

CITY OF DULUTH



**Public Works & Utilities Department
2021 Annual Report**

CONTENTS

Officers and Staff	1
Organizational Chart	2
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	10-12
Water Distribution Properties	13-16
Water Activities	17
Gas Utility:	
Statement of Net Income	18
Statement of Net Assets	19-20
Capital Leases Payable	21
Schedule of Fixed Assets	22
Gas Statistics	23
Gas Mains in Service	24
Gas Activities	25
Sewer Utility:	
Statement of Net Income	26
Statement of Net Assets	27-28
Bonds, Notes and Capital Leases Payable	29
Schedule of Fixed Assets	30
Sewer Pumping Stations - Sewage Pumping Equipment	31-35
Sewer Lines	36
Sewer Activities	37
Clean Water Utility:	
Statement of Net Income	38
Statement of Net Assets	39-40
Bonds and Notes Payable	41
Schedule of Fixed Assets	42
Stormwater Utility:	
Statement of Net Income	43
Statement of Net Assets	44-45
Bonds Payable	46
Schedule of Fixed Assets	47
Stormwater Pumping Stations	48
Stormwater Pipes	49-50
Creeks and Streams	51-54
Stormwater Activities	55

Front cover photos:
2021 utility projects, photos taken by City
Engineering Division staff

OFFICERS OF THE DEPARTMENT

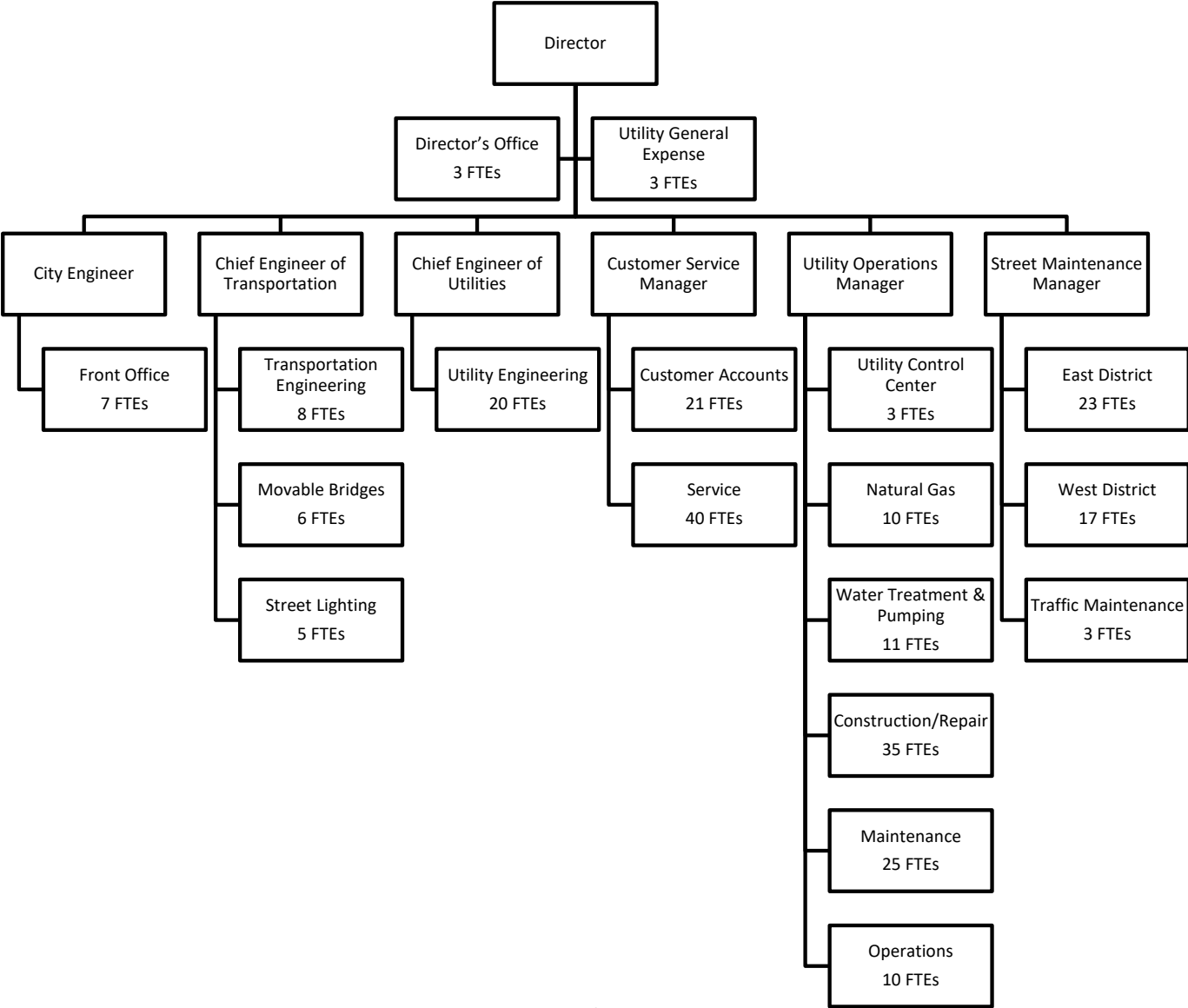
Mayor	.....	Emily Larson
Chief Administrative Officer	.....	Noah Schuchman
City Council Public Works & Utilities Committee		
Councilor Joel Sipress		
Duluth Public Utilities Commission		
Carrie Ryan, President	Councilor Derek Medved	
Chris Adatte, Vice President	Councilor Joel Sipress	
Andrea Crouse	Councilor Terese Tomanek	
Steve Lipinski		

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	.....	John Upton
Manager, Street Maintenance	.....	Chad Bednar
Manager, Utility Operations	.....	Greg Guerrero
Executive Assistant	.....	Leanna Gilbert
Public Works & Utilities Analyst	.....	Chris Ostern
Public Works & Utilities Analyst	.....	Kerry Venier
Financial Analyst	.....	Angie Hassett

City of Duluth Public Works & Utilities Department 2021

Total Budgeted FTEs: 257



**W
A
T
E
R**

**Water Utility
Statement of Net Income
For The Year Ended December 31, 2020 and 2021
(Unaudited)**

	2020		2021
<u>Operating Revenue</u>			
Metered Water Sales	\$ 14,957,024		\$ 15,790,658
Other	142,871		129,750
Total Operating Revenue	\$ 15,099,895		\$ 15,920,408
<u>Operating Expense</u>			
Director's Office	106,575		113,729
Capital Related Expenses	1,863,248		1,864,665
Utility General Expense	(157,190)		(907,354)
Engineering	620,467		592,908
Utility Operations	2,998,619		3,135,013
Water Treatment and Pumping	2,774,943		2,919,581
Customer Service	1,750,396		1,523,541
Total Operating Expense	(9,957,058)		(9,242,083)
Operating Income	5,142,837		6,678,325
<u>Other Revenue</u>			
Contributed Capital	40,745		154,087
Gain or Loss on the Sale of Fixed Assets	9,749		3,026
Transfer from Other Funds			
Administrative Billing Fee	135,000		100,000
Interest Income	41,998		(28,198)
Total Other Revenue	227,492		228,915
<u>Other Expenses and Transfers</u>			
Transfer to Other Funds			
Non-Capital Improvements	112,149		95,158
Reimbursement for MIS Programmer	59,975		59,075
Interest on Long Term Debt	219,220		192,141
Total Other Expenses and Transfers	(391,344)		(346,374)
Net Income or Loss	\$ 4,978,985		\$ 6,560,866

**Water Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)**

	Assets & Deferred Outflows	
	2020	2021
<u>Current Assets</u>		
Cash	\$ 4,560,636	\$ 7,325,298
Restricted Cash and Equivalents:		
Construction	354,660	169,660
Accounts Receivable (Net)	1,363,761	1,441,042
Special Assessments	19,938	13,327
Due from Other Funds	1,019	120,860
Due from Other Governments	0	156
Inventory	1,282,462	1,269,908
Prepays	<u>3,010,420</u>	<u>5,005,523</u>
Total Current Assets	\$ <u>10,592,896</u>	\$ <u>15,345,774</u>
<u>Utility Plant</u>		
In Service	104,245,919	106,172,995
Construction	<u>7,803,247</u>	<u>8,035,545</u>
Less Accumulated Depreciation	<u>(44,715,700)</u>	<u>(46,298,582)</u>
Total Utility Plant Assets	<u>67,333,466</u>	<u>67,909,958</u>
<u>Other Assets</u>		
Special Assessments Receivable	<u>72,498</u>	<u>64,749</u>
Total Other Assets	<u>72,498</u>	<u>64,749</u>
Total Assets	<u>77,998,860</u>	<u>83,320,481</u>
<u>Deferred Outflows</u>		
Deferred Pension Obligation Outflows	335,175	1,528,552
Deferred OPEB Outflows	<u>0</u>	<u>652,426</u>
Total Deferred Outflows	<u>335,175</u>	<u>2,180,978</u>
Total Assets and Deferred Outflows	\$ <u><u>78,334,035</u></u>	\$ <u><u>85,501,459</u></u>

Water Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)

	Liabilities & Net Assets	
	2020	2021
<u>Current Liabilities</u>		
Accounts Payable	\$ 192,119	\$ 251,647
Contracts Payable	63,833	226,821
Notes Payable	707,000	715,000
Leases Payable	265,017	275,156
Due to Other Funds	15,913	23,333
Due to Other Governments	2,693	37,228
Accrued Interest Payable	86,871	75,837
Accrued Salaries Payable	142,395	164,559
Vacations Payable	267,649	267,621
Unearned Revenue	76,875	72,307
Customer Deposits	10,000	0
Bonds Payable	330,000	340,000
Total Current Liabilities (Payable from Current Assets)	\$ 2,160,365	\$ 2,449,509
<u>Long Term Liabilities</u>		
Notes Payable	4,289,000	3,574,000
Leases Payable	707,755	432,599
Pension Liability	3,291,304	2,138,733
Bonds Payable	3,777,000	3,437,000
Less Unamortized Bond Discount or Premium	38,101	31,154
Total Long Term Liabilities	12,103,160	9,613,486
Total Liabilities	14,263,525	12,062,995
<u>Deferred Inflows</u>		
Deferred Pension Obligation Inflows	195,083	2,064,855
Deferred OPEB Inflows	1,634,951	2,572,267
Total Deferred Inflows	1,830,034	4,637,122
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	57,574,253	59,274,709
Unrestricted	4,666,223	9,526,633
Total Net Assets	62,240,476	68,801,342
Total Liabilities, Deferred Inflows, and Net Assets	\$ 78,334,035	\$ 85,501,459

City of Duluth
Water Utility Bonds, Notes and Capital Leases Payable
December 31, 2021

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2020</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2021</u>
Water Utility								
Bonds								
Revenue and General Obligation	\$ 196,000	2/19/2009	2/1/2024	\$ 62,000	\$ 0	\$ 0	\$ 15,000	\$ 47,000
Revenue and General Obligation Refunding	515,000	11/5/2015	2/1/2022	180,000	0	0	90,000	90,000
Revenue and General Obligation	4,050,000	10/17/2018	2/1/2034	3,865,000	0	0	225,000	3,640,000
Bond Total				<u>\$ 4,107,000</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 330,000</u>	<u>\$ 3,777,000</u>
Notes								
Public Facilities Authority	\$ 1,293,200	9/14/2010	8/20/2025	\$ 451,000	\$ 0	\$ 0	\$ 88,000	\$ 363,000
Public Facilities Authority	3,344,131	12/14/2010	8/20/2025	1,208,000	0	0	236,000	972,000
Public Facilities Authority	1,221,631	11/29/2011	8/20/2026	497,000	0	0	80,000	417,000
Public Facilities Authority	4,778,806	3/24/2014	8/20/2029	2,840,000	0	0	303,000	2,537,000
Note Total				<u>\$ 4,996,000</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 707,000</u>	<u>\$ 4,289,000</u>
Capital Leases								
AMR System	\$ 3,375,986	3/28/2008	2/1/2024	\$ 972,772	\$ 0	\$ 0	\$ 265,017	\$ 707,755
Capital Lease Total				<u>\$ 972,772</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 265,017</u>	<u>\$ 707,755</u>
Total Water Utility Bonds, Notes and Capital Leases				<u>\$ 10,075,772</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 1,302,017</u>	<u>\$ 8,773,755</u>

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2022	\$ 1,330,156	\$ 181,552	\$ 1,511,708
2023	1,264,684	154,208	1,418,892
2024	1,138,915	127,536	1,266,451
2025	995,000	109,018	1,104,018
2026	665,000	93,280	758,280
2027	592,000	81,087	673,087
2028	600,000	69,693	669,693
2029	613,000	58,042	671,042
2030	295,000	46,063	341,063
2031	305,000	36,872	341,872
2032	315,000	26,987	341,987
2033	325,000	16,588	341,588
2034	335,000	5,653	340,653
	<u>\$ 8,773,755</u>	<u>\$ 1,006,579</u>	<u>\$ 9,780,334</u>

Water Fund
Schedule of Fixed Assets
Year Ending December 31, 2021

	<u>Balance Jan.</u> <u>1, 2021</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec.</u> <u>31, 2021</u>	<u>Accumulated</u> <u>Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 208,963	\$ 0	\$ 0	\$ 208,963	\$ 0	\$ 208,963
Infrastructure	73,190,312	1,987,665	0	75,177,977	23,101,648	52,076,329
Buildings and Structures	22,338,952	0	0	22,338,952	15,968,801	6,370,151
Equipment and Tools	8,507,692	156,780	217,369	8,447,103	7,228,133	1,218,970
Work in Progress	<u>7,803,247</u>	<u>2,308,742</u>	<u>2,076,444</u>	<u>8,035,545</u>	<u>0</u>	<u>8,035,545</u>
Total	<u>\$ 112,049,166</u>	<u>\$ 4,453,187</u>	<u>\$ 2,293,813</u>	<u>\$ 114,208,540</u>	<u>\$ 46,298,582</u>	<u>\$ 67,909,958</u>

COMPARATIVE STATEMENT, OPERATING EXPENSE OF ALL STATIONS

Station	Year	Daily Average Gallons Pumped, Initial Supply	Gallons Pumped	K.W.H. Consumed	Electricity
Lakewood	2020	11,001,643	4,015,600,000	6,646,500	\$ 574,823
	2021	10,195,117	3,721,218,000	5,992,350	\$ 593,493
Middle	2020	2,516,235	918,426,000	1,201,600	\$ 103,756
	2021	2,577,813	940,902,000	1,261,901	\$ 143,542
Woodland	2020	1,684,413	614,811,000	1,453,800	\$ 126,932
	2021	1,697,304	619,516,000	1,574,623	\$ 194,060
West Duluth	2020	2,803,271	1,023,194,000	304,704	\$ 34,741
	2021	1,142,169	416,892,000	141,486	\$ 28,864
Orphanage	2020	260,465	95,070,000	65,920	\$ 8,120
	2021	235,873	86,094,000	68,131	\$ 9,304
Highland	2020	1,310,534	478,345,000	420,096	\$ 44,343
	2021	1,208,254	441,013,000	423,326	\$ 62,406
Arlington	2020	1,320,964	482,152,000	816,000	\$ 97,689
	2021	1,300,309	474,613,000	855,031	\$ 109,612
Lakeside	2020	180,156	65,757,000	83,520	\$ 12,786
	2021	133,854	48,857,000	64,689	\$ 13,186
Bay View	2020	486,243	177,479,000	201,600	\$ 25,543
	2021	494,517	180,499,000	226,345	\$ 29,772
Proctor	2020	372,378	135,918,000	191,680	\$ 24,757
	2021	370,827	135,352,000	210,441	\$ 33,851
Airport	2020	-	unmetered	15,552	\$ 1,832
	2021	-	unmetered	10,685	\$ 2,099
TOTALS	2020	21,936,302	8,006,752,000	11,400,972	\$ 1,055,322
	2021	19,356,037	7,064,956,000	10,829,008	\$ 1,220,189

WATER PLANT STATISTICS

	2021	2020	2019	2018	2017	2016	2015
Water Pumped							
Million Cubic Feet	497.48	536.84	600.37	623.28	655.20	666.81	692.43
Water Sold							
Million Cubic Feet	386.65	464.23	527.56	561.94	568.41	565.57	589.84
General & Distribution Operating							
Costs including Maintenance (*)	\$ 7,444,915	\$ 8,183,754	\$ 8,928,974	\$ 9,255,377	\$ 9,285,999	\$ 9,008,318	\$ 8,528,252
Cost per 100 Cubic Feet	\$ 1.9255	\$ 1.7629	\$ 1.6925	\$ 1.6470	\$ 1.6337	\$ 1.5928	\$ 1.4459
Interest charges	\$ 192,141	\$ 219,220	\$ 245,638	\$ 252,071	\$ 182,025	\$ 213,800	\$ 269,225
Cost per 100 Cubic Feet	\$ 0.0497	\$ 0.0472	\$ 0.0466	\$ 0.0449	\$ 0.0320	\$ 0.0378	\$ 0.0456
Depreciation charge	\$ 1,797,168	\$ 1,773,304	\$ 1,752,474	\$ 1,818,410	\$ 1,826,882	\$ 1,776,832	\$ 1,709,522
Cost per 100 Cubic Feet	\$ 0.4648	\$ 0.3820	\$ 0.3322	\$ 0.3236	\$ 0.3214	\$ 0.3142	\$ 0.2898
Total Cost per 100 Cubic Feet	\$ 2.4400	\$ 2.1921	\$ 2.0712	\$ 2.0155	\$ 1.9871	\$ 1.9448	\$ 1.7813
Operating revenue	\$ 15,920,408	\$ 15,099,895	\$ 15,142,720	\$ 14,925,155	\$ 14,445,384	\$ 14,488,756	\$ 14,435,412
Revenue per 100 Cubic Feet Sold	\$ 4.1175	\$ 3.2527	\$ 2.8703	\$ 2.6560	\$ 2.5414	\$ 2.5618	\$ 2.4473
Water meters in service	28,693	28,518	28,324	28,957	28,329	28,253	28,208
Water main miles	432.30	430.30	429.50	429.30	428.40	428.30	433.40
Water meters per mile of main	66.37	66.27	65.95	67.45	66.13	65.97	65.09
Hydrants on system	2,778	2,747	2,738	2,716	2,708	2,699	2,688

(*) Depreciation not included

WATER PURIFICATION 2021 LAKEWOOD STATION

Month	Total Number of Gallons Treated (Millions)	Average Water Temperature at Treatment Bldg, Degrees F	Ammonia Lbs. Used	Chlorine Lbs. Used	Alum Gal. Used	Fluoride Gal. Used	Turbidity of Effluent NTU
January	273.9	35.7	1,210	5,940	3,961	893	0.021
February	250.2	35.1	1,145	5,065	3,961	866	0.023
March	278.2	34.9	1,276	5,090	7,923	988	0.026
April	261.2	37.7	934	5,055	7,923	953	0.034
May	282.5	40.1	756	6,319	3,961	980	0.045
June	309.1	45.2	948	7,189	7,923	1,057	0.015
July	402.9	57.3	1,501	10,219	7,923	1,331	0.022
August	370.2	49.7	1,398	8,569	7,923	1,238	0.031
September	326.4	54.8	1,228	9,154	7,923	1,113	0.044
October	294.0	54.4	1,156	9,042	3,961	1,012	0.026
November	263.3	48.0	1,003	7,171	7,923	922	0.030
December	275.4	38.7	1,042	6,876	3,961	976	0.030
TOTAL	3,587.3		13,597	85,689	75,266	12,329	
Average/Month	298.9	44.3	1,133	7,141	6,272	1,027	0.029

**2021
LAKE SUPERIOR RAW WATER
AND DULUTH FINISHED WATER (LABORATORY ANALYSES)**

Milligrams per Liter (except pH, Specific Conductance, and Turbidity)

	RAW	FINISHED
	Average	Average
Dissolved Oxygen, ppm	12.0	12.0
pH	7.8	9.2
Monthly Specific Conductance, Micromhos/cm	102.8	131.9
Alkalinity, ppm CaCO ₃	42	48
Sulfates, ppm	3.1	7.9
Fluoride, ppm	0.08	0.75
Turbidity, NTU	0.83	0.029
Total Dissolved Solids, ppm	N/A	62.8
Hardness, ppm CaCO ₃	N/A	45
Chlorine, Total, ppm Cl ₂	N/A	1.7
Monochloramine, ppm Cl ₂	N/A	1.8
Ammonia, Free, ppm NH ₃ -N	N/A	0.1
Ammonia, Total, ppm NH ₃ -N	N/A	0.4

BACTERIOLOGICAL DATA 2021

	RAW WATER INTAKE	DISTRIBUTION	
Average for	Number Samples	Number Samples	Number Samples Positive
January	14	92	0
February	15	91	0
March	18	91	0
April	16	92	0
May	16	92	0
June	18	93	0
July	15	96	0
August	18	93	0
September	16	94	0
October	14	91	0
November	14	91	0
December	14	92	0
TOTAL	188	1,108	0
Average for Month	15.7	92.3	0

LENGTH OF WATER MAINS IN FEET

Diameter Inches	Cast Iron	Ductile Iron	Steel	Copper	Polyvinyl Chloride	High Density Polyethylene	Total	Valves	Vaults
1				885			885	4	
2				2,587		11,366	13,953	34	
3	1,350						1,350	10	
4	10,178	2,836				241	13,255	56	
6	955,527	146,474	569		1,729	13,208	1,117,507	2,449	
8	74,457	102,562	458		294	181,793	359,564	887	5
10	152,628	51,843	5,970			35,385	245,826	437	7
12	152,789	45,471	1,904			31,978	232,142	423	11
14						2,400	2,400		
16	73,413	24,425	11,018			1,991	110,847	140	1
18	1,390	435				2,092	3,917	5	
20	14,220	1,793	29,254			12,493	57,760	107	4
24	8,440	6,583	55			7,693	22,771	34	1
30			2,673				2,673	2	
36	25,069	11,722	11,384				48,175	33	3
42	181		49,224				49,405	6	
48							0		
TOTALS	1,469,642	394,144	112,509	3,472	2,023	300,640	2,282,430	4,627	32
Total Miles -							432.3		
Change from 2020 -							2.0	55	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

	Total Hydrants	Valves on Branches	Lineal Feet Main to Hydt.
TOTAL IN SERVICE 12/31/2020	2,747	2,711	57,197
TOTAL IN SERVICE 12/31/2021	2,778	2,746	43,368
Changes from 2020*:	31	35	-13,829

*Decrease in lineal feet due to change of query to reflect only City-owned portion of main.

DATA, RESERVOIRS AND TANKS

Location	Capacity (Gallons)	Overflow Elevation (Feet)	Greatest Depth (Feet)	Dimension (Feet)	Remarks
Lakeside Tank	100,000	500.00	23.75	Diameter 27	Built in 1961
34th Avenue East "Reservoir A"	16,320,000	294.00	30.00	284 x 391	Built 1898, Rebuilt 1938
Endion Reservoir	14,140,000	290.00	28.00	240 x 320	Built by G & W Company Rebuilt 1922 New Roof 1966 Lined 1988
West End Reservoirs #1-6	10,200,000	290.00	33.00	Diameter 100	Built 1953
West Duluth Reservoir	10,000,000	290.00	21.00	327.3 x 263.3	Built 1906 Remodeled 1925 New Roof 2014
Middle System - Reservoir #1	5,171,000	560.00	28.00	Diameter 187.38	Built 1913 New Roof 1928 Lined 1988
Middle System - Reservoir #2	5,131,000	560.00	25.00	Diameter 190	Built in 1951
Woodland Reservoir #1	1,021,000	806.00	22.00	Diameter 91.5	Built in 1915 Lined 1939 Refaced 2002
Woodland Reservoir #2	2,015,000	806.00	35.50	Diameter 100	Built in 1950 Lined 2000 Refaced 2002
Arlington Reservoir #1	240,490	806.00	27.00	Diameter 40	Built in 1925
Arlington Reservoir #2	1,534,000	806.00	27.50	Diameter 100	Built in 1950
Orphanage Tank #1	400,000	916.00	129.40	Diameter 51.5	Built 1994
Highland Water Tower	1,000,000	141.60	40.00	Diameter 74.8 1/4	Built 2011
Bay View Heights Steel Tank	100,000	550.00	26.00	Diameter 26	Built 1972
Proctor Tank	400,000	825.00	142.00	Diameter 51.5	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 Stage, 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	Aurora	Single Stage Centrifugal	1	Each unit direct connected to 125 hp, 440 volt, 60 cycle, 3-phase U.S. Induction motor	3,500	1,200
			2 -- 2002			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	3,500	1,200
						2			

WATER UTILITY ACTIVITIES 2021

UTILITY OPERATIONS

ACTIVITY	WORK COMPLETED
Repair of water services	22
Repair of valves	31
Repair of main breaks	106
Install services	50
Fire Hydrants	
Replaced hydrants	32
Repaired hydrants	192
New hydrants	1
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

ACTIVITY	WORK COMPLETED
Meter Truck	
Gauge water service	107
Applications (water & gas)	9,326
Delinquent account service shut off/restore (water & gas)	1,458
Emergency (water & gas)	398
General (water & gas)	1,228
Meter Shop	
Water meters repaired	444
Water meters tested	612
Plumbing truck orders (water & gas)	372

**G
A
S**

**Gas Utility
Statement of Net Income
For The Year Ended December 31, 2020 and 2021
(Unaudited)**

	2020		2021
<u>Operating Revenue</u>			
Residential Sales	\$ 22,093,111		\$ 24,124,430
Commercial & Industrial - Firm	8,436,053		9,923,401
Commercial & Industrial - Interruptible	4,457,990		5,388,568
Servicing Appliances	938,932		1,006,006
Other	516,385		547,247
Total Operating Revenue	\$ 36,442,471		\$ 40,989,652
<u>Operating Expense</u>			
Director's Office	129,162		134,115
Capital Related Expenses	1,551,722		1,615,572
Utility General Expense	(233,666)		(1,077,630)
Engineering	1,131,630		1,134,814
Utility Operations	2,020,528		2,004,228
Natural Gas	19,793,134		26,084,434
Customer Service	5,690,907		5,533,072
Total Operating Expense	(30,083,417)		(35,428,605)
Operating Income	6,359,054		5,561,047
<u>Other Revenue</u>			
Contributed Assets	1,326,325		105,745
Gain or Loss on Sale of Fixed Assets	17,363		(4,117)
Interest Income	62,885		(73,767)
Total Other Revenue	1,406,573		27,861
<u>Other Expenses and Transfers</u>			
Interest Expense	37,042		27,713
Transfers to Other Funds			
Payment to City in Lieu of Taxes	2,778,917		2,550,973
Non-Capital Improvements	70,093		59,474
Reimbursement for MIS Programmer	59,975		59,075
Credit Home Energy Fund for Rebate	311,000		0
Total Other Expenses and Transfers	(3,257,027)		(2,697,235)
Net Income or Loss	\$ 4,508,600		\$ 2,891,673

Gas Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)

	Assets & Deferred Outflows	
	2020	2021
<u>Current Assets</u>		
Cash	\$ 5,838,430	\$ 1,397,025
Restricted Cash and Equivalents:		
Customer Deposits	2,010,118	1,845,869
Accounts Receivable (Net)	5,286,171	8,084,519
Special Assessments	337	198
Due from Other Funds	1,103	0
Advances to Other Funds	89,000	39,000
Due from Other Governments	1,229,127	1,226,949
Inventory	1,314,974	1,250,047
Prepaid Expenses	2,284,698	4,902,215
Prepaid Gas	964,884	1,562,817
	<u>\$ 19,018,842</u>	<u>\$ 20,308,639</u>
<u>Utility Plant</u>		
In Service	85,610,178	89,473,357
Construction	5,592,038	5,228,037
	<u>91,202,216</u>	<u>94,701,394</u>
Less Accumulated Depreciation	(30,654,187)	(31,994,138)
	<u>60,548,029</u>	<u>62,707,256</u>
<u>Other Assets</u>		
Special Assessments Receivable	6,272	6,272
	<u>6,272</u>	<u>6,272</u>
<u>Total Assets</u>		
	<u>79,573,143</u>	<u>83,022,167</u>
<u>Deferred Outflows</u>		
Deferred Pension Obligation Outflows	464,446	2,232,684
Deferred OPEB Outflows	0	950,459
	<u>464,446</u>	<u>3,183,143</u>
<u>Total Assets and Deferred Outflows</u>		
	<u>\$ 80,037,589</u>	<u>\$ 86,205,310</u>

Gas Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)

	Liabilities & Net Assets	
	2020	2021
<u>Current Liabilities</u>		
Accounts Payable	\$ 2,747,761	\$ 3,658,819
Contracts Payable	693,548	729,678
Leases Payable	242,932	252,227
Due to Other Funds	21,700	26,400
Due to Other Governments	87,501	108,828
Accrued Interest Payable	13,959	10,156
Accrued Salaries Payable	219,202	233,068
Accrued Vacations Payable	429,264	421,060
Unearned Revenue	860,618	1,034,431
Customer Deposits	<u>2,010,118</u>	<u>1,845,869</u>
Total Current Liabilities (Payable from Current Assets)	\$ <u>7,326,603</u>	\$ <u>8,320,536</u>
<u>Long Term Liabilities</u>		
Accrued Vacations Payable	0	30,208
Leases Payable	648,775	396,549
Pension Liability	4,560,699	3,123,947
Total Long Term Liabilities	<u>5,209,474</u>	<u>3,550,704</u>
Total Liabilities	<u>12,536,077</u>	<u>11,871,240</u>
<u>Deferred Inflows</u>		
Deferred Pension Obligation Inflows	270,323	3,016,039
Deferred OPEB Inflows	<u>2,245,439</u>	<u>3,440,608</u>
Total Deferred Inflows	<u>2,515,762</u>	<u>6,456,647</u>
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	59,656,322	62,058,480
Unrestricted	<u>5,329,428</u>	<u>5,818,943</u>
Total Net Assets	<u>64,985,750</u>	<u>67,877,423</u>
Total Liabilities, Deferred Inflows, and Net Assets	\$ <u><u>80,037,589</u></u>	\$ <u><u>86,205,310</u></u>

**City of Duluth
Gas Utility Capital Leases Payable
December 31, 2021**

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2020</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2021</u>
Gas Utility								
Capital Leases								
AMR System	\$ 3,094,654	3/28/2008	2/1/2024	\$ 891,707	\$ 0	\$ 0	\$ 242,932	\$ 648,775
Capital Lease Total				\$ 891,707	\$ 0	\$ 0	\$ 242,932	\$ 648,775
Total Gas Utility Capital Leases				<u>\$ 891,707</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 242,932</u>	<u>\$ 648,775</u>

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2022	\$ 252,227	\$ 22,221	\$ 274,448
2023	261,876	12,571	274,447
2024	134,672	2,552	137,224
	<u>\$ 648,775</u>	<u>\$ 37,344</u>	<u>\$ 686,119</u>

Gas Fund
Schedule of Fixed Assets
Year Ending December 31, 2021

	<u>Balance Jan. 1, 2021</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2021</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 426,078	\$ 0	\$ 0	\$ 426,078	\$ 0	\$ 426,078
Infrastructure	74,284,073	3,830,489	0	78,114,562	23,816,297	54,298,265
Buildings and Structures	2,592,124	0	0	2,592,124	1,146,787	1,445,337
Equipment and Tools	8,307,903	263,072	230,382	8,340,593	7,031,054	1,309,539
Work in Progress	<u>5,592,038</u>	<u>3,494,500</u>	<u>3,858,501</u>	<u>5,228,037</u>	<u>0</u>	<u>5,228,037</u>
Total	<u>\$ 91,202,216</u>	<u>\$ 7,588,061</u>	<u>\$ 4,088,883</u>	<u>\$ 94,701,394</u>	<u>\$ 31,994,138</u>	<u>\$ 62,707,256</u>

GAS STATISTICS

	2021	2020	2019	2018	2017	2016	2015
Gas sold MCF	5,678,028	5,731,748	5,984,783	5,603,857	5,218,978	4,770,804	4,766,168
Cost of gas sold	\$ 25,527,796	\$ 19,293,616	\$ 20,067,111	\$ 20,731,398	\$ 18,991,411	\$ 15,794,076	\$ 18,713,748
Cost per MCF sold	\$ 4.4959	\$ 3.3661	\$ 3.3530	\$ 3.6995	\$ 3.6389	\$ 3.3106	\$ 3.9264
Other operating costs, including maintenance(*)	\$ 8,337,025	\$ 9,274,230	\$ 9,942,276	\$ 10,587,922	\$ 10,528,802	\$ 9,409,848	\$ 9,543,411
Cost per MCF sold	\$ 1.4683	\$ 1.6180	\$ 1.6613	\$ 1.8894	\$ 2.0174	\$ 1.9724	\$ 2.0023
Interest charges	\$ 27,713	\$ 37,042	\$ 46,251	\$ 58,802	\$ 86,980	\$ 122,540	\$ 179,433
Cost per MCF sold	\$ 0.0049	\$ 0.0065	\$ 0.0077	\$ 0.0105	\$ 0.0167	\$ 0.0257	\$ 0.0376
Depreciation charge(**)	\$ 1,563,784	\$ 1,515,571	\$ 1,515,603	\$ 1,491,899	\$ 1,409,755	\$ 1,376,239	\$ 1,374,853
Cost per MCF sold	\$ 0.2754	\$ 0.2644	\$ 0.2532	\$ 0.2662	\$ 0.2701	\$ 0.2885	\$ 0.2885
Total cost per MCF sold	\$ 6.2445	\$ 5.2550	\$ 5.2753	\$ 5.8656	\$ 5.9431	\$ 5.5971	\$ 6.2548
Operating revenue	\$ 40,989,652	\$ 36,442,471	\$ 39,698,821	\$ 39,104,406	\$ 36,120,190	\$ 31,207,959	\$ 35,494,037
per MCF	\$ 7.2190	\$ 6.3580	\$ 6.6333	\$ 6.9781	\$ 6.9209	\$ 6.5414	\$ 7.4471
Gas meters in service	29,794	29,322	29,101	28,505	28,617	28,313	27,873
Gas main miles	565.80	560.50	556.60	553.40	549.40	543.80	539.40
Gas transmission miles	5.30	5.30	5.30	5.30	5.30	5.30	5.30
Gas meters per mile of main	52.66	52.31	52.28	51.51	52.09	52.07	51.67

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

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

LENGTH OF GAS MAINS IN FEET

Diameter - Inches	Polyethylene	Steel	Total	Valves
1/2	2,209		2,209	
1	50,841		50,841	78
1 1/4		3,183	3,183	30
2	1,921,919	19,289	1,941,208	1,009
3	397,469	4,561	402,030	269
4	2,760	34,007	36,767	68
6	78,763	57,401	136,164	118
8	42,942	131,099	174,041	96
10	5	120,522	120,527	44
12	17,895	10,431	28,326	20
14			0	
16		92,193	92,193	8
Totals	2,514,803	472,686	2,987,489	1,740

Total Miles Gas Main 565.8

Added in 2021 5.3

Pressure Regulators 34

Gas Valves added in 2021 9

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 2021

UTILITY OPERATIONS

ACTIVITY	WORK COMPLETED
Services and Mains	
Installations	11 services, 2 mains
Cutoffs	36 services, 6 mains
Valves inspected and operated	450 completed
Hits	29

CUSTOMER SERVICE

ACTIVITY	WORK COMPLETED
Service Workorders Completed	
Appliance service	4,000
Furnace cleaning	3,619
Tin shop/venting	500
Meter Truck	
Applications (water & gas)	9,326
Delinquent account service shut off/restore (water & gas)	1,458
Emergency (water & gas)	398
General (water & gas)	1,228
Meter Shop	
Gas meters repaired	903
Gas meters tested	1,415
Plumbing truck orders (water & gas)	372
Other	
Gas leak detection surveys	13,957
Inspect and paint gas meters and risers	3,690

**S
E
W
E
R**

**Sewer Utility
Statement of Net Income
For The Year Ended December 31, 2020 and 2021
(Unaudited)**

	2020		2021
<u>Operating Revenue</u>			
General Sewage Revenue	\$ 17,312,572		\$ 17,950,464
Other	214,075		247,153
Total Operating Revenue	\$ 17,526,647		\$ 18,197,617
<u>Operating Expense</u>			
Director's Office	101,772		108,830
Capital Related Expenses	1,617,877		1,612,971
Utility General Expense	(145,980)		(452,912)
Engineering	570,519		622,994
Utility Operations	2,043,743		2,084,574
Wastewater Treatment	9,713,161		9,701,041
Inflow and Infiltration	894,346		631,600
Customer Service	551,502		403,949
Total Operating Expense	(15,346,940)		(14,713,047)
Operating Income	2,179,707		3,484,570
<u>Other Revenue</u>			
Contributed Assets	4,838,364		1,040,374
Gain or Loss on Sale of Fixed Assets	1,847		(794)
Transfer from Clean Water Fund to Cover Restricted Cash	70,265		70,265
Interest Income	11,667		(8,292)
Total Other Revenue	4,922,143		1,101,553
<u>Other Expenses and Transfers</u>			
Transfer to Other Funds			
Non-Capital Improvements	70,093		59,474
Reimbursement for MIS Programmer	59,975		59,075
Interest on Long Term Debt	90,509		57,411
Total Other Expenses and Transfers	(220,577)		(175,960)
Net Income or Loss	\$ 6,881,273		\$ 4,410,163

**Sewer Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)**

	Assets & Deferred Outflows	
	2020	2021
<u>Current Assets</u>		
Cash	\$ 1,014,946	\$ 2,577,472
Restricted Cash and Equivalents:		
Construction	836,142	955,385
Accounts Receivable (Net)	1,679,167	1,705,642
Special Assessments	19,401	12,826
Due from Other Funds	563	0
Due from Other Governments	1,624,954	813,806
Inventory	101,020	87,682
Prepays	<u>3,757,065</u>	<u>5,000,366</u>
Total Current Assets	\$ <u>9,033,258</u>	\$ <u>11,153,179</u>
<u>Utility Plant</u>		
In Service	80,752,889	89,275,200
Construction	<u>7,832,969</u>	<u>1,432,293</u>
Less Accumulated Depreciation	<u>(23,327,579)</u>	<u>(24,854,544)</u>
Total Utility Plant Assets	<u>65,258,279</u>	<u>65,852,949</u>
<u>Other Assets</u>		
Special Assessments Receivable	<u>78,666</u>	<u>69,366</u>
Total Other Assets	<u>78,666</u>	<u>69,366</u>
Total Assets	<u>74,370,203</u>	<u>77,075,494</u>
<u>Deferred Outflows</u>		
Deferred Loss from Debt Refunding	1,281	0
Deferred Pension Obligation Outflows	194,357	924,076
Deferred OPEB Outflows	<u>0</u>	<u>253,176</u>
Total Deferred Outflows	<u>195,638</u>	<u>1,177,252</u>
Total Assets and Deferred Outflows	\$ <u><u>74,565,841</u></u>	\$ <u><u>78,252,746</u></u>

Sewer Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)

	Liabilities & Net Assets	
	2020	2021
<u>Current Liabilities</u>		
Accounts Payable	\$ 149,060	\$ 45,349
Contracts Payable	750,029	233,496
Notes Payable	256,000	231,000
Leases Payable	228,209	236,940
Due to Other Funds	11,386	8,726
Due to Other Governments	828,705	790,087
Interest Payable	36,229	25,535
Accrued Salaries Payable	86,552	93,898
Vacations Payable	186,160	179,244
Unearned Revenue	53,242	43,778
Bonds Payable	689,765	389,765
Total Current Liabilities (Payable from Current Assets)	\$ 3,275,337	\$ 2,277,818
<u>Long Term Liabilities</u>		
Notes Payable	381,000	150,000
Leases Payable	609,456	372,515
Pension Liability	1,908,514	1,292,957
Bonds Payable	985,493	595,729
Less Unamortized Bond Discount or Premium	33,706	18,096
Total Long Term Liabilities	3,918,169	2,429,297
Total Liabilities	7,193,506	4,707,115
<u>Deferred Inflows</u>		
Deferred Pension Obligation Inflows	113,122	1,248,295
Deferred OPEB Inflows	909,595	1,537,555
Total Deferred Inflows	1,022,717	2,785,850
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	62,075,931	63,858,904
Legal Restricted Assets	836,142	955,385
Unrestricted	3,437,545	5,945,492
Total Net Assets	66,349,618	70,759,781
Total Liabilities, Deferred Inflows, and Net Assets	\$ 74,565,841	\$ 78,252,746

City of Duluth
Sewer Utility Bonds, Notes and Capital Leases Payable
December 31, 2021

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2020</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2021</u>
Sewer Utility								
Bonds								
Revenue and General Obligation	\$ 1,244,000	2/19/2009	2/1/2024	\$ 390,258	\$ 0	\$ 0	\$ 94,765	\$ 295,493
Revenue and General Obligation	905,000	12/17/2009	2/1/2025	355,000	0	0	65,000	290,000
Revenue and General Obligation Refunding	2,000,000	11/27/2012	2/1/2021	305,000	0	0	305,000	0
Revenue and General Obligation Refunding	1,110,000	11/5/2015	2/1/2023	505,000	0	0	165,000	340,000
Revenue and General Obligation Refunding	350,000	11/5/2015	2/1/2022	120,000	0	0	60,000	60,000
Bond Total				<u>\$ 1,675,258</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 689,765</u>	<u>\$ 985,493</u>
Notes								
Public Facilities Authority (Note 1)	\$ 1,973,033	7/12/2007	8/20/2022	\$ 312,000	\$ 0	\$ 0	\$ 155,000	\$ 157,000
Public Facilities Authority (Note 3)	279,117	11/18/2011	8/20/2021	28,000	0	0	28,000	0
Public Facilities Authority	1,255,464	10/29/2014	8/20/2024	297,000	0	0	73,000	224,000
Note Total				<u>\$ 637,000</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 256,000</u>	<u>\$ 381,000</u>
Capital Leases								
AMR System	\$ 2,907,099	3/28/2008	2/1/2024	\$ 837,665	\$ 0	\$ 0	\$ 228,209	\$ 609,456
Capital Lease Total				<u>\$ 837,665</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 228,209</u>	<u>\$ 609,456</u>
Total Sewer Utility Bonds, Notes, and Capital Leases				<u>\$ 3,149,923</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 1,173,974</u>	<u>\$ 1,975,949</u>

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2022	\$ 857,705	\$ 53,551	\$ 911,256
2023	664,216	29,399	693,615
2024	379,028	9,698	388,726
2025	75,000	1,500	76,500
	<u>\$ 1,975,949</u>	<u>\$ 94,148</u>	<u>\$ 2,070,097</u>

**Sewer Fund
Schedule of Fixed Assets
Year Ending December 31, 2021**

	<u>Balance Jan. 1, 2021</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2021</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 161,612	\$ 0	\$ 0	\$ 161,612	\$ 0	\$ 161,612
Infrastructure	67,404,896	8,519,498	0	75,924,394	15,575,996	60,348,398
Buildings and Structures	7,101,150	0	0	7,101,150	4,148,581	2,952,569
Equipment and Tools	6,085,231	39,825	37,012	6,088,044	5,129,967	958,077
Work in Progress	<u>7,832,969</u>	<u>2,104,849</u>	<u>8,505,525</u>	<u>1,432,293</u>	<u>0</u>	<u>1,432,293</u>
Total	<u>\$ 88,585,858</u>	<u>\$ 10,664,172</u>	<u>\$ 8,542,537</u>	<u>\$ 90,707,493</u>	<u>\$ 24,854,544</u>	<u>\$ 65,852,949</u>

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT

	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.	1 - 23 2 - 23 1 & 2 - 35	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	PS0410006	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 #2772 gen set
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	Triplex Submersible 2016	228,960 gal. 15	8,863.8 gal.	1 - 808 2 - 808	KSB	83 hp 83 hp 83 hp	480 3	105 105 105	8"	SA1090003	Permanent SG 250kW
9	PS1090009	Duplex Submersible New motors 2011	165,888 gal. 15	3,941 gal.	1 - 800 2 - 800 3 - 800	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

	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 2013	 23		1 - 1400 2 - 1400 1 & 2 - 2300	KSB	32 hp 32 hp	480 3	38.9 38.9	10"	SW0300016	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 2012	2,880 gal. 28	409 gal.	1 - 124 2 - 104 1 & 2 - 169	Meyers	1 - 2 hp 2 - 2 hp	240 3	1 - 9.0 2 - 9.0	4"	SW1230034	All 60 Amp
20	PS0090020	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
21	PS0020021	Duplex Submersible 2007	3,600 gal. 30	480 gal.	1 - 125 2 - 125	KSB	1 - 10 hp 2 - 10 hp	208 3	1 - 33.4 2 - 30.1	4"	SA0030035	All 60 Amp

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT

	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.
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 Submersible 2014	3,168 gal. 11	295.5 gal.	1 - 100 2 - 100 1 & 2 - 118	KSB	1 - 5 hp 2 - 5 hp	240 1	15.4 15.4	4"	SA0960002	All 60 Amp
24	NEW PIER B	Duplex Submersible 2016			1 - 150 2 - 150 1 & 2 - 165	KSB	1 - 5 hp 2 - 5 hp	208 3	17.7 17.7		SA0400052	60 Amp
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 2008	5,184 gal. 13	456.3 gal.	1 - 159 2 - 159 1 & 2 - 238	Barnes	1 - 2 hp 2 - 2 hp	240 3	1 - 9 2 - 9	1.25"	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	208 3	1 - 9.2 2 - 9.2	6"	SA0580129	All 60 Amp
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"	SA0600032	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

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT

	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.	
33	PS1280033	Duplex Submersible 1995	NA	420 gal.	1 - 140 2 - 140 1 & 2 - 210	KSB	1 - 3.25 hp 2 - 3.25 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	PS0630035	Duplex Submersible 2007			1 - 200 2 - 200 1 & 2 - 300	KSB	1 - 7.5 2 - 7.5	208 3	1 - 26.7 2 - 26.7	4"	SA0610012	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 2013	20,880 gal. 23	643.2 gal.	1 - 282 2 - 280 1 & 2 - 359	KSB	1 - 5 hp 2 - 5 hp	208 3	1 - 17.7 2 - 17.7	6"	SA0180001	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	
41	PS0680041	Duplex Submersible 2002	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 - 187 2 - 189 3 - 200	KSB	1 - 15 hp 2 - 15 hp	240 3	1 - 43.5 2 - 43.5	6"	SA1280001	2767 2765 200 Amp	

PUMPING STATIONS - SEWAGE PUMPING EQUIPMENT

	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.
44	PS0010144	Duplex Submersible 2000			1 - 179 2 - 173 3 - 200	KSB	1 - 10 hp 2 - 10 hp	208	29 29	6"	PS1280143	2767 2765 200 Amp
45	PS0880045	Triplex Submersible 2012		2 MG	1 - 2200 2 - 2200 3 - 2200	KSB	1 - 50 hp 2 - 50 hp 3 - 50 hp	480	69 69 69	12"	SW0830136	Permanent on site 2778 100kW
46	PS0090046	Duplex Submersible Grinder ~2005				Barnes	1 - 2 hp 2 - 2 hp	240	16 16	1.25"	SA0090132	
47	PS0090047	(in Bethany Crisis Shelter) ~2005				Barnes	1 - 1 hp 2 - 1 hp	240	9.2 9.2	1.25"	SA0090083	
48	PS0080048					Barnes	1 - 2 hp 2 - 2 hp	208	9.2 9.2		SW0080024	60 Amp
49	PS0410049	Duplex Submersible		8 MG		KSB	1 - 50 hp 2 - 50 hp	480	69.4 69.4	24"		Permanent 2772
50	PW042001	Storage Basin 2007		1 MG	No Pumps	Gravity In Gravity Out						
51	PS0430001	Storage Basin Oct. 2010		3 MG		KSB	1 - 10 hp 2 - 10 hp	208	32.7 32.7		SA0930190	Permanent on site 2777
53	PS0060001	Duplex Submersible 2012			1 - 525 2 - 525 1 & 2 - 1100	KSB	1 - 10 hp 2 - 10 hp	208	23.2 23.2	6"	SW00800024	2765 2767

LENGTH OF SANITARY SEWER PIPE IN FEET

PIPE MATERIAL

Dia. Inches	Force Main	ABS	ACP	BRA	CI/DI	CIPP	CMP	HDPE	PVC	RCP	UNK	VCP	Totals
1	113												113
1 1/4	328												328
1 1/2	1,575												1,575
2	27,975								523				28,498
3	16,927												16,927
4	25,315				272								25,587
6	12,938		93			202			1,551		176	5,760	20,720
8	9,606	7,046	4,490		11,809	242,806		1,387	480,492	305	1,886	765,436	1,525,263
9						6,500						19,745	26,245
10	5,452		36		3,607	35,061		45	34,151	3,301	637	62,453	144,743
12	4,213		51		1,392	18,181		513	21,658	42,488		38,696	127,192
14					163								163
15						9,249			11,917	32,598		22,678	76,442
16	5,299				495			1,000		48			6,842
18				348	79	14,521	919		1,133	10,550		16,491	44,041
20	753			118	12	1,114				466		2,112	4,575
21					111	438			1,094	6,460	7	654	8,764
22				1,677		895						1,223	3,795
24	704			467	1,295	2,480			693	10,136		4,079	19,854
26				479		564				419			1,462
27						456				720		530	1,706
28				1,386									1,386
30				499	304	1,284				2,875			4,962
32						1,885				403			2,288
34						562							562
36				1,425	3,060	358			105	1,402			6,350
42				467				387					854
45				467									467
48				237	35			1,167		634			2,073
55				80									80
UNK	4,790								345	9	444	342	5,930
Total	115,988	7,046	4,670	7,650	22,634	336,556	919	4,499	553,662	112,814	3,150	940,199	2,109,787

Note: The City of Duluth Sanitary Sewer system includes 8,696 manholes.

Miles of Pipe- 399.6

ABS - Acrylonitrile Butadiene Styrene

CIPP - Cured in Place Pipe

RCP - Reinforced Concrete Pipe

ACP - Asbestos Cement Pipe

CMP - Corrugated Metal Pipe

UNK - Unknown

BRA - Brick Arch

HDPE - High Density Polyethylene

VCP - Vitrified Clay Pipe

CI/DI - Cast or Ductile Iron

PVC - Polyvinyl Chloride

Note: Pipe quantities are derived from Geographic Information System.

SANITARY SEWER ACTIVITIES 2021

ACTIVITY	WORK COMPLETED
Sewer calls	186
Cleaning sanitary sewer pipe	695,056 ft
Televising sanitary sewer pipe	204,887 ft
I & I inspections (Inflow and Infiltration Grant Program)	
Homes inspected	50
Point of Sale certificates	1,580
Point of Sale waivers	10
Laterals rehabilitated	99
Inspections for connections and disconnections	
Connections	81
Disconnections	14

**C
L
E
A
N

W
A
T
E
R**

**Clean Water Utility
Statement of Net Income
For The Year Ended December 31, 2020 and 2021
(Unaudited)**

	2020	2021
<u>Operating Revenue</u>		
Charges for Services	\$ <u>1,638,279</u>	\$ <u>1,639,309</u>
Total Operating Revenue	\$ <u>1,638,279</u>	\$ <u>1,639,309</u>
<u>Operating Expense</u>		
Clean Water Expense	<u>987,770</u>	<u>827,812</u>
Total Operating Expense	<u>(987,770)</u>	<u>(827,812)</u>
Operating Income	<u>650,509</u>	<u>811,497</u>
<u>Other Revenue</u>		
Interest Income	<u>5,363</u>	<u>(4,957)</u>
Total Other Revenue	<u>5,363</u>	<u>(4,957)</u>
<u>Other Expenses and Transfers</u>		
Transfer to Sewer Fund to Cover Restricted Cash	70,265	70,265
Interest on Long Term Debt	<u>88,352</u>	<u>71,523</u>
Total Other Expenses and Transfers	<u>(158,617)</u>	<u>(141,788)</u>
Net Income or Loss	\$ <u><u>497,255</u></u>	\$ <u><u>664,752</u></u>

**Clean Water Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)**

	Assets	
	2020	2021
<u>Current Assets</u>		
Cash	\$ 671,615	\$ 690,081
Accounts Receivable (Net)	151,342	162,082
Total Current Assets	\$ 822,957	\$ 852,163
<u>Utility Plant</u>		
In Service	40,378,099	40,378,099
Less Accumulated Depreciation	(4,565,916)	(5,132,787)
Total Utility Plant Assets	35,812,183	35,245,312
Total Assets	\$ 36,635,140	\$ 36,097,475

**Clean Water Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)**

	Liabilities & Net Assets	
	2020	2021
<u>Current Liabilities</u>		
Accounts Payable	\$ 0	\$ 6,000
Notes Payable	1,186,000	1,144,000
Interest Payable	28,296	22,135
Unearned Revenue	6,165	5,145
Bonds Payable	15,235	15,235
Total Current Liabilities (Payable from Current Assets)	\$ 1,235,696	\$ 1,192,515
<u>Long Term Liabilities</u>		
Notes Payable	4,262,000	3,118,000
Bonds Payable	47,507	32,271
Total Long Term Liabilities	4,309,507	3,150,271
Total Liabilities	5,545,203	4,342,786
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	30,301,441	30,935,806
Unrestricted	788,496	818,883
Total Net Assets	31,089,937	31,754,689
Total Liabilities and Net Assets	\$ 36,635,140	\$ 36,097,475

**City of Duluth
Clean Water Utility Bonds and Notes Payable
December 31, 2021**

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2020</u>	<u>Issued</u>	<u>Draw Down</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2021</u>
Clean Water Utility								
Bonds								
Revenue and General Obligation	\$ 200,000	2/19/2009	2/1/2024	\$ 62,742	\$ 0	\$ 0	\$ 15,235	\$ 47,507
Bond Total				\$ 62,742	\$ 0	\$ 0	\$ 15,235	\$ 47,507
Notes								
Public Facilities Authority	\$ 796,835	8/20/2009	8/20/2024	\$ 241,000	\$ 0	\$ 0	\$ 58,000	\$ 183,000
Public Facilities Authority	2,414,150	11/25/2009	8/20/2024	752,000	0	0	182,000	570,000
Public Facilities Authority	3,753,059	7/28/2010	8/20/2025	1,331,000	0	0	260,000	1,071,000
Public Facilities Authority	8,504,224	7/28/2010	8/20/2025	2,968,000	0	0	579,000	2,389,000
Public Facilities Authority	278,149	11/18/2011	8/20/2021	30,000	0	0	30,000	0
Public Facilities Authority	265,418	11/30/2011	8/20/2021	29,000	0	0	29,000	0
Public Facilities Authority	476,537	9/10/2012	8/20/2022	97,000	0	0	48,000	49,000
Note Total				\$ 5,448,000	\$ 0	\$ 0	\$ 1,186,000	\$ 4,262,000
Total Clean Water Utility Bonds and Notes				\$ 5,510,742	\$ 0	\$ 0	\$ 1,186,000	\$ 4,309,507

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2022	\$ 1,159,235	\$ 60,694	\$ 1,219,929
2023	1,125,790	43,988	1,169,778
2024	1,142,482	27,504	1,169,986
2025	882,000	11,096	893,096
	\$ 4,309,507	\$ 143,282	\$ 4,452,789

**Clean Water Fund
Schedule of Fixed Assets
Year Ending December 31, 2021**

	<u>Balance Jan. 1, 2021</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2021</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 525,000	\$ 0	\$ 0	\$ 525,000	\$ 0	\$ 525,000
Infrastructure	39,680,981	0	0	39,680,981	4,960,669	34,720,312
Equipment and Tools	172,118	0	0	172,118	172,118	0
Work in Progress	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	<u>\$ 40,378,099</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 40,378,099</u>	<u>\$ 5,132,787</u>	<u>\$ 35,245,312</u>

STORMWATER

**Stormwater Utility
Statement of Net Income
For The Year Ended December 31, 2020 and 2021
(Unaudited)**

	2020	2021
<u>Operating Revenue</u>		
Stormwater Charges	\$ 5,382,638	\$ 6,267,455
Other	17,655	30,792
Total Operating Revenue	\$ 5,400,293	\$ 6,298,247
<u>Operating Expense</u>		
Director's Office	101,737	108,775
Capital Related Expenses	511,674	536,114
Utility General Expense	121,208	(109,294)
Engineering	767,732	751,599
Utility Operations	1,823,452	1,758,080
Customer Service	337,083	315,532
Total Operating Expense	(3,662,886)	(3,360,806)
Operating Income	1,737,407	2,937,441
<u>Other Revenue</u>		
Grants Non-Capital	0	6,784
Contributed Assets	63,034	39,146
Gain or Loss on Sale of Fixed Assets	1,831	(779)
Interest Income	15,989	(8,129)
Total Other Revenue	80,854	37,022
<u>Other Expenses and Transfers</u>		
Bond Interest	2,363	(1,807)
Transfer to Other Funds		
Non-Capital Improvements	28,037	23,790
Street Sweeping	450,000	450,000
Reimbursement for MIS Programmer	59,975	59,075
Total Other Expenses and Transfers	(540,375)	(531,058)
Net Income or Loss	\$ 1,277,886	\$ 2,443,405

Stormwater Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)

	Assets & Deferred Outflows	
	2020	2021
<u>Current Assets</u>		
Cash	\$ 1,666,349	\$ 2,976,001
Accounts Receivable	540,006	670,489
Special Assessments	27,644	21,862
Due from Other Funds	591	1,535
Due from Other Governments	63,034	0
Inventory	100,781	89,987
Prepays	<u>2,382,635</u>	<u>3,000,018</u>
Total Current Assets	\$ <u>4,781,040</u>	\$ <u>6,759,892</u>
<u>Utility Plant</u>		
In Service	22,255,663	23,080,230
Construction	<u>2,059,780</u>	<u>2,039,419</u>
Less Accumulated Depreciation	<u>(4,912,781)</u>	<u>(5,327,726)</u>
Total Utility Plant Assets	<u>19,402,662</u>	<u>19,791,923</u>
<u>Other Assets</u>		
Special Assessments Receivable	<u>578</u>	<u>578</u>
Total Other Assets	<u>578</u>	<u>578</u>
Total Assets	<u>24,184,280</u>	<u>26,552,393</u>
<u>Deferred Outflows</u>		
Deferred Pension Obligation Outflows	0	732,502
Deferred OPEB Outflows	<u>146,670</u>	<u>113,885</u>
Total Deferred Outflows	<u>146,670</u>	<u>846,387</u>
Total Assets and Deferred Outflows	\$ <u><u>24,330,950</u></u>	\$ <u><u>27,398,780</u></u>

Stormwater Utility
Statement of Net Assets
For The Year Ending December 31, 2020 and 2021
(Unaudited)

	Liabilities & Net Assets	
	2020	2021
<u>Current Liabilities</u>		
Accounts Payable	\$ 34,486	\$ 30,176
Contracts Payable	77,605	28,464
Due to Other Funds	9,849	4,671
Accrued Interest Payable	3,531	1,797
Accrued Salaries Payable	70,717	73,555
Vacations Payable	147,679	137,642
Unearned Revenue	20,523	17,972
Bonds Payable	<u>140,000</u>	<u>145,000</u>
Total Current Liabilities (Payable from Current Assets)	\$ <u>504,390</u>	\$ <u>439,277</u>
<u>Long Term Liabilities</u>		
Pension Liability	1,440,245	1,024,909
Bonds Payable	145,000	0
Less Unamortized Bond Discount or Premium	<u>7,092</u>	<u>570</u>
Total Long Term Liabilities	<u>1,592,337</u>	<u>1,025,479</u>
Total Liabilities	<u>2,096,727</u>	<u>1,464,756</u>
<u>Deferred Inflows</u>		
Deferred Pension Obligation Inflows	85,366	989,506
Deferred OPEB Inflows	<u>478,624</u>	<u>830,880</u>
Total Deferred Inflows	<u>563,990</u>	<u>1,820,386</u>
<u>Net Assets</u>		
Invested in Capital Assets, Net of Related Debt	19,110,570	19,646,353
Unrestricted	<u>2,559,663</u>	<u>4,467,285</u>
Total Net Assets	<u>21,670,233</u>	<u>24,113,638</u>
Total Liabilities, Deferred Inflows, and Net Assets	\$ <u><u>24,330,950</u></u>	\$ <u><u>27,398,780</u></u>

**City of Duluth
Stormwater Utility Bonds Payable
December 31, 2021**

	<u>Issued</u>	<u>Issue Date</u>	<u>Final Maturity</u>	<u>Principal Outstanding 12/31/2020</u>	<u>Issued</u>	<u>Retired</u>	<u>Principal Outstanding 12/31/2021</u>
Stormwater Utility							
Bonds							
Revenue and General Obligation Refunding	\$ 790,000	11/5/2015	2/1/2022	\$ <u>285,000</u>	\$ <u>0</u>	\$ <u>140,000</u>	\$ <u>145,000</u>
Bond Total				\$ <u>285,000</u>	\$ <u>0</u>	\$ <u>140,000</u>	\$ <u>145,000</u>
Total Stormwater Utility Bonds				\$ <u>285,000</u>	\$ <u>0</u>	\$ <u>140,000</u>	\$ <u>145,000</u>

Future Payments:			
<u>Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2022	\$ 145,000	\$ 2,175	\$ 147,175
	\$ <u>145,000</u>	\$ <u>2,175</u>	\$ <u>147,175</u>

**Stormwater Fund
Schedule of Fixed Assets
Year Ending December 31, 2021**

	<u>Balance Jan. 1, 2021</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance Dec. 31, 2021</u>	<u>Accumulated Depreciation</u>	<u>Book Value</u>
Lands and Grounds	\$ 13,743	\$ 0	\$ 0	\$ 13,743	\$ 0	\$ 13,743
Infrastructure	18,538,738	821,057	0	19,359,795	2,886,247	16,473,548
Buildings and Structures	1,401,897	0	0	1,401,897	490,664	911,233
Equipment and Tools	2,301,285	37,835	34,325	2,304,795	1,950,815	353,980
Work in Progress	<u>2,059,780</u>	<u>838,546</u>	<u>858,907</u>	<u>2,039,419</u>	<u>0</u>	<u>2,039,419</u>
Total	<u>\$ 24,315,443</u>	<u>\$ 1,697,438</u>	<u>\$ 893,232</u>	<u>\$ 25,119,649</u>	<u>\$ 5,327,726</u>	<u>\$ 19,791,923</u>

PUMPING STATIONS - STORMWATER PUMPING EQUIPMENT

	Station Location	Station Type - Year Updated	Pump G.P.M.	Pump Mfg.	Motor HP	Motor Voltage - Phase	Motor F.L.A.	Force Main Size	Discharge Location
1	1801 Minnesota Ave.	Simplex Submersible 1980	760	Flygt CP-3101	5	230 3	13.4	6"	AP1100004
2	13th St. S & St. Louis Ave.	Simplex Submersible 1984	750	Hydromatic S6L	3	230 3	14	6"	AP1090017

LENGTH OF STORM SEWERS IN FEET

Dia. Inch.	BR	CMP	CPD	CI/DI	HDPE	NCP	PPC	PVC	RCP	STN	TMP	TP	VCP	UNK	Totals
2								43					22		65
3					5			5				840			850
4			35,306					504,977	1,034			237		140,877	682,431
6		2,860	128	171	12			22,043	76			245	3,121	17,797	46,453
8		268	50	294	81	48		16,069	592			117	922	4,727	23,168
10		2,717	21	218	47		64	5,212	12,793				3,567	16,361	41,000
12		41,121	13,253	1,444	29,704	779			395,705				2,774	57,396	542,176
13									47						47
14				38					233					301	572
15		7,288	476		9,475	168		3,308	169,297				2,413	31,971	224,396
16		89		502	590				212					781	2,174
17														91	91
18		7,327	936		4,904	50		3,562	108,900				1,277	22,693	149,649
20		50		90	198				1,079					3,111	4,528
21		337		83				49	36,853				1,719	3,488	42,529
22								207	747						954
24	277	3,246	46	202	2,625			612	77,085	160			463	14,422	99,138
26	2,171				160			48	3,866					11,438	17,683
27	75	50			28		84		14,582					929	15,748
28	936	119							3,532					1,704	6,291
29									335						335
30	154	1,114	50		2,482				38,350		143			5,230	47,523
31									320						320
32	372				23				2,761					387	3,543
33									711						711
34							45		621					288	954
36	186	1,565	232		1,171	460	476		32,193					7,382	43,665
38							42		85						127
40									724	659				56	1,439
42	200	134		103	46		242		10,553				85	141	11,504
44		138							3,702					385	4,225
45							111		331						442
46					46									72	118
48	69	1,238		99	265		731	22	17,562	949	78			3,376	24,389
50	240								284					17	541

LENGTH OF STORM SEWERS IN FEET

Dia. Inch.	BR	CMP	CPD	CI/DI	HDPE	NCP	PPC	PVC	RCP	STN	TMP	TP	VCP	UNK	Totals
51									1,019						1,019
52									448						448
54	94						117		10,450					2,560	13,221
56							84		89	58				65	296
58									54						54
60	36	745				27	362		4,173	366				1,553	7,262
62									112					58	170
66		110							631	70				265	1,076
72		517					483		2,310	1,523				401	5,234
73														79	79
78									398						398
84	203	484					112	138	658	1,540					3,135
88									128						128
96		106							754	129				224	1,213
108									608						608
120									748	368				158	1,274
122									54						54
128	105	58							59	726				552	1,500
132									170						170
144									127						127
192									49						49
UNK	666	377	83		152		1,352	2,075	6,496	193			52	91,335	102,781
Totals	5,784	72,058	50,581	3,244	52,014	1,532	4,305	558,370	964,700	6,741	221	1,439	16,415	442,671	2,180,075

Note: The Storm Sewer system also includes 11,134 catch basins and 5,198 manholes.
 Pipe quantities are derived from Geographic Information System.

Miles of Pipe 413

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

TMP - Timber Pipe
 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	TMDL Approved	Area of Concern & Protected Water
Amity Creek	Impaired	Total Suspended Solids	TMDL Approved	Trout stream
E Br Amity	Impaired	Total Suspended Solids	TMDL Approved	Trout stream
Lester River	Impaired	Mercury (water column) Mercury (fish tissue) Total Suspended Solids	TMDL Approved TMDL Approved TMDL Approved	Trout stream
Lester River Beach				
Twin Ponds- Buckingham Creek	Impaired (Upper Twin Ponds)	PCB (fish tissue)- Upper Twin Mercury (fish tissue)- South Twin	Not started Not started	Trout stream
Miller Creek	Impaired	Temperature Lack of coldwater assemblage Aquatic Macroinvertebrates E. coli Chloride	TMDL Approved TMDL in process** TMDL in process** TMDL Approved TMDL in process**	Trout stream
Chester Creek	Impaired High-Risk for Impairment	Mercury E. coli Chloride	Not started TMDL Approved Data suggests TMDL pending	Trout stream Beach TMDL
Keene Creek	Impaired	E. coli Chloride	TMDL Approved TMDL in process**	Trout stream
Kingsbury Creek	Impaired	Fish Bioassessment, Aquatic Macroinvertebrates Total Suspended Solids Chloride	Related to TSS TDML TMDL Approved TMDL in process**	Trout stream, Related to TSS
Mission Creek				Trout stream
Sargent Creek	Impaired	E. coli	TMDL Approved	Trout stream, Beach TMDL
Boy Scout Boat Launch	Impaired	E. coli	Draft TMDL	Related to Sargent Creek
Stewart Creek	Impaired	E. coli	TMDL Approved	Trout stream, Beach TMDL
Clyde Ave Boat Launch	Impaired	E. coli	Draft TMDL/Temp Deferred	Related to Stewart Creek

MPCA MS4 CREEK DATA

MS4 Discharge Waterbodies	Water Quality Status	Cause of Impairment	TMDL Development Status	Other
Tischer Creek	Impaired	E. coli	TMDL Approved	Trout stream
Brighton Beach				
58th Ave E				
50th Ave E				
47th Ave E				
43rd Ave E				
42nd Ave E Beach				
38th Ave E				
37th Ave E				
34th Ave E				
Oregon				
Brewery				
Greys				
Clarkhouse				
Coffee	High-Risk for Impairment	Chloride	Data suggests TMDL pending	Trout stream
Merritt	Impaired	E. coli	TMDL Approved	Trout stream
Lakewalk/16th Ave Beach				
Leif Erickson Beach	Impaired	E. coli	Draft TMDL	Related to Chester Creek
Lakewalk/2nd Ave Beach				
13th St S Beach (Lake)				
15th St S Beach (Harbor)	Impaired	E. coli	Draft TMDL	
20th St S Beach (Harbor)	Impaired	E. coli	Draft TMDL	No Regulated MS4
Lafayette Com Club Beach				
Park Point Beach House				
Sky Harbor Beach (Harbor)	Impaired	E. coli	Draft TMDL	
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				

MPCA MS4 CREEK DATA

MS4 Discharge Waterbodies	Water Quality Status	Cause of Impairment	TMDL Development Status	Other
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/water/water-types-and-programs/minnesotas-impaired-waters-and-tmdls/impaired-waters-list.html>

**Expected to be completed by 2025.

STORMWATER UTILITY ACTIVITIES 2021

ACTIVITY	WORK COMPLETED
Catch basin repair or rehab	83
Culverts repaired or replaced	62
Ditch line (dug or repaired and seeded or sodded)	9,775 ft
Illicit discharges detected and removed	16
Line flushing/cleaning	192 lines, 13,730 ft
Manhole repair or rehab	51
Outfalls inspected	0
Sediment trap cleaning	60%
Stream restoration	0%
Structural sedimentation basins inspected	95%
Televising storm sewer pipe	38 lines, 5,358 ft
Presentations	10
Radio, television, and newspaper articles	15 City of Duluth focused and 102 RSPT Twin Ports focused