	1 Unit direct connected to 200 hp, 2300 volt, 60 cycle, GE Induction motor	500	11389
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	1200	17400
			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	20800
			1 -- 1981	Worthington	Single Stage	1	1 Unit direct connected to 1000 hp, 2300 volt, 60 cycle GE capacitor induction motor	1185	11389
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	1800	4000
			1 -- 1969	Aurora	Single Stage, One Unit, Centrifugal	4	Direct connected to 250 hp, 2300 volt, 60 cycle, 3-phase Louis Allis Induction motor	1750	2500
			1 -- 1986	Fairbanks-Morse	Single Stage, One Unit, Centrifugal	5	Direct connected to 250 hp, 2300 volt, 60 cycle, 3-phase Siemens-Allis motor	1785	2600
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	1800	2050
			1 -- 1986	Fairbanks Morse Co.		4	Direct connected to 300 hp, 2300 volt, 60 cycle, Siemens-Allis Induction motor	1775	1720
			1 -- 1975	Aurora #421	Two Stage, Centrifugal	5	Direct connected to 240 hp, 2300 volt, 60 cycle, 3-phase Marathon Induction motor	1750	1250

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	1200	6000
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	1750	1000
			1 -- 1961		Single Stage Centrifugal	6	Direct connected to 40 hp, 440 volt, 60 cycle, U.S. Induction motor	1750	1000
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	1800	1200
Arlington	Middle Reservoirs	Arlington Reservoirs	Mar-10	Aurora Type 411 BF Size 6x8x20	Single Stage Centrifugal	3	250 hp, 460 volt, 60 cycle 3-phase Baldor Induction motor with VFD drive	1750	1700
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	1750	1000
Bay View	West Duluth Reservoir	Bay View Tank	2 -- 1973	Aurora	Single Stage Centrifugal	1	Each unit direct connected to 125 hp, 440 volt, 60 cycle, 3-phase U.S. Induction motor	3500	1200
			2-- 2002		Single Stage Centrifugal	2			
Proctor	Bay View Tank	Proctor Standpipe	2 -- 1973	Aurora	Single Stage Centrifugal	1	Each unit direct connected to 125 hp, 440 volt, 60 cycle, 3-phase Louis Allis motor	3500	1200
					Single Stage Centrifugal	2			

WATER UTILITY ACTIVITIES 2011

ACTIVITY	WORK COMPLETED
Repair of water services and mains	175
Main breaks	103
Cut off services	56
Install services	21
Steam requests (hydrants/services)	350
Water leak checks	303
Miscellaneous Customer Service requests	442
Fire hydrants:	
Replace and repair hydrants	110
Steaming	see above
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 2011

ACTIVITY	WORK COMPLETED
Meter Truck: Gauge water service Applications (water & gas) Credit (water & gas) Emergency (water & gas) General (water & gas)	98 7,724 3,201 1,715 1,871
Meter Shop: Water meters repaired Water meters tested Plumbing truck orders (water & gas)	432 939 535

**G
A
S**

Gas Utility
Statement of Net Income
For The Year Ended December 31, 2010 and 2011
(Unaudited)

	2010		2011
<u>Operating Revenue</u>			
Residential Sales	\$ 24,011,273		\$ 25,339,331
Commercial & Industrial - Firm	9,701,095		9,839,027
Commercial & Industrial - Interruptible	4,742,939		4,788,958
Servicing Appliances	592,651		644,140
Other	650,875		669,970
Total Operating Revenue	\$ 39,698,833		\$ 41,281,426
<u>Operating Expense</u>			
Director's Office	68,140		69,198
Capital Related Expenses	1,328,543		1,442,816
Utility General Expense	2,514,117		2,134,586
Engineering	473,434		495,350
Utility Operations	1,909,302		1,956,837
Natural Gas	25,600,021		25,826,660
Customer Service	3,579,616		3,691,426
Total Operating Expense	(35,473,173)		(35,616,873)
Operating Income	4,225,660		5,664,553
<u>Other Revenue</u>			
Grants Non-Capital	1,250		0
Contributed Assets	24,788		37,982
Gain or Loss on Sale of Fixed Assets	3,388		(7,787)
Intergovernmental	23,365		23,365
Interest Income	112,785		120,868
Total Other Revenue	165,576		174,428
<u>Other Expenses and Transfers</u>			
Interest Expense	503,288		295,311
Transfers to Other Funds			
Payment to City in Lieu of Taxes	3,236,527		2,778,918
Investing Activities	106,424		116,237
Non-Capital Improvements	20,000		70,287
Total Other Expenses and Transfers	(3,866,239)		(3,260,753)
Net Income or Loss	\$ 524,997		\$ 2,578,228

Gas Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)

	Assets	
	2010	2011
<u>Current Assets</u>		
Cash	\$ 2,097,198	\$ 915,488
Restricted Cash and Equivalents:		
Customer Deposit	1,855,353	2,155,173
Accounts Receivable (Net)	5,915,392	5,379,440
Special Assessments	12,116	13,125
Due from Other Funds	71,815	20,286
Interfund Loan Receivable	107,108	664,867
Due from Other Governments	107	66
Inventory	878,280	922,456
Prepaid gas	2,778,163	3,024,496
Total Current Assets	\$ 13,715,532	\$ 13,095,397
<u>Utility Plant</u>		
In Service	60,407,245	60,967,771
Construction	1,393,938	2,621,732
Less Accumulated Depreciation	(18,910,363)	(20,047,999)
Total Utility Plant Assets	42,890,820	43,541,504
<u>Other Assets</u>		
Special Assessments Receivable	32,402	30,877
Bond Issuance Charges	47,246	89,645
Advance to Other Funds	1,800,000	1,650,000
Total Other Assets	1,879,648	1,770,522
Total Assets	\$ 58,486,000	\$ 58,407,423

Gas Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)

	Liabilities & Net Assets	
	2010	2011
<u>Current Liabilities</u>		
Accounts Payable	\$ 3,132,134	\$ 2,343,009
Contracts Payable	114,613	379,194
Leases Payable	166,889	173,274
Due to Other Funds	157,302	61,499
Due to Other Governments	83,029	87,497
Accrued Interest Payable	155,326	92,707
Accrued Salaries Payable	184,889	190,828
Accrued Vacations Payable	291,676	325,872
Deferred Revenue	1,264,099	720,383
Customer Deposits	1,322,411	1,389,661
Bonds Payable	821,000	460,957
Total Current Liabilities (Payable from Current Assets)	\$ 7,693,368	\$ 6,224,881
<u>Long Term Liabilities</u>		
Accrued Vacations Payable	62,178	53,032
Leases Payable	2,712,406	2,539,132
Net Other Post Employment Benefits	129,901	0
Bonds Payable	7,115,814	6,079,857
Less Unamortized Bond Discount	(14,472)	145,488
Total Long Term Liabilities	10,005,827	8,817,509
Total Liabilities	17,699,195	15,042,390
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	32,136,429	34,232,441
Unrestricted	8,650,376	9,132,592
Total Net Assets	40,786,805	43,365,033
Total Liabilities and Net Assets	\$ 58,486,000	\$ 58,407,423

City of Duluth
Gas Utility Bonds and Capital Leases Payable
December 31, 2011

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2010</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2011</u>
Gas Utility								
Bonds								
Revenue and General Obligation	6,090,000	12/1/2003	2/1/2019	4,080,000	0	0	4,080,000	0
Revenue and General Obligation	1,190,000	12/19/2006	2/1/2022	1,010,000	0	0	65,000	945,000
Revenue and General Obligation Refunding	2,846,814	12/17/2009	2/1/2017	2,846,814	0	0	376,000	2,470,814
Revenue and General Obligation Refunding	3,125,000	11/29/2011	2/1/2019	0	3,125,000	0	0	3,125,000
Bond Total				\$ 7,936,814	\$ 3,125,000	\$ 0	\$ 4,521,000	\$ 6,540,814
Capital Leases								
AMR System	\$ 3,156,533	7/12/2007	2/1/2024	\$ 2,879,295	\$ 0	\$ 0	\$ 166,889	\$ 2,712,406
Capital Lease Total				\$ 2,879,295	\$ 0	\$ 0	\$ 166,889	\$ 2,712,406
Total Gas Utility Bonds and Capital Leases				<u>\$ 10,816,109</u>	<u>\$ 3,125,000</u>	<u>\$ 0</u>	<u>\$ 4,687,889</u>	<u>\$ 9,253,220</u>

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2012	\$ 634,232	\$ 267,517	\$ 901,749
2013	1,037,883	280,119	1,318,002
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	820,358	73,444	893,803
2020	328,980	50,975	379,955
2021	342,932	38,001	380,933
2022	357,227	24,426	381,653
2023	261,877	12,571	274,448
2024	134,672	2,552	137,224
2025	0	0	0
2026	0	0	0
	<u>\$ 9,253,220</u>	<u>\$ 1,644,189</u>	<u>\$ 10,897,409</u>

Gas Fund
Schedule of Fixed Assets
Year Ending December 31, 2011

	<u>Balance Jan.</u> <u>1, 2011</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec.</u> <u>31, 2011</u>	<u>Accumulated</u> <u>Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 420,815	\$ 0	\$ 0	\$ 420,815	\$ 0	\$ 420,815
Infrastructure	49,641,723	388,752	0	50,030,475	15,680,283	34,350,192
Buildings and Structures	2,592,124	0	0	2,592,124	676,290	1,915,834
Equipment and Tools	7,752,583	282,663	110,889	7,924,357	3,691,426	4,232,931
Work in Progress	<u>1,393,938</u>	<u>1,658,072</u>	<u>430,278</u>	<u>2,621,732</u>	<u>0</u>	<u>2,621,732</u>
Total	<u>\$ 61,801,183</u>	<u>\$ 2,329,487</u>	<u>\$ 541,167</u>	<u>\$ 63,589,503</u>	<u>\$ 20,047,999</u>	<u>\$ 43,541,504</u>

GAS STATISTICS

	2011	2010	2009	2008	2007	2006	2005
Gas sold MMBTU	4,864,262	4,617,923	4,804,897	5,169,299	4,544,616	4,285,167	4,777,330
Cost of gas sold	\$ 25,207,873	\$ 25,014,748	\$ 27,647,451	\$ 42,819,209	\$ 36,093,665	\$ 35,703,140	\$ 41,122,097
Cost per MMBTU sold	\$ 5.1823	\$ 5.4169	\$ 5.7540	\$ 8.2834	\$ 7.9421	\$ 8.3318	\$ 8.6078
Other operating costs, including maintenance(*)	\$ 9,168,387	\$ 9,238,887	\$ 9,243,290	\$ 10,106,846	\$ 9,561,803	\$ 7,952,616	\$ 7,793,937
Cost per MMBTU sold	\$ 1.8848	\$ 2.0007	\$ 1.9237	\$ 1.9552	\$ 2.1040	\$ 1.8558	\$ 1.6314
Interest charges	\$ 295,311	\$ 503,288	\$ 554,975	\$ 505,728	\$ 540,182	\$ 523,749	\$ 548,648
Cost per MMBTU sold	\$ 0.0607	\$ 0.1090	\$ 0.1155	\$ 0.0978	\$ 0.1189	\$ 0.1222	\$ 0.1148
Depreciation charge(**)	\$ 1,240,613	\$ 1,219,538	\$ 1,056,585	\$ 1,088,666	\$ 1,060,245	\$ 999,663	\$ 956,700
Cost per MMBTU sold	\$ 0.2550	\$ 0.2641	\$ 0.2199	\$ 0.2106	\$ 0.2333	\$ 0.2333	\$ 0.2003
Total cost per MMBTU sold	\$ 7.3829	\$ 7.7906	\$ 8.0131	\$ 10.5470	\$ 10.3982	\$ 10.5432	\$ 10.5543
Operating revenue per MMBTU	\$ 8.4867	\$ 8.5967	\$ 9.6227	\$ 11.3061	\$ 10.4177	\$ 11.5200	\$ 11.5600
Gas meters in service	26,592	26,668	26,148	25,983	25,726	25,369	25,085
Gas main miles	510.1	512.4	506	510.2	508	495.34	488.26
Gas transmission miles	5.3	5.3	5.3	5.3	5.3	-	-
Gas meters per mile of main	52.13	52.05	51.68	50.93	50.64	51.22	51.38

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

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

GAS ANALYSIS 2011

Month	Gas Purchased MMBTU	Storage Gas	MMBTU Transport	Consumption w/o Transport MMBTU	Total Transport BTU's	Number of Transport Customers
Beginning Balance		676,382				
January	602,653	-290,868	32,995	635,648	1,006	2
February	500,727	-221,552	28,730	529,457	1,008	2
March	511,313	-106,105	27,870	539,183	1,006	2
April	349,887	-57,857	19,830	369,717	1,008	2
May	278,730	45,198	19,561	298,291	1,008	2
June	334,354	160,172	17,675	352,029	1,007	2
July	312,086	191,581	19,375	331,461	1,008	2
August	333,243	208,949	19,375	352,618	1,008	2
September	384,212	217,975	18,750	402,962	1,008	2
October	440,098	163,303	19,375	459,473	1,008	2
November	391,957	-71,000	23,600	415,557	1,009	2
December	425,002	-224,359	26,680	451,682	1,008	2
Storage Balance		691,819				
Totals	4,864,262		273,816	5,138,078	1,008	2

- withdraw, + inject

LENGTH OF GAS MAINS IN FEET 2011

Diameter - Inches	Polyethylene	Steel	Total	Valves	Vaults
1	38,281	0	38,281	57	0
1 1/4	0	2,963	2,963	30	0
2	1,721,164	32,124	1,753,288	846	1
3	347,680	10,814	358,494	232	0
4	0	50,580	50,580	61	4
6	48,926	81,062	129,988	96	8
8	7,170	151,349	158,519	63	3
10	0	93,336	93,336	25	5
12	0	12,142	12,142	9	2
14	0	4,116	4,116	0	0
16	0	91,646	91,646	9	4
Totals	2,163,221	530,132	2,693,353	1,428	27

Total Miles Gas Main	510.1
Added in 2011	2.12
Pressure Regulators	16
Gas Valves added in 2011	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 2011

ACTIVITY	WORK COMPLETED
SERVICES AND MAINS	
Installations	105
Cutoffs	73
Repaired services and mains (not considered hits)	32
Rerouted/replaced	18
Lowered gas services/mains	1
Hits	34

CUSTOMER SERVICE DIVISION GAS ACTIVITIES 2011

ACTIVITY	WORK COMPLETED
Service Workorders Completed:	
Appliance service	3,930
Furnace cleaning	3,017
Tin shop	407
Meter Truck:	
Applications (water & gas)	7,724
Credit (water & gas)	3,201
Emergency (water & gas)	1,715
General (water & gas)	1,871
Meter Shop:	
Gas meters repaired	227
Gas meters tested	532
Plumbing truck orders (water & gas)	535
Other:	
Gas leak detection surveys	13,307
Inspect and paint gas meters and risers	2,971
Gas meter visual verification and safety check	18,478
Skips/Previewers	1,806

**S
E
W
E
R**

Sewer Utility
Statement of Net Income
For The Year Ended December 31, 2010 and 2011
(Unaudited)

	2010		2011
<u>Operating Revenue</u>			
General Sewage Revenue	\$ 17,239,952		\$ 17,006,172
Other	159,308		149,513
Total Operating Revenue	\$ 17,399,260		\$ 17,155,685
<u>Operating Expense</u>			
Director's Office	54,086		54,101
Capital Related Expenses	1,305,381		1,376,088
Utility General Expense	1,102,041		1,141,343
Engineering	333,760		376,512
Utility Operations	1,923,233		1,876,190
Wastewater Treatment	7,695,814		8,743,111
Inflow and Infiltration	1,871,642		1,496,974
Customer Services	486,239		446,479
Total Operating Expense	(14,772,196)		(15,510,798)
Operating Income	2,627,064		1,644,887
<u>Other Revenue</u>			
Grants Non-Capital	1,250		0
Contributed Assets	280,876		60,987
Gain or Loss on Sale of Fixed Assets	720		0
Transfer from Other Funds			
Community Development Block Grant	222,124		0
Intergovernmental	8,283		8,283
Interest Income	38,886		52,391
Total Other Revenue	552,139		121,661
<u>Other Expenses and Transfers</u>			
Transfer to Other Funds			
Investing Activities	29,383		30,076
Other Transfers	50,000		33,215
Interest on Long Term Debt	661,648		605,429
Total Other Expenses and Transfers	(741,031)		(668,720)
Net Income or Loss	\$ 2,438,172		\$ 1,097,828

**Sewer Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)**

	Assets	
	2010	2011
<u>Current Assets</u>		
Cash	\$ 3,240,019	\$ 821,775
Restricted Cash and Equivalents:		
Construction	168,544	8,634
Accounts Receivable (Net)	1,704,203	1,720,639
Special Assessments	21,616	18,375
Due from Other Funds	62,935	6,740
Due from Other Governments	221	221
Inventory	52,436	137,841
Prepays	<u>235,069</u>	<u>225,000</u>
Total Current Assets	\$ <u>5,485,043</u>	\$ <u>2,939,225</u>
<u>Utility Plant</u>		
In Service	59,262,869	60,829,379
Construction	<u>1,650,724</u>	<u>3,152,074</u>
	<u>(11,541,683)</u>	<u>(12,695,872)</u>
Total Utility Plant Assets	<u>49,371,910</u>	<u>51,285,581</u>
<u>Other Assets</u>		
Special Assessments Receivable	134,903	110,699
Issuance Costs	<u>171,166</u>	<u>207,351</u>
Total Other Assets	<u>306,069</u>	<u>318,050</u>
Total Assets	\$ <u><u>55,163,022</u></u>	\$ <u><u>54,542,856</u></u>

**Sewer Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)**

	Liabilities & Net Assets	
	2010	2011
<u>Current Liabilities</u>		
Accounts Payable	\$ 298,904	\$ 120,257
Contracts Payable	57,838	175,931
Notes Payable	229,701	238,458
Leases Payable	156,775	162,773
Due to Other Funds	833,139	369,865
Due to Other Governments	624,247	713,708
Interest Payable	249,088	250,825
Accrued Salaries Payable	88,426	95,566
Vacations Payable	146,757	164,895
Deferred Revenue	88,248	52,395
Bonds Payable	997,058	1,306,141
Total Current Liabilities (Payable from Current Assets)	\$ 3,770,181	\$ 3,650,814
<u>Long Term Liabilities</u>		
Notes Payable	2,307,681	2,177,222
Vacations Payable	12,356	10,892
Leases Payable	2,548,017	2,385,244
Bonds Payable	13,250,516	12,039,374
Less Unamortized Bond Discount or Premium	43,962	(48,827)
Total Long Term Liabilities	18,162,532	16,563,905
Total Liabilities	21,932,713	20,214,719
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	30,173,023	33,232,547
Legal Restricted Assets	4,887	8,633
Unrestricted	3,052,399	1,086,957
Total Net Assets	33,230,309	34,328,137
Total Liabilities and Net Assets	\$ 55,163,022	\$ 54,542,856

City of Duluth
Sewer Utility Bonds, Notes and Capital Leases Payable
December 31, 2011

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal</u>
				<u>Outstanding</u>				<u>Outstanding</u>
Sewer Utility Bonds				12/31/2010				12/31/2011
Revenue and General Obligation	4,045,000	12/1/2004	2/1/2020	2,935,000	0	0	2,415,000	520,000
Revenue and General Obligation	1,011,831	12/19/2005	2/1/2021	801,692	0	0	59,011	742,681
Revenue and General Obligation	2,503,169	12/19/2005	2/1/2021	1,983,308	0	0	145,989	1,837,319
Revenue and General Obligation	765,450	12/19/2006	2/1/2022	648,000	0	0	44,550	603,450
Revenue and General Obligation	179,550	12/19/2006	2/1/2022	152,000	0	0	10,450	141,550
Revenue and General Obligation	2,120,000	12/13/2007	2/1/2023	1,910,000	0	0	115,000	1,795,000
Revenue and General Obligation Refunding	1,325,000	12/13/2007	2/1/2016	995,000	0	0	170,000	825,000
Revenue and General Obligation	1,244,000	2/19/2009	2/1/2024	1,179,388	0	0	68,058	1,111,330
Revenue and General Obligation Refunding	713,186	12/17/2009	2/1/2017	713,186	0	0	94,000	619,186
Revenue and General Obligation	905,000	12/17/2009	2/1/2025	905,000	0	0	45,000	860,000
Revenue and General Obligation Refunding	2,025,000	11/23/2010	2/1/2018	2,025,000	0	0	0	2,025,000
Revenue and General Obligation Refunding	2,265,000	11/29/2011	2/1/2020	0	2,265,000	0	0	2,265,000
Bond Total				\$ 14,247,574	\$ 2,265,000	\$ 0	\$ 3,167,058	\$ 13,345,516
Notes								
Public Facilities Authority	\$ 100,000	8/25/2003	8/20/2018	\$ 59,381	\$ 0	\$ 0	\$ 6,701	\$ 52,680
Public Facilities Authority	1,179,115	10/17/2003	8/20/2018	711,000	0	0	85,000	626,000
Public Facilities Authority (Note 1)	2,042,350	7/12/2007	8/20/2022	1,767,000	0	0	138,000	1,629,000
Public Facilities Authority (Note 3)	354,551	11/18/2011	8/20/2021	0	0	108,000	0	108,000
Note Total				\$ 2,537,381	\$ 0	\$ 108,000	\$ 229,701	\$ 2,415,680
Capital Leases								
AMR System	\$ 2,965,228	7/12/2007	2/1/2024	\$ 2,704,792	\$ 0	\$ 0	\$ 156,775	\$ 2,548,017
Capital Lease Total				\$ 2,704,792	\$ 0	\$ 0	\$ 156,775	\$ 2,548,017
Total Sewer Utility Bonds, Notes, and Capital Leases				\$ 19,489,747	\$ 2,265,000	\$ 108,000	\$ 3,553,534	\$ 18,309,213

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2012	\$ 1,707,372	\$ 611,392	\$ 2,318,764
2013	1,820,058	533,784	2,353,842
2014	1,894,296	438,550	2,332,846
2015	1,931,457	387,583	2,319,041
2016	1,821,256	336,217	2,157,474
2017	1,822,363	285,317	2,107,680
2018	1,770,208	233,065	2,003,273
2019	1,399,711	182,844	1,582,556
2020	1,454,118	134,908	1,589,026
2021	1,142,974	90,160	1,233,133
2022	813,705	55,903	869,608
2023	599,216	29,205	628,421
2024	304,028	8,948	312,976
2025	75,000	1,500	76,500
2026	0	0	0
	\$ 18,555,764	\$ 3,329,376	\$ 21,885,140

**Sewer Fund
Schedule of Fixed Assets
Year Ending December 31, 2011**

	<u>Balance Jan. 1, 2011</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2011</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 156,349	\$ 0	\$ 0	\$ 156,349	\$ 0	\$ 156,349
Infrastructure	45,954,097	1,652,282	0	47,606,379	7,433,442	40,172,937
Buildings and Structures	7,086,945	0	0	7,086,945	2,414,017	4,672,928
Equipment and Tools	6,065,478	111,537	197,309	5,979,706	2,848,413	3,131,293
Work in Progress	<u>1,650,724</u>	<u>3,164,348</u>	<u>1,662,998</u>	<u>3,152,074</u>	<u>0</u>	<u>3,152,074</u>
Total	<u>\$ 60,913,593</u>	<u>\$ 4,928,167</u>	<u>\$ 1,860,307</u>	<u>\$ 63,981,453</u>	<u>\$ 12,695,872</u>	<u>\$ 51,285,581</u>

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2011

	Station 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 Location	Aux. Power Gen. Set No.
1	215 S. 60th Ave. E.	Triplex Submersible 2006	305280 gal. 1	301397 gal.	1 - 1700 2 - 1700 3 - 1700	KSB	1 - 83 hp 2 - 83 hp 3 - 83 hp	480	105	10"	5005 London Rd. SA0880119	Permanent Onsite
2	20 Lakeside Ct.	Simplex Wet well, dry well 1932	2160 gal. 1	927.6 gal.	81	Worthington	3 hp	240	8.75	3"	55th Ave. E. Lakeside Ct & London Rd. SA0880117	2766 2770
3	35 S. 45th Ave. E.	Triplex Submersible 1999	397872 gal. 4	N/A	1 - 1200 2 - 1200 3 - 265	KSB	1 - 34 hp 2 - 34 hp 3 - 10 hp	480	1 - 47.5 2 - 47.5 3 - 15.1	16"	Lower side of London Rd. on 42nd Ave. E. SD1210001	2765 2767
4	720 S. 23rd Ave. E.	Duplex Submersible	3024 gal. 6	927.52 gal.	1 - 100 2 - 100	KSB	1 - 5 hp 2 - 5 hp	208	1 - 15.4 2 - 15.4	4"	23rd Ave. E. & Water St. SW0430011	2766 2770
5	715 S. 22nd Ave. E.	Simplex Submersible 1970	720 gal. 6	97.3 gal.	1 - 67.42	Flygt	1.9 hp	240	9	3"	22nd Ave. E. & Water St. SW0430012	2770 (1) 2766 (2)
6	200 Lake Place Dr. Storage facility	Wet well Dry well Pump 1 - 1970s Pumps 2&3 - 1980s (Pending completion)	1106064 gal. 16	9313.8 gal.	1 - 2400 2 - 1800 3 - 1800	Chicago	40 hp	240	1 - 98 2 - 98 3 - 98	24"	1st Ave. E. & 1st St. CH0460269	2765 (1) 1
7	528 Lake Ave. S.	Duplex Submersible 2006	78048 gal. 16	N/A	1 - 400 2 - 400	KSB (+ mixer)	6.5 hp 6.5 hp 5.4 hp	208	23 23 18.2	6"	Northeast side of station SA1090003	2765 2767
8	729 Lake Ave. S.	Wet well Dry well 1983 & 1987 new pumps & motors	228960 gal. 15	8863.8 gal.	1 - 808 2 - 808	Fairbank Morse	30 hp	480	37.7	8"	Northeast side of station #7 SA109003	2765 2767
9	1202 Minnesota Ave.	Wet well Dry well New motors 1985	165888 gal. 15	3941 gal.	1 - 702 2 - 702	Fairbank Morse	1- 10 hp	240	27.2	10"	11th St. & Lake Ave. SA1090015	2766 (1) 2770 (2) one pump only
10	1939 Minnesota Ave.	Duplex Submersible 1996	N/A 15	N/A	1 - 207.7 2 - 247.1	KSB	1 - 2.4 hp 2 - 2.4 hp	208	8.7	4'	20th St. & Minnesota Ave. SA0009	2770 (1) 2766 (2)

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2011

	Station 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 Location	Aux. Power Gen. Set No.
11	2845 Minnesota Ave.	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	39301	4"	29th St. & Minnesota Ave. SA1110002	2770 (1) 2766 (2)
12	3539 Minnesota Ave.	Duplex Submersible 1996	80640 gal. 15		1 - 170 2 - 170 (approx.)	KSB	1 - 1.75 hp 2 - 1.75 hp	208 3	1 - 6.9 2 - 6.9	4"	36th St. & Minnesota Ave. SA1110013	2770 (1) 2766 (2)
13	432 Railroad St.	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 - 19 19-Feb	12"	11th Ave. W. & Railroad St. SW0400031	2765 2767
14	735 Garfield Ave.	Wet well Dry well ~1940	50,976 gal. 18	2,476 gal.	1 - 163 2 - 276	Worthington	1 - 3 hp 2 - 7.5 hp	240 3	1 - 9.5 2 - 18.5	8"	Michigan St. SA0310022	2766 2770
15	2132 Michigan St.	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"	23rd Ave. W. below Michigan St. SW0310030	2765
16	210 S. 37th Ave. W.	Wet well Dry well 1993-95 new pumps & motors	572,544 gal. 23	4,630 gal.	912 avg. both pumps	Yeomans	1 - 15 hp	240 3	1 - 40	10"	37th Ave. W. above Oneota St. SW0300016	2765 2767
17	4100 Oneota St.	Duplex Submersible ~1975 2001	243,072 gal. 23	N/A	1 - 1000 2 - 1000	KSB	1 - 10 hp 2 - 10 hp	240 3	1 - 32.5 2 - 32.5	8"	Oneota SW0290038	2767 2765
18	700 S. 63rd Ave. W.	Duplex Submersible 1996	N/A 26	N/A	1 - 58.56 2 - 54.92	KSB	1 - 1.75 hp 2 - 1.75 hp	208 3	1 - 6.9 2 - 6.9	6"	63rd Ave. W. SA0180041	2770
19	107 Spring St. South	Duplex Submersible 1984	2880 gal. 28	409 gal.	1 - 73.7 2 - 79.2	Meyers	1 - 2 hp 2 - 2 hp	240	1 - 3.2 2 - 3.2	4"	Below RR tracks SW1230034	2770 2766
20	1325 Hilton St. New	Duplex Submersible 2004			1 - 169 2 - 160	KSB	1 - 5 hp 2 - 5 hp	208 30	1 - 17.7		Hilton SA0090036	

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2011

	Station 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 Location	Aux. Power Gen. Set No.
21	11 Commonwealth Ave.	Duplex Wet well Dry well 2007	3,600 gal. 30	480 gal.	1 - 125 2 - 96.0	Chicago	2 - 5 hp 3 - 5 hp	240 3	2 - 13.4 3/13/2004	4"	Commonwealth & Prescott St. SA0030035	2770 2765
22	629 Walnut St.	Duplex Submersible 2002	43,344 gal. 33		1 - 180 2 - 135.3 1-2:337.6	KSB	1 - 5 hp 2 - hp	240 3	1 - 29.2 2 - 10.1	4"	Walnut St. & Eklund Ave. SA0730023	2770 2766
23	346 E. Owatonna St.	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	2766 2770
24	No longer operational											
25	4634 Woodland Ave.	Duplex Submersible 2001	8352 gal. 11		1 - 2 -	KSB	1 - 15 hp 2 - 15 hp	240 3	1 - 52 2 - 52		Woodland Ave. near Vassar St. SA1000001	
26	1015 Jean Duluth Rd.	Duplex Submersible 1999	49,680 gal. 5		1 - 175 2 - 175	KSB	1 - 16.5 2 - 16.5	240 3	1 - 52 2 - 52	4"	Woodbury Lane SA0860115	2767 2765
27	835 E. Superior St.	Duplex Submersible 1984	4320 gal. 13	145.9 gal.	1 - 46.8 2 - 49.4	Myers	1 - 2 hp 2 - 2 hp	240 3	1 - 7.5 2 - 7.5	3"	Superior St. SA0420086	2766 2770
28	4937 Airport Rd.	Duplex Submersible 1998	17,136 gal. 22	N/A	1 - 150 2 - 150 rated from factory	KSB	1 - 3.4 hp 2 - 3.4 hp	240 3	1 - 10.2 2 - 10.2	4"	Washington St. SA1170006	2770 2766
29	15 N. 7th Ave. E.	Duplex Submersible 1984	5184 gal. 13	456.3 gal.	1 - 159 2 - 159 (approx.)	Flygt	1 - 3 hp 2 - 3 hp	240 3	1 - 9 2 - 9	4"	1st St. Alley east of station SA0470148	2770
30	2939 Morris Thomas	Duplex Submersible 1989	14,112 gal. 20	377.8 gal.	1 - 120.6 2 - 124.6	Flygt CP3102	1 - 5 hp 2 - 5 hp	240 3	1 - 13 2 - 13	6"	Morris Thomas W. of Keel	2766 2770

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2011

	Station 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 Location	Aux. Power Gen. Set No.
31	3822 Haines Rd.	Duplex Submersible 1989	13,104 gal. 21	658.3 gal.	1 - 200.5 2 - 154.3	Flygt CP3102	1 - 5 hp 2 - 5 hp	240 3	1 - 13 2 - 13	6"	Hutchinson Rd. near Piedmont	2766 2770
32	3862 Haines Rd.	Duplex Submersible 1989	5,472 gal. 21	613.4 gal.	1 - 138.9 2 - 155.3	Flygt CP3102	1 - 5 hp 2 - 5 hp	240 3	1 - 13 2 - 13	4"	Haines Rd. south of Piedmont SA0600093	2766 2770
33	11503 Hwy #23	Duplex Submersible 1995	NA	420 gal.	1 - 140 2 - 140 (estimated)	KSB	1 - 3 hp 2 - 3 hp	208	1 - 9.8 2 - 9.8	4"	Peary St. in woods before access rd. SA0030061	2766 2770
34	2706 Parkwood Lane	Duplex Submersible 1993	NA 20	433.9 gal.	1 - 166 2 - 166	Flygt CP3127	1 - 10 hp 2 - 10 hp	480 3	1 - 13 1 - 13	4"	Hanford Ave. N. of Station SA0560093	2767 2765
35	405 Coffee Creek Blvd	(Pending construction completion)										
36	412 Hastings Dr.	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"	Ewing & Marshall St. SA0900005	2767 2765
37	1031 London Rd.	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"	E. Superior St. SA0420080	2766 2770
38	4600 Minnesota Ave Park Point	Duplex Submersible	288 gal. 16	1241.8 gal.	1 - 175.7 2 - 46	Flygt CP3085 Meyers	1 - 2.3 hp 2 - 0.5 hp	240 1	1 - 10.2 2 - 4.3	6"	Park Point Rec Area MH SA1120015	2766 2770
39	7301 Grand Ave.	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"	Grand Ave.	2766 2770
40	1200 Port Terminal Dr.	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"	Near Sta #14 SA0320008	None

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT 2011

	Station 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 Location	Aux. Power Gen. Set No.
41	1037 Joshua Ave.	Duplex Submersible	8928 gal. 22		1 - 400 2 - 400	KSB	1 - 15 hp 2 - 15 hp	240 3	1 - 43.5 2 - 43.5	6"	Joshua Ave. & Maple Grove SA0680029	2767 2765
42	4551 Stebner Rd.	Duplex Submersible 1996	NA 22	NA	NA	KSB	1 - 5 hp 2 - 5 hp	480 3	1 - 7.8 2 - 7.8	4" 6"	Airport Approach & Airport Rd. SD1180032	2767 2765
43	11600 Perch Lake Dr.	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
44	12800 W. 5th St.	Duplex Submersible 2000			1 - 180 2 - 180 3 - 200	KSB	1 - 10 hp 2 - 10 hp	208 3	29 29	6"	Lift Station #43	2767 2765
45	52nd Ave. E. & Dodge St.	Triplex Submersible 2005		2 MG	1 - 1100 2 - 1100 3 - 1100	KSB	1 - 32 hp 2 - 32 hp 3 - 32 hp	480 3	39	12"	47th Ave. E. & Superior St. SW0830136	Permanent on site
46	Grinder Pump #1 (behind) 1467 88th Ave. W.	Duplex Submersible Grinder ~2005				Barnes	1 - 2 hp 2 - 2 hp	208 3	9.2 9.2	1.25"		
47	Grinder Pump #2 9239 Idaho St.	(in Bethany Crisis Shelter) ~2005				Barnes						
48	Grinder Pump #3 2501 Commonwealth Ave.	(9) 723-3870 ~2005				Barnes						
49	Beacon PT 21st Ave. E. & Water St.	Private 724-4053										
50	505 S. 18th Ave. E. & Lakewalk (Endion St.)	Storage Basin 2007		1 MG	No Pumps	Gravity In Gravity Out						
51	2027 Water St	Storage Basin Oct. 2010		3 MG								

LENGTH OF SANITARY SEWER PIPE IN FEET 2011

PIPE MATERIAL

Dia. Inches	Force Main	ABS	ACP	BRA	CBR	CI/DI	CIPP	CMP	HDPE	PVC	RCP	STL	VCP	Totals
2									1,601	1,016				2,617
3														0
4										320				320
6		48				51	54			1,455			11,115	12,723
8		7,026	13,580			14,036	36,275		694	455,667	294	460	1,002,062	1,530,094
9							3,911						23,674	27,585
10			15,006			3,933	4,078		154	35,613	3,147		81,582	143,513
12			2,127			1,306	3,800		515	19,825	51,349		54,112	133,034
14						164								164
15							2,326			17,408	52,514		32,606	104,854
16						933			980		42			1,955
18				1,279		231	4,057	2,595		1,043	32,970	133	23,200	65,508
20				121		12					466		3,864	4,463
21				441		116				1,094	8,115		1,303	11,069
22				2,574									1,481	4,055
24				1,015		750				698	16,771		4,413	23,647
26				609							1,266	145		2,020
27				457						50	3,819		1,583	5,909
28				1,385										1,385
30				497		166					22,476			23,139
32				1,402							886			2,288
34				503							66			569
36				1,417		5,993					23,413			30,823
42					466	8,422					2,375			11,263
45				7	459						581			1,047
48				192	157	2,709					1,662			4,720
54						4,312					392			4,704
55					60									60
Total -	0	7,074	30,713	11,899	1,142	43,134	54,501	2,595	3,944	534,189	222,604	738	1,240,995	2,153,528

Notes: The City of Duluth Sanitary Sewer system includes 8,495 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 - 407.9

Note: Pipe quantities are derived from Geographic Information System.

SANITARY SEWER ACTIVITIES 2011

ACTIVITY	WORK COMPLETED
Cleaning sanitary sewer pipe	522,316 ft
Televising sanitary sewer pipe	237,105 ft
I & I inspections (Inflow and Infiltration Grant Program)	
Homes inspected	1,790
Sump pumps installed	497
Public informational meetings	2
Contractor meetings	2
Laterals rehabilitated	287
Inspections for connections and disconnections	12
Dye testing	3
Field sampling	As needed
Flow monitoring	Ongoing with approximately 25 flow monitoring units

**C
L
E
A
N

W
A
T
E
R**

**Clean Water Utility
Statement of Net Income
For The Year Ended December 31, 2010 and 2011
(Unaudited)**

	2010	2011
<u>Operating Revenue</u>		
Charges for Services	\$ <u>2,938,537</u>	\$ <u>2,885,307</u>
Total Operating Revenue	\$ <u>2,938,537</u>	\$ <u>2,885,307</u>
<u>Operating Expense</u>		
Clean Water Expense	<u>939,270</u>	<u>1,040,500</u>
Total Operating Expense	<u>(939,270)</u>	<u>(1,040,500)</u>
Operating Income	<u>1,999,267</u>	<u>1,844,807</u>
<u>Other Revenue</u>		
Contributed Assets	8,317,507	4,457,016
Interest Income	<u>11,486</u>	<u>37,204</u>
Total Other Revenue	<u>8,328,993</u>	<u>4,494,220</u>
<u>Other Expenses and Transfers</u>		
Transfers to Other Funds		
Investing Activities	11,042	36,277
Interest on Long Term Debt	<u>40,139</u>	<u>114,213</u>
Total Other Expenses and Transfers	<u>(51,181)</u>	<u>(150,490)</u>
Net Income or Loss	\$ <u><u>10,277,079</u></u>	\$ <u><u>6,188,537</u></u>

**Clean Water Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)**

Assets

	2010	2011
<u>Current Assets</u>		
Cash	\$ 1,884,100	\$ 2,295,747
Accounts Receivable (Net)	325,708	310,910
Due from Other Governments	607,145	1,058,762
Total Current Assets	\$ 2,816,953	\$ 3,665,419
<u>Utility Plant</u>		
In Service	697,118	5,697,496
Construction	17,884,252	26,870,964
Less Accumulated Depreciation	(17,212)	(87,352)
Total Utility Plant Assets	18,564,158	32,481,108
<u>Other Assets</u>		
Issuance Costs	24,030	22,326
Total Other Assets	24,030	22,326
Total Assets	\$ 21,405,141	\$ 36,168,853

**Clean Water Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)**

	Liabilities & Net Assets	
	2010	2011
<u>Current Liabilities</u>		
Accounts Payable	\$ 58,458	\$ 60,237
Contracts Payable	1,403,837	2,239,694
Notes Payable	970,444	1,007,620
Due to Other Governments	9,000	9,706
Interest Payable	21,028	55,688
Deferred Revenue	12,621	12,403
Bonds Payable	10,942	11,634
Total Current Liabilities (Payable from Current Assets)	\$ 2,486,330	\$ 3,396,982
<u>Long Term Liabilities</u>		
Bonds Payable	2,832,818	10,508,976
Notes Payable	178,670	167,036
Total Long Term Liabilities	3,011,488	10,676,012
Total Liabilities	5,497,818	14,072,994
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	14,595,314	20,808,168
Unrestricted	1,312,009	1,287,691
Total Net Assets	15,907,323	22,095,859
Total Liabilities and Net Assets	\$ 21,405,141	\$ 36,168,853

**City of Duluth
Clean Water Utility Bonds and Notes Payable
December 31, 2011**

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2010</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2011</u>
Clean Water Utility								
Bonds								
Revenue and General Obligation	\$ 200,000	2/19/2009	2/1/2024	\$ 189,612	\$ 0	\$ 0	\$ 10,942	\$ 178,670
Bond Total				\$ 189,612	\$ 0	\$ 0	\$ 10,942	\$ 178,670
Notes								
Public Facilities Authority	\$ 2,414,150	12/10/2009	8/20/2024	\$ 2,388,000	\$ 0	\$ 0	\$ 149,000	\$ 2,239,000
Public Facilities Authority	796,835	6/17/2009	8/20/2024	564,073	0	58,653	48,000	574,726
Public Facilities Authority	9,087,385	8/31/2010	8/20/2025	577,057	0	7,080,775	547,385	7,110,447
Public Facilities Authority	3,753,059	8/31/2010	8/20/2025	274,131	0	1,462,609	226,059	1,510,681
Public Facilities Authority	278,149	11/18/2011	8/20/2021	0	0	0	0	0
Public Facilities Authority	282,620	11/30/2011	8/20/2021	0	0	81,741	0	81,741
Note Total				\$ 3,803,261	\$ 0	\$ 8,683,778	\$ 970,444	\$ 11,516,595
Total Clean Water Utility Bonds and Notes				\$ 3,992,873	\$ 0	\$ 8,683,778	\$ 970,444	\$ 11,695,265

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2012	\$ 1,030,403	\$ 183,940	\$ 1,214,343
2013	1,077,496	207,952	1,285,448
2014	1,094,188	192,830	1,287,018
2015	1,108,188	177,433	1,285,621
2016	1,123,881	161,820	1,285,701
2017	1,140,435	145,972	1,286,407
2018	1,155,435	129,870	1,285,305
2019	1,171,989	113,499	1,285,488
2020	1,189,681	96,860	1,286,542
2021	1,206,235	79,951	1,286,187
2022	1,160,235	62,782	1,223,018
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
2026	0	0	0
	\$ 15,763,439	\$ 1,639,408	\$ 17,402,848

**Clean Water Fund
Schedule of Fixed Assets
Year Ending December 31, 2011**

	<u>Balance Jan. 1, 2011</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2011</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 525,000	\$ 0	\$ 0	\$ 525,000	\$ 0	\$ 525,000
Infrastructure	0	5,000,378	0	5,000,378	35,717	4,964,661
Buildings and Structures	0	0	0	0	0	0
Equipment and Tools	172,118	0	0	172,118	51,635	120,483
Work in Progress	<u>17,884,252</u>	<u>13,987,090</u>	<u>5,000,378</u>	<u>26,870,964</u>	<u>0</u>	<u>26,870,964</u>
Total	<u><u>\$ 18,581,370</u></u>	<u><u>\$ 18,987,468</u></u>	<u><u>\$ 5,000,378</u></u>	<u><u>\$ 32,568,460</u></u>	<u><u>\$ 87,352</u></u>	<u><u>\$ 32,481,108</u></u>

STORMWATER

**Stormwater Utility
Statement of Net Income
For The Year Ended December 31, 2010 and 2011
(Unaudited)**

	2010	2011
<u>Operating Revenue</u>		
Stormwater Charges	\$ 4,685,309	\$ 4,598,436
Other	15,710	34,105
Total Operating Revenue	\$ 4,701,019	\$ 4,632,541
<u>Operating Expense</u>		
Director's Office	53,067	53,638
Capital Related Expenses	504,957	545,682
Utility General Expense	484,576	553,002
Engineering	382,665	442,494
Utility Operations	1,671,417	1,530,798
Customer Service	172,838	194,982
Total Operating Expense	(3,269,520)	(3,320,596)
Operating Income	1,431,499	1,311,945
<u>Other Revenue</u>		
Grants Non-Capital	29,589	0
Capital Contributions	0	106,000
Gain or Loss on Sale of Fixed Assets	320	(1,621)
Interest Income	33,506	39,944
Total Other Revenue	63,415	144,323
<u>Other Expenses and Transfers</u>		
Bond Interest	81,594	70,784
Transfers to Other Funds		
Investing Activities	31,936	38,425
Other Transfers	510,600	515,710
Total Other Expenses and Transfers	(624,130)	(624,919)
Net Income or Loss	\$ 870,784	\$ 831,349

Stormwater Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)

	Assets	
	2010	2011
<u>Current Assets</u>		
Cash	\$ 2,420,389	\$ 1,649,337
Accounts Receivable	570,466	481,145
Special Assessments	7,722	30,417
Due from Other Funds	36,849	164,224
Due from Component Units	0	2,613
Due from Other Governments	0	26,022
Inventory	52,436	137,841
Prepays	<u>73,648</u>	<u>65,971</u>
Total Current Assets	\$ <u>3,161,510</u>	\$ <u>2,557,570</u>
<u>Utility Plant</u>		
In Service	13,514,649	13,862,222
Construction	<u>1,390,440</u>	<u>2,313,626</u>
Less Accumulated Depreciation	<u>(2,425,748)</u>	<u>(2,792,709)</u>
Total Utility Plant Assets	<u>12,479,341</u>	<u>13,383,139</u>
<u>Other Assets</u>		
Bond Issuance Charges	<u>30,639</u>	<u>27,459</u>
Total Other Assets	<u>30,639</u>	<u>27,459</u>
Total Assets	\$ <u><u>15,671,490</u></u>	\$ <u><u>15,968,168</u></u>

Stormwater Utility
Statement of Net Assets
For The Year Ending December 31, 2010 and 2011
(Unaudited)

	Liabilities & Net Assets	
	2010	2011
<u>Current Liabilities</u>		
Accounts Payable	\$ 256,801	\$ 49,150
Contracts Payable	78,558	93,344
Due to Other Funds	354,257	150,052
Due to Other Governments	11,378	6,480
Accrued Interest Payable	25,689	29,432
Accrued Salaries Payable	61,229	54,176
Vacations Payable	84,931	96,192
Deferred Revenue	50,626	16,130
Bonds Payable	95,000	196,839
Total Current Liabilities (Payable from Current Assets)	\$ 1,018,469	\$ 691,795
<u>Long Term Liabilities</u>		
Vacations Payable	26,910	16,497
Bonds Payable	2,105,000	1,908,161
Less Unamortized Bond Discount or Premium	7,088	6,343
Total Long Term Liabilities	2,138,998	1,931,001
Total Liabilities	3,157,467	2,622,796
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	10,302,892	11,299,255
Unrestricted	2,211,131	2,046,117
Total Net Assets	12,514,023	13,345,372
Total Liabilities and Net Assets	\$ 15,671,490	\$ 15,968,168

**City of Duluth
Stormwater Utility Bonds Payable
December 31, 2011**

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2010</u>	<u>Issued</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2011</u>
Stormwater Utility							
Bonds							
Revenue and General Obligation	1,705,000	9/7/2006	2/1/2022	1,445,000	0	95,000	1,350,000
Revenue and General Obligation Refunding	755,000	11/23/2010	2/1/2018	755,000	0	0	755,000
Bond Total				\$ 2,200,000	\$ 0	\$ 95,000	\$ 2,105,000
Total Stormwater Utility Bonds				<u>\$ 2,200,000</u>	<u>\$ 0</u>	<u>\$ 95,000</u>	<u>\$ 2,105,000</u>

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2012	\$ 196,839	\$ 68,295	\$ 265,134
2013	204,552	62,297	266,849
2014	210,409	56,115	266,524
2015	218,837	49,690	268,527
2016	224,694	43,022	267,716
2017	233,121	35,551	268,672
2018	241,549	27,234	268,783
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
2023	0	0	0
	<u>\$ 2,105,000</u>	<u>\$ 389,503</u>	<u>\$ 2,494,503</u>

**Stormwater Fund
Schedule of Fixed Assets
Year Ending December 31, 2011**

	<u>Balance Jan. 1, 2011</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2011</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 8,481	\$ 0	\$ 0	\$ 8,481	\$ 0	\$ 8,481
Infrastructure	9,488,978	412,211	0	9,901,189	805,202	9,095,987
Buildings and Structures	1,401,897	0	0	1,401,897	210,285	1,191,612
Equipment and Tools	2,615,293	22,171	86,809	2,550,655	1,777,222	773,433
Work in Progress	<u>1,390,440</u>	<u>1,349,135</u>	<u>425,949</u>	<u>2,313,626</u>	<u>0</u>	<u>2,313,626</u>
Total	<u>\$ 14,905,089</u>	<u>\$ 1,783,517</u>	<u>\$ 512,758</u>	<u>\$ 16,175,848</u>	<u>\$ 2,792,709</u>	<u>\$ 13,383,139</u>

LENGTH OF STORM SEWERS IN FEET 2011

Dia. Inch.	BR	CMP	CPD	CI/DI	HDPE	NCP	PPC	PVC	RCP	STN	STL	TP	VCP	UNK	Totals
3									25			840			865
4			33,000					543,361	1,039		13	135		122,574	700,122
6		3,224	204	155	423			10,294	62			279		10,730	25,371
7															0
8			61	116	33	41		11,973	63			128	445	3,805	16,665
10		2,103		236	40			2,230	10,038				1,753	24,388	40,788
12		12,454	4,302	1,874	23,582	769		14,532	422,709		68		1,210	81,847	563,347
13									30						30
14		60		38					249					358	705
15		3,268		475	3,480	170	55	1,401	187,673				421	49,640	246,583
16				682					249					785	1,716
17														81	81
18		6,037	694		1,197	61		938	114,993		54		640	37,887	162,501
20				87					1,306		272			4,492	6,157
21		963		61				7	38,750				572	8,325	48,678
22									1,101					1,481	2,582
23														1,079	1,079
24	321	3,764	1,107	110	460			79	70,363	83	70		656	121,839	198,852
26	1,751							39	4,041					13,579	19,410
27					18				16,316					1,820	18,154
28	673	28							3,644					2,730	7,075
29									815					431	1,246
30		1,038			1,969				40,052					12,234	55,293
31									385						385
32	375								1,956	52				2,362	4,745
33									711						711
34														371	371
36	247	1,185				460			33,745	162				15,866	51,665
40									1,285	629				203	2,117
42		51		250				80	15,187					2,581	18,149
44		190							3,516					946	4,652
45									617					380	997
46														79	79
48	347	296					296		16,520	475				11,085	29,019
50	240								292					37	569

LENGTH OF STORM SEWERS IN FEET 2011

Dia. Inch.	BR	CMP	CPD	CI/DI	HDPE	NCP	PPC	PVC	RCP	STN	STL	TP	VCP	UNK	Totals
51									1,086						1,086
52									401						401
54									13,534					4,957	18,491
56									89					61	150
58									600					799	1,399
60		321				28	1,064	0	2,787	362				5,177	9,739
62									638					60	698
65									76					377	453
66	30								280	80				263	653
72		156					373		2,597	279				3,880	7,285
73														77	77
78		82					228		389						699
84	472	122							579	1,170				1,465	3,808
88							50		241					0	291
96							81	395	420	65				434	1,395
108									116					217	333
120									977					1,468	2,445
122									54						54
128									52	1,143				549	1,744
132									170					714	884
144									119					0	119
156									143						143
192									30						30
UNK	816	303			108			2,278	3,416	1,049				104,499	112,469
	5,272	35,645	39,368	4,084	31,310	1,529	2,147	587,607	1,016,526	5,549	477	1,382	5,697	659,012	2,395,605

Note: The Storm Sewer system also includes 12,083 catch basins and 5,735 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				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	Buckingham is a Protected Water Trout Stream
Miller Creek	Impaired	Temperature Lack of coldwater assemblage Aquatic Macroinvertebrates E. coli Chloride	Study started for temp. and Lack of coldwater assemblage	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>

**These streams are part of the "north shore streams group" turbidity study being managed by Karen Evens at MPCA.

STORMWATER UTILITY ACTIVITIES 2011

ACTIVITY	WORK COMPLETED
Cleaning creeks	0
Televising storm sewer pipe	14 jobs
Line flushing	27 jobs
Manhole/catch basin repairs	3
Ditch line (dug or repaired and seeded or sodded)	17 jobs
Culverts repaired	27
Steaming:	
Steamed culverts and ditches blocked with ice	0
Sediment trap cleaning	4
Presentations:	
Public	5
Staff	4
City council and city commissions and committees	1
School presentations, school group, childrens' groups	21
Radio, television and newspaper articles	4
Regional conferences	4
National conferences	1