

2010 Annual Report

Evanston Water and Sewer Division



136 Years of Serving the Community



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PLANT DATA

General Statistics

Intakes

36-42" - 5,946' depth 28'
48" - 5,300' depth 28'
54" - 5,340' depth 28'
Approximate capacity 150 mgd

Suction Wells

2 – 22' diameter x 74' depth to bottom with traveling screens
1 – 20' diameter x 52' 6" depth top to bottom
Alternate application point of activated carbon and polymers.

Low Lift Pumps

2 – Electric motor driven pumps (2- 30 mgd)
4 – Dual drive electric- natural gas (3 – 15 mgd, 1 – 30 mgd)
Total capacity 135 mgd
Emergency standby 75 mgd

Flash Mix Basin

14' 9" x 14' 9" x 31' 7" deep
Single vertical shaft mixer
Applications point for:
-Alum
-Chlorine
-Fluoride

Slow Mix Settling Basins

2 with five 60' shafts per basin and four paddle wheel sections.
Capacity 2.865 mg each

2 with eight 60' shafts per basins and four paddle wheel sections.
Capacity 4.300 mg each
Flow parallel to shaft.

Double deck-series flow
Retention time at 108 mgd is 3 hours 35 minutes

Filters

12- 3 mgd anthracite capped rapid sand filters
12- 6 mgd anthracite capped rapid sand filters
Total rated capacity 108 mgd at 4 gpm/ft.²
Automatic surface and back wash system on all 24 filters

Underground Storage

Clearwells [8] - 4.5 mg
Reservoir - 5.0 mg
Total Plant Storage - 9.5 mg

High Lift Pumps

Electric Motor Driven Pumps:
1 – 15 mgd, 2 – 25 mgd
1 – Dual drive, electric-natural gas (10 mgd)
2 – Dual drive, electric-natural gas (15 mgd)
1 – Dual drive, electric-natural gas (22 mgd)
1 – Natural gas engine [20 mgd]
Total rated capacity 147 mgd
Emergency 82 mgd

Wash Water Pumps

2 – 20 mgd
2 – 10 mgd

Detention Tank

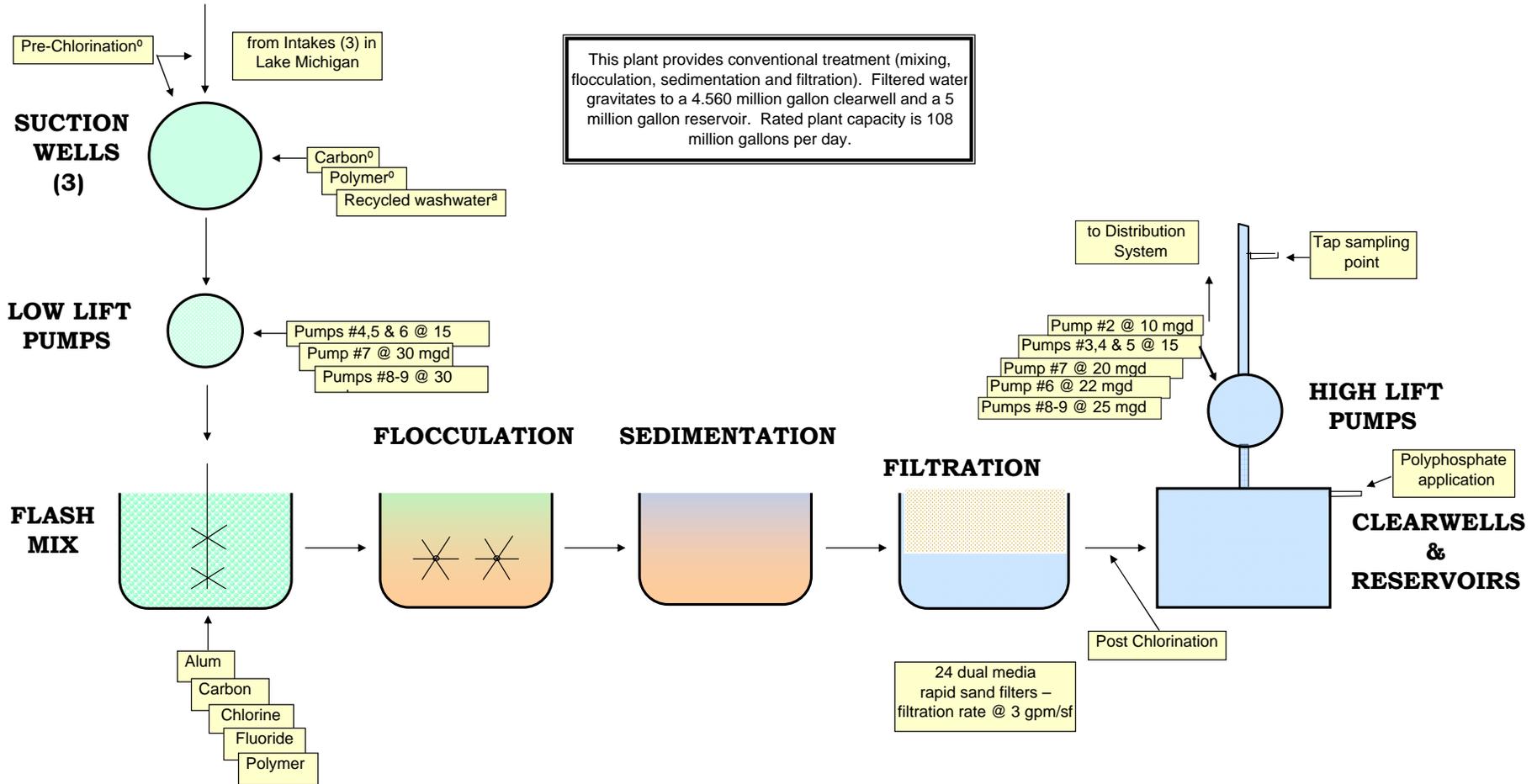
80'W x 192'L x 12'D divided into two sections.
Total capacity 1.1 mg
One submersible sludge pump at 700 gpm

Note:

mg = million gallons
mgd = million gallons per day
gpm = gallons per minute

CITY OF EVANSTON WATER TREATMENT PLANT

555 Lincoln Street / Evanston, Illinois 60201



Volume in millions of gallons	0.109	2.384	13.516	1.061	9.560*
Adjustments to include volumes in connecting piping	0.110	2.390	13.520	1.070	4.570*

Notes:
 °alternate feed point
 ºavg. 1% of raw water flow
 *based on 8.0' depth

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Water Works Improvements (1874 to 2010)

- 1874** -Evanston Community water system established.
- 1913** -12 M.G.D. filter plant construction.
- 1923** - Filter plant expanded to 24 MGD.
- 1934** -A 5 million gallon underground reservoir was constructed at the plant site.
- 1944** -Contracted to supply Skokie.
- 1949** -High lift (finished water) pumping station constructed.
-Filter Plant expanded to 48 MGD.
-Slow Mix Basins 1 & 2 were constructed.
- 1956** -48" intake and low lift (raw water) pump station constructed.
- 36" feeder main to Skokie.
- 1964** -Filter plant expanded to 72 M.G.D.
-Additional 36" feeder main to Skokie.
-Slow mix basins 3 & 4 were constructed.
- 1971** -20 M.G.D. high lift pump and natural gas engine installed.
- 1974** -Filter wash water detention basin, 1.1 M.G. capacity.
- 1976** -Constructed 54" intake 5,340 feet in length. Extended 48" intake 5,300 feet.
- 1981** -Material storage building constructed at south water tank yard.
-Installed 3 new boilers, two 50 H.P. and one 20 H.P.
-Replacement of 5 KV switchgear and motor starting equipment for low lift pumps.
-Upgraded slow mix equipment in basins 1 and 2.
- 1982** -Installation of two 30 M.G.D. low lift pumps.
-Replaced 5 KV motor starter center for high lift pumps.
- 1983** -New chemical building and chemical feed system.
-Installation of a 500 KW emergency generator.
-Rehabilitation of six 1914 and six 1924 filters to increase rate to 3 M.G.D. per filter.
- 1984** -A 5 million gallon standpipe with booster station replaced the 1.5 million gallon elevated tank in southwest Evanston, erected in 1932.
- 1985** -Began selling water to Northwest Water Commission at the rate of 10 MGD, bypassing reservoir until repairs were completed.
-Installed dual drive 22 MGD high lift pump with associated suction/discharge piping.
-Installed two 48" diameter pipes from reservoir to east side of high lift suction tunnel.
-Completed system automation which provided a microprocessor based digital

- control system to perform control and supervisory functions.
- 1986** -A 7.5 million gallon standpipe with booster station replaced the 1.0 million gallon elevated tank in northwest Evanston, erected in 1935.
-Began pumping to NWC reservoir June 1.
- 1988** -Installed two 700 gpm sludge pumps with automatic samplers in the settling basins along with 3400 feet of 8" diameter sludge main from the Filtration Plant to the Chicago Metropolitan Sanitary District interceptor at Lincoln Street and Asbury.
- 1989** -Completed filter control upgrade to microprocessors.
- 1990** -Turndown and extension of 48" raw water intake lines into North and South suction wells.
-West filter influent valves upgraded from 16" to 24".
- 1991** -Upgrade electrical substation and switchgear to 3750 KVA.
-Upgraded West filter effluent piping.
- 1992** -Installation of chlorine feed system to intakes for Zebra Mussel control.
-Installation of a 15 MGD high lift pump replacing one 8 MGD pump and one 6 MGD pump.
-Installed two 48" diameter butterfly valves on suction piping from reservoir to high lift suction wells.
-Installed hydrofluosilicic acid tank and feed system in garage #6.
-Installed 60" diameter flash mix bypass pipe to influent duct of settling basins.
-Replaced slow mix equipment and flushing system in basins 3 and 4.
-Replaced 480V filter plant switchgear.
-Installation of blended phosphate system and initiation of blended phosphate treatment for corrosion control.
- 1994** -Constructed new chemical storage and handling bldg.
- 1995** -Replaced #6 Low Lift Pump Unit gasoline engine with natural gas engine.
- 1996** -Replaced 1949 Filter Building roof.
-Constructed Loading Dock on 1913 Filter building.
- 1997** -Replaced #2 High Lift Pump Unit gasoline with a natural gas engine.
- 1998** -Replaced #5 and #7 dual drive Low Lift Pump unit's gasoline engines with natural gas fueled engines.
- 2000** -Installed individual effluent turbidimeters on all twenty-four filters.
- 2001** -Converted #3 High Lift Pump to dual drive.
-Replaced filter bottoms and rehabbed six filters in 1948 filter addition.
- 2002** -Installation of automatic fixed radio meter reading system completed.
-Replaced effluent settling basin sluice gates with rectangular butterfly valves.
- 2003** -Installed Uninterruptible Power Supply's in Filtration Division and Pumping Division.

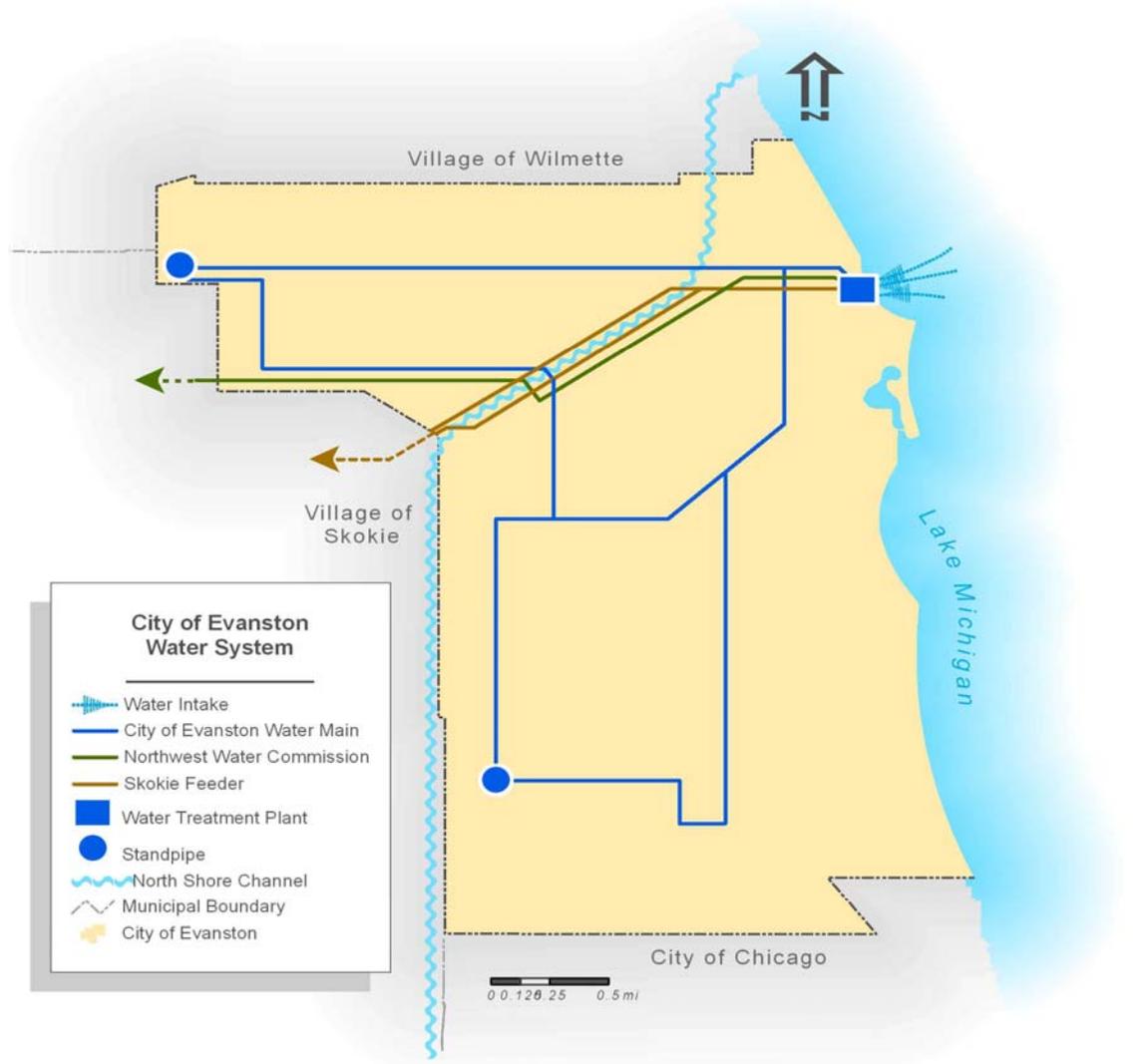
- 2004** -Constructed garages east of the settling basins.
-Constructed an access way to the chemical building from Filtration Division.
-Installed a scrubber.
- 2005** -Replaced #4 Low Lift Pump Unit gasoline engine with natural gas engine.
- 2006** -Replaced #7 Low Lift Pump Unit.
- 2008** -Renovated administrative offices.
-Expanded filter shop area.
- 2009** -Implemented AQUAS (Harris) Utility Billing System.
-Installed Anchor Ice and Zebra Mussel Control Systems in 54" intake.
- 2010** -Installed a 25 kW solar energy facility on the High Lift Building roof.

Service Area & Population

General Statistics

	Area (Square Miles)	2010 Persons*
Evanston	7.8	74,486
Skokie	10.5	64,784
NORTHWEST WATER COMMISSION		
Arlington Heights	15	75,101
Buffalo Grove	4.5	41,496
Palatine	9	68,557
Wheeling	7.5	37,648
Total Served	54.3	362,072

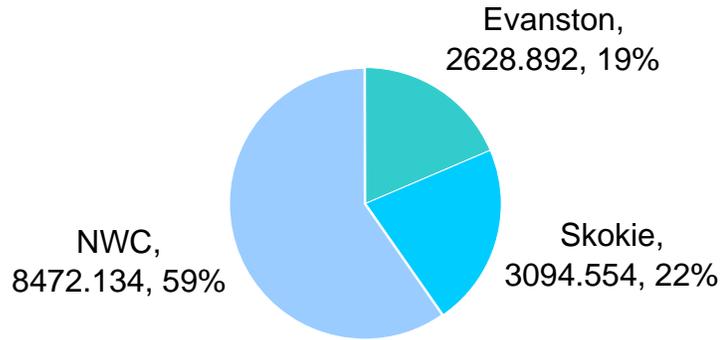
*U.S. Census Bureau 2010 Census



PUMPAGE TO DISTRIBUTION

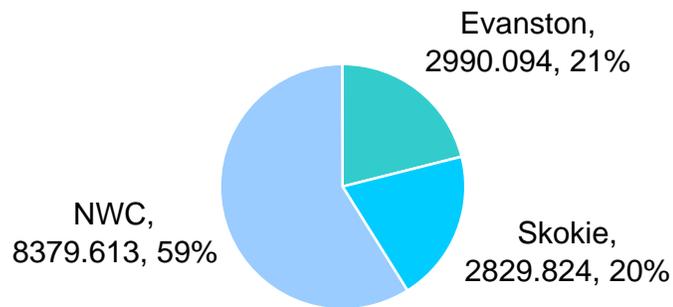
General Statistics

**2010 Pumpage to Distribution
(million gallons)**



2010 Total Pumpage: 14,202,176,000 Gallons

**2009 Pumpage to Distribution
(million gallons)**

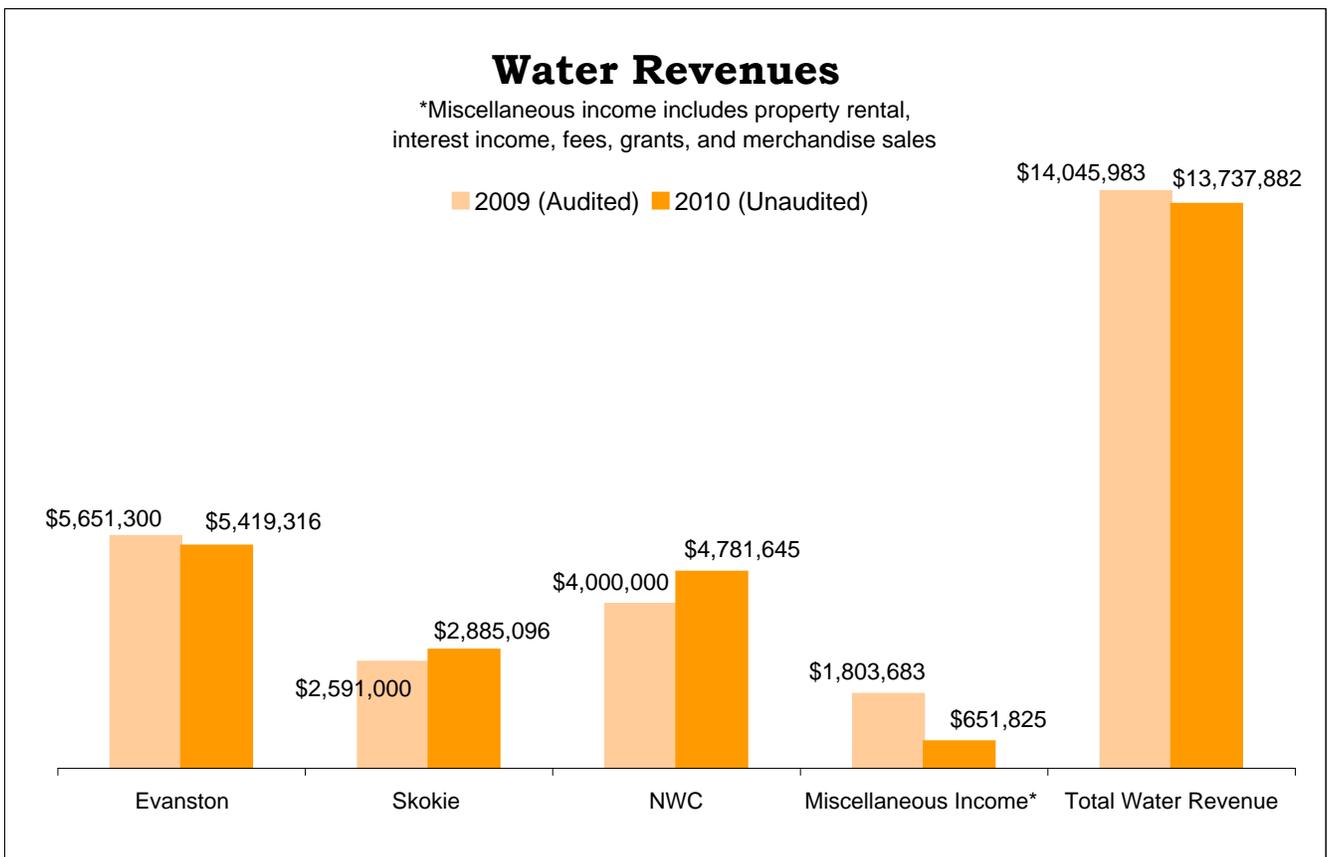


2009 Total Pumpage: 14,199,531,000 Gallons

Water Revenues

	2009 (Audited)	2010 (Unaudited)
Evanston	\$5,651,300	\$5,419,316
Skokie	\$2,591,000	\$2,885,096
NWC	\$4,000,000	\$4,781,645
Miscellaneous Income*	\$1,803,683	\$651,825
Total Water Revenue	\$14,045,983	\$13,737,882

*Miscellaneous income includes property rental, interest income, fees, grants, and merchandise sales.

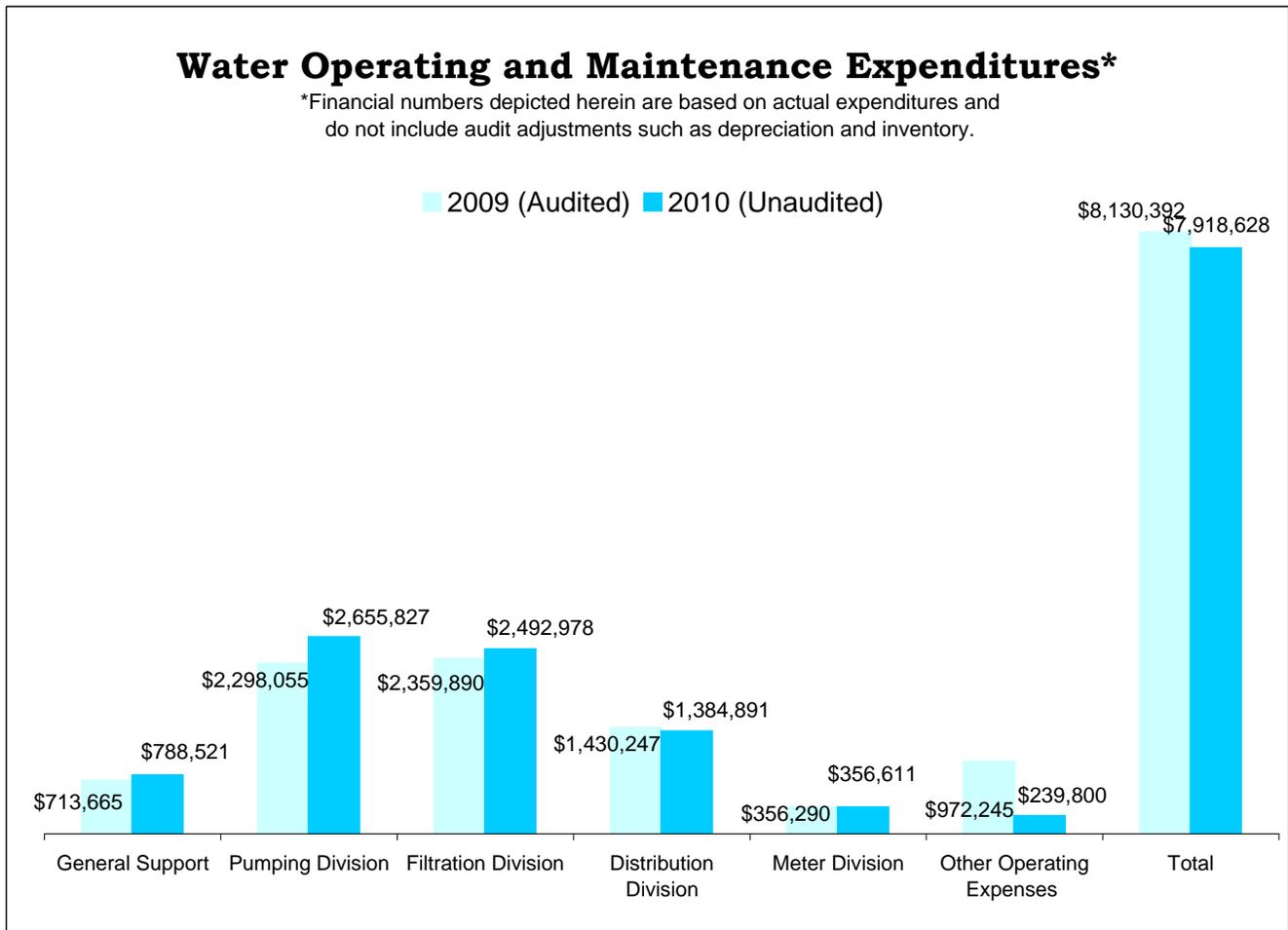


Water Operating & Maintenance Expenditures*

	2009 (Audited)	2010 (Unaudited)
General Support	\$713,665	\$788,521
Pumping Division	\$2,298,055	\$2,655,827
Filtration Division	\$2,359,890	\$2,492,978
Distribution Division	\$1,430,247	\$1,384,891
Meter Division	\$356,290	\$356,611
Other Operating Expenses	<u>\$972,245</u>	<u>\$239,800</u>
Total	\$8,130,392	\$7,918,628

Financial Numbers depicted herein are based on actual expenditures and do not include audit adjustments such as depreciation and inventory.

For actual audited financial records, see the Comprehensive Annual Financial Audit for the City of Evanston



Employee Profile and Safety

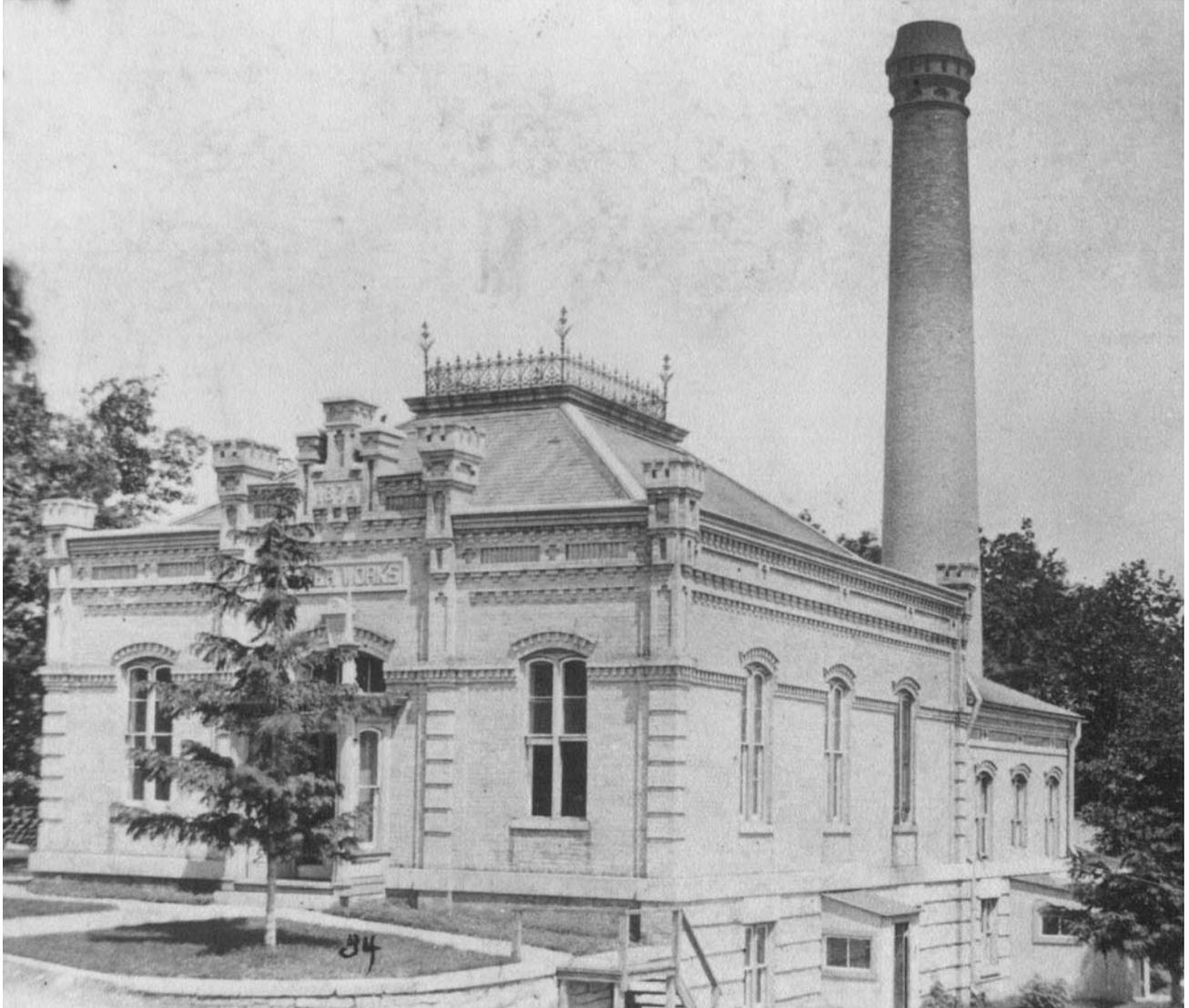
General Statistics

Section	Number of Employees
Administration	4
Pumping	11
Filtration	14
Distribution	11
Sewer	14
Meter	3
Apprentices	1
Total	58

Section	Number of AFMD Start 3/1/2010	Number of Injuries	Highest Consecutive AFMD	Number of AFMD Finish 2/28/2011
Pumping	1,361	1	3,369 - 12/26/2010	477
Filtration	3,191	0	6,289 - 2/28/2011	6,289
Distribution	349	1	1,580 - 10/26/2010	494
Sewer	1,354	1	1,735 - 5/31/2010	928

*AFMD = Accident Free Man Days

Pumping Section



The original Water Works was built in 1874 to provide water for Evanston's 3,500 residents. The system consisted of a 16 inch intake pipe extending 1200 feet into the lake, a small Holly steam engine capable of pumping 2 million gallons per day, a hand fired boiler, and a few miles of cast iron water main. The original cost of the steam engine and boiler was \$24,000. During the first year of operation the plant pumped 95 million gallons of water.

2010/11 MONTHLY PUMPAGE (Million Gallons)

Pumping

Month	Lake Water Pumpage	Wash Water Recycled	Total Raw Water Pumpage	Finished Water Pumpage	Plant Use	Pumpage Tc			
						Distribution	Evanston	Skokie	N.W.C.
Mar-10	1,081.713	8.678	1,090.391	1,084.881	3.841	1,081.040	201.292	224.264	655.484
Apr-10	1,106.207	10.772	1,116.979	1,104.033	5.317	1,098.716	207.652	219.552	671.512
May-10	1,248.836	11.992	1,260.828	1,241.213	6.722	1,234.491	226.394	250.323	757.774
Jun-10	1,194.983	17.525	1,212.508	1,193.295	5.529	1,187.766	227.217	251.019	709.530
Jul-10	1,509.208	31.517	1,540.725	1,522.296	6.672	1,515.624	269.031	306.596	933.401
Aug-10	1,386.202	29.274	1,415.476	1,419.978	6.434	1,413.544	253.851	318.404	841.289
Sep-10	1,195.132	22.507	1,217.639	1,214.646	6.207	1,208.439	227.729	276.801	703.909
Oct-10	1,175.669	21.071	1,196.740	1,193.536	6.064	1,187.472	213.083	276.703	697.686
Nov-10	1,031.851	17.589	1,049.440	1,055.182	3.983	1,051.199	213.248	235.313	602.638
Dec-10	1,080.012	16.970	1,096.982	1,107.701	4.814	1,102.887	187.350	258.931	656.606
Jan-11	1,103.295	16.114	1,119.409	1,130.756	4.761	1,125.995	202.417	264.675	658.903
Feb-11	974.741	14.242	988.983	1,000.740	5.737	995.003	199.628	211.973	583.402
Annual Total	14,087.849	218.251	14,306.100	14,268.257	66.081	14,202.176	2,628.892	3,094.554	8,472.134

2010/11 AVERAGE DAILY PUMPAGE REPORT (MGD)*

Pumping

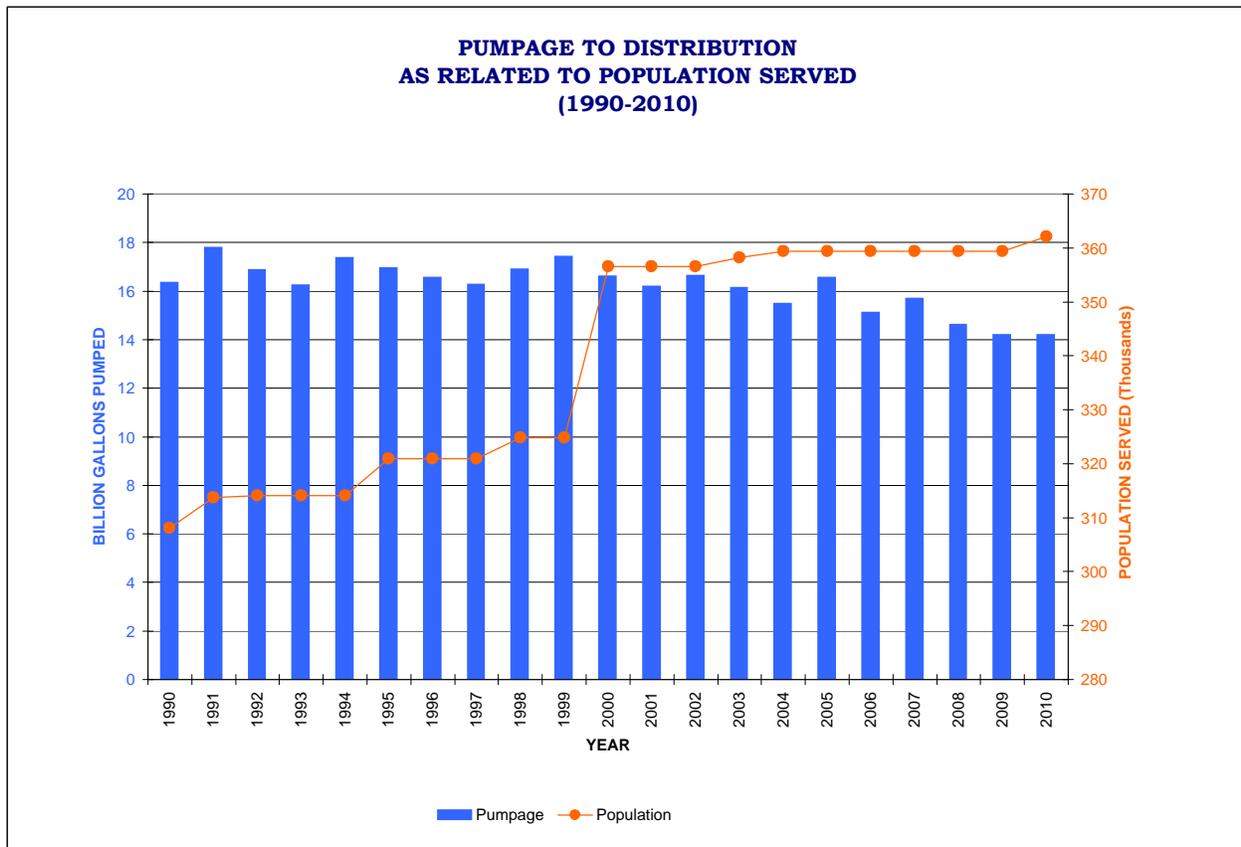
Month	Lake Water Pumpage	Wash Water Recycled	Total Raw Water Pumpage	Finished Water Pumpage	Plant Use	Pumpage Tc			
						Distribution	Evanston	Skokie	N.W.C.
Mar-10	34.894	0.280	35.174	34.996	0.124	34.872	6.493	7.234	21.145
Apr-10	36.874	0.359	37.233	36.801	0.177	36.624	6.922	7.318	22.384
May-10	40.285	0.387	40.672	40.039	0.217	39.822	7.303	8.075	24.444
Jun-10	39.833	0.584	40.417	39.777	0.184	39.592	7.574	8.367	23.651
Jul-10	48.684	1.017	49.701	49.106	0.215	48.891	8.678	9.890	30.110
Aug-10	44.716	0.944	45.661	45.806	0.208	45.598	8.189	10.271	27.138
Sep-10	39.838	0.750	40.588	40.488	0.207	40.281	7.591	9.227	23.464
Oct-10	37.925	0.680	38.605	38.501	0.196	38.306	6.874	8.926	22.506
Nov-10	34.395	0.586	34.981	35.173	0.133	35.040	7.108	7.844	20.088
Dec-10	34.839	0.547	35.387	35.732	0.155	35.577	6.044	8.353	21.181
Jan-11	35.590	0.520	36.110	36.476	0.154	36.322	6.530	8.538	21.255
Feb-11	34.812	0.509	35.321	35.741	0.205	35.536	7.130	7.570	20.836
ANNUAL AVERAG	38.597	0.598	39.195	39.091	0.181	38.910	7.202	8.478	23.211

2010/11 YEARLY PUMPAGE REPORT (Million Gallons)

Pumping

Year	Lake Water Pumpage	Wash Water Recycled	Total Raw Water Pumpage	Finished Water Pumpage	Plant Use	Pumpage To			
						Distribution	Evanston	Skokie	N.W.C.
2010	14,087.849	218.251	14,306.100	14,268.257	66.081	14,202.176	2,628.892	3,094.554	8,472.134
2009	14,363.047	193.841	14,556.888	14,350.335	150.804	14,199.531	2,990.094	2,829.824	8,379.613
2008	14,872.552	134.595	15,007.147	14,693.877	67.581	14,626.296	3,089.536	2,961.341	8,589.720
2007	15,905.381	192.088	16,097.469	15,771.451	66.705	15,704.746	3,140.717	3,564.781	8,999.248
2006	15,332.651	160.528	15,493.179	15,174.631	58.810	15,115.821	2,891.989	3,329.305	8,894.627
2005	16,823.362	184.937	17,008.299	16,634.025	61.313	16,572.712	3,303.763	3,544.779	9,724.170
2004	15,760.615	126.348	15,886.963	15,550.728	56.788	15,493.940	3,200.427	3,365.418	8,928.095
2003	16,387.185	152.037	16,539.222	16,204.109	51.259	16,152.850	3,448.090	3,624.902	9,079.858
2002	16,868.610	162.518	17,031.128	16,685.830	46.900	16,638.930	3,428.938	3,761.222	9,448.570
2001	16,490.952	156.279	16,647.231	16,252.079	45.342	16,206.737	3,443.723	3,643.839	9,119.175
2000	16,907.373	131.332	17,038.705	16,675.416	47.524	16,627.892	3,441.921	3,793.561	9,392.410

* Figures based on fiscal year - March 1 - February 28.



Average Daily Per Capita Consumption

<u>Year</u>	Evanston		Skokie		Northwest Water Commission	
	<u>Population</u>	<u>Gal. Per Capita Use</u>	<u>Population</u>	<u>Gal. Per Capita Use</u>	<u>Population</u>	<u>Gal. Per Capita Use</u>
	2003	73,421	128	63,126	157	221,643
2004	74,360	118	63,633	145	221,364	111
2005	74,360	122	63,633	153	221,364	120
2006	74,360	106	63,633	143	221,364	110
2007	74,360	115	63,333	153	221,364	111
2008	74,360	114	63,333	128	221,364	106
2009	74,360	110	63,333	122	221,364	104
2010	74,486	97	64,784	131	222,802	104

COMBINED TOTAL

<u>Year</u>	<u>Population</u>	<u>Gal. Per Capita Use</u>
2003	358,190	123
2004	359,357	123
2005	359,357	126
2006	359,357	115
2007	359,357	119
2008	359,357	112
2009	359,357	108
2010	362,072	107

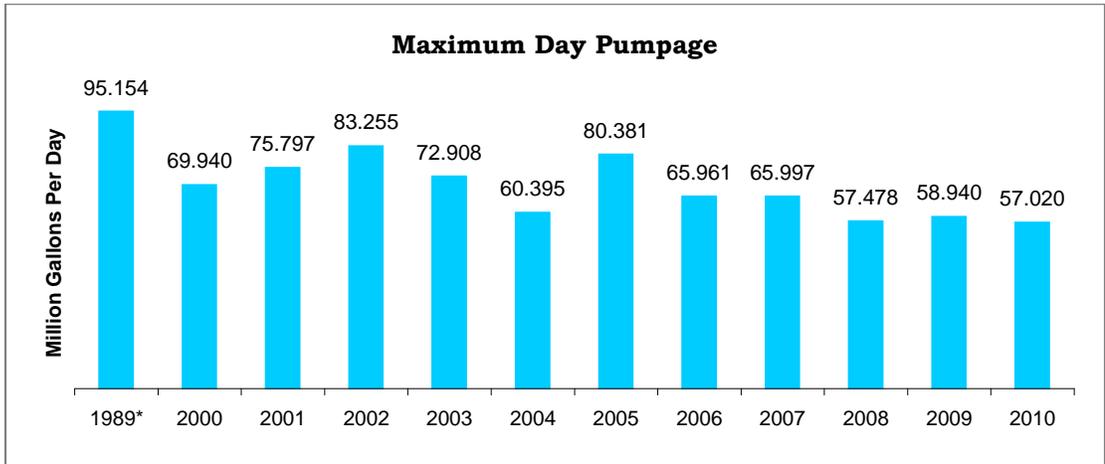
MAXIMUM PUMPAGE TO DISTRIBUTION

<u>Year</u>	<u>Max. Day (MGD)</u>	<u>Max. Hour (MGD)</u>	<u>Equivalent Daily Rate (MGD)</u>
2000	69.940	3.300	79.200
2001	75.797	3.725	89.400
2002	83.255	3.696	88.704
2003	72.908	3.370	80.880
2004	60.395	2.886	69.264
2005	80.381	3.702	88.848
2006	65.961	2.927	70.248
2007	65.997	2.943	70.632
2008	57.478	2.895	69.480
2009	58.940	2.654	63.696
2010	57.020	2.659	63.816

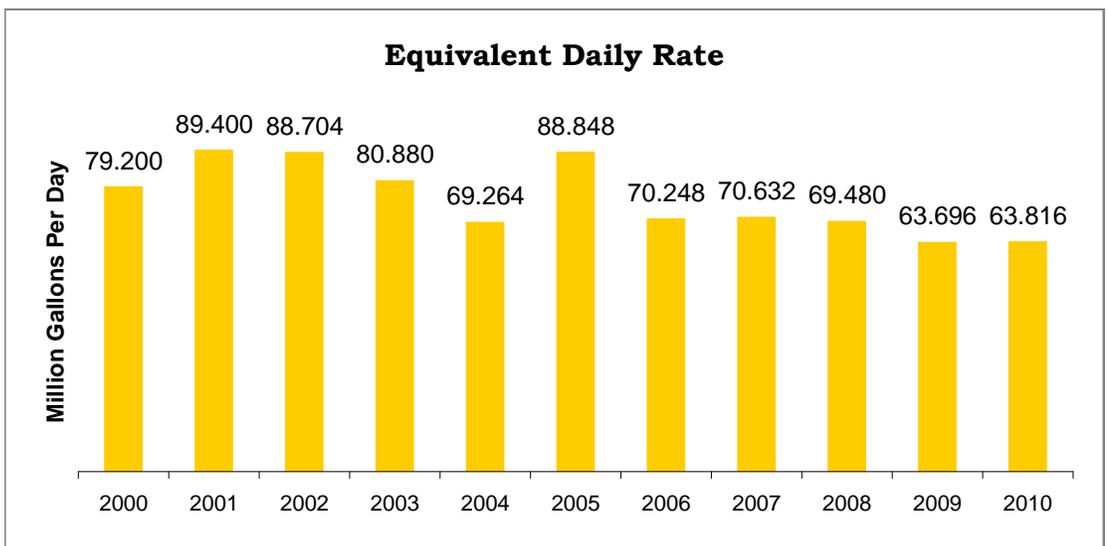
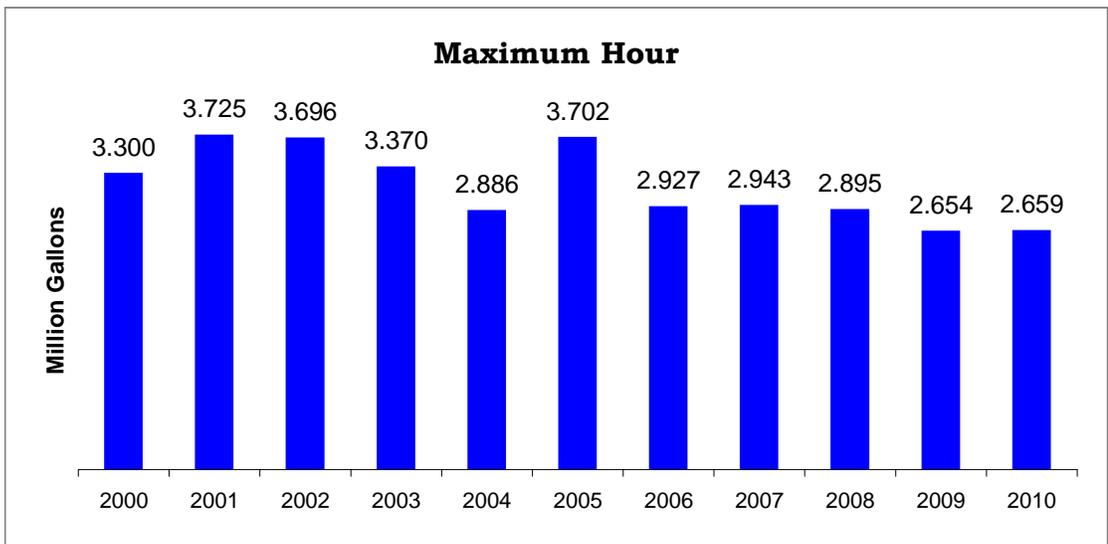
Historical Maximum Day Pumpage: July 7, 1989 @ 95.154 MG

MAXIMUM PUMPAGE TO DISTRIBUTION

Pumping



*Historical Maximum Day Pumpage: July 7, 1989 @ 95.154 MG



MAXIMUM PUMPAGE AND DEMAND DAYS IN MGD

Pumping

Calendar Year	Evanston Water Plant		City of Evanston		Village of Skokie		Northwest Water Comm.	
	Max Pumpage to Distribution	Max Day Demand	Max Day Pumpage	Max Day Demand	Max Day Pumpage	Max Day Demand	Max Day Pumpage	Max Day Demand
2010	July 17th 57.020	July 17th 57.249	July 29th 13.643	July 29th 13.643	August 20th 12.957	August 20th 12.960	July 19th 34.661	July 19th 34.760
2009	August 14th 58.940	August 14th 58.668	August 13th 13.992	August 14th 13.588	August 14th 11.495	July 30th 11.327	August 6th 34.725	August 6th 35.225
2008	July 30th 57.478	July 30th 56.649	July 30th 11.788	July 30th 11.667	July 30th 11.495	July 30th 11.327	July 29th 33.670	July 29th 33.178
2007	August 2nd 65.997	August 2nd 65.034	August 2nd 17.774	August 2nd 15.612	June 11th 16.493	June 11th 16.723	August 2nd 35.946	August 2nd 37.136
2006	August 1st 65.961	August 1st 66.486	July 29th 14.127	August 1st 13.115	August 1st 15.236	August 1st 15.236	August 1st 37.221	August 1st 38.221
2005	June 24th 80.381	June 24th 80.457	July 17th 16.926	July 17th 18.176	June 24th 17.268	June 24th 17.075	June 24th 47.233	June 25th 50.309
2004	August 2nd 60.395	August 2nd 60.981	August 3rd 14.497	August 2nd 14.801	July 2nd 11.895	July 2nd 11.297	July 30th 35.471	August 2nd 36.15
2003	July 2nd 72.908	July 2nd 73.165	July 2nd 16.650	July 2nd 16.368	July 2nd 16.269	July 2nd 16.814	July 3rd 40.619	July 2nd 41.557
2002	July 3rd 83.255	July 3rd 75.499	July 2nd 17.136	July 2nd 16.602	July 3rd 16.741	July 3rd 16.887	July 3rd 49.709	July 3rd 47.559
2001	July 16th 75.797	July 16th 75.499	July 21st 15.079	July 21st 14.492	July 16th 16.204	July 16th 16.493	July 16th 45.966	July 16th 45.946
2000	August 15th 69.94	August 15th 69.121	July 28th 14.319	July 28th 13.917	Sept. 1st 16.575	Sept. 1st 16.954	August 15th 39.274	August 15th 37.364
1999	July 30th 80.375	July 30th 80.744	July 30th 18.328	July 30th 18.525	July 30th 18.598	July 30th 22.776	July 31st 43.991	July 31st 46.791
1998	June 25th 74.026	June 25th 73.401	June 25th 15.769	June 25th 15.696	June 25th 16.951	June 25th 16.399	July 28th 43.169	July 28th 41.669
1997	July 16th 82.683	July 16th 81.627	July 16th 17.663	July 16th 17.056	July 16th 19.361	July 16th 18.912	July 12th 48.804	July 16th 44.171
1996	July 8th 76.446	July 8th 76.63	July 24th 15.266	September 4th 14.755	July 6th 17.043	July 8th 16.954	July 14th 46.357	July 8th 45.123
1995	July 14th 81.49	July 14th 81.113	July 14th 18.066	July 14th 17.976	July 14th 21.461	July 14th 21.174	June 20th 43.583	June 24th 43.952
1994	June 18th 82.79	June 18th 81.952	June 6th 19.101	June 6th 19.335	June 18th 20.216	June 18th 19.93	June 17th 45.257	June 16th 46.941

ENERGY COSTS

Pumping

Electric Power - Kilowatt Hours (KWH) Used

Year	Total KWH	For High Lift Pumping	For Low Lift Pumping	For Other Plant Use (Motors & Lights)	Total Cost	Average Cost \$/KWH
2010	12,009,162	7,560,661	2,254,243	2,194,258	\$821,166	\$0.068378
2009	11,290,087	7,261,345	2,230,893	1,798,049	\$829,181	\$0.073443
2008	13,721,463	7,947,533	2,997,940	2,775,990	\$934,832	\$0.068129
2007	12,390,377	8,196,766	2,513,469	1,683,051	\$955,552	\$0.077120
2006	11,737,729	7,789,013	2,325,846	1,622,870	\$797,307	\$0.067927
2005	13,047,056	8,556,536	2,773,774	1,716,746	\$851,054	\$0.065230

Natural Gas Used for Pumping and Emergency Generator

Year	Therms	Total Cost	Average Cost/Therm
2010	51,552	\$32,237	\$0.63
2009*	37,203	\$28,274	\$0.76
2008	41,795	\$87,324	\$2.09
2007	43,324	\$50,284	\$1.16
2006	27,938	\$33,381	\$1.19
2005	28,646	\$37,877	\$1.32

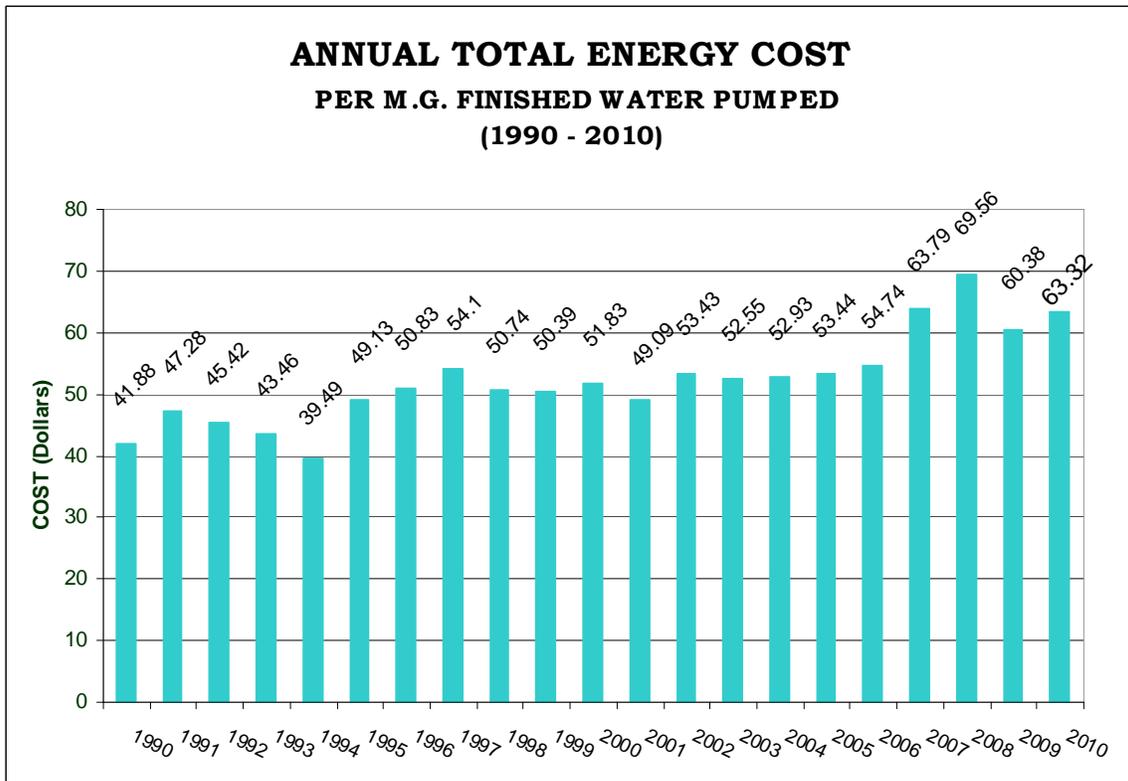
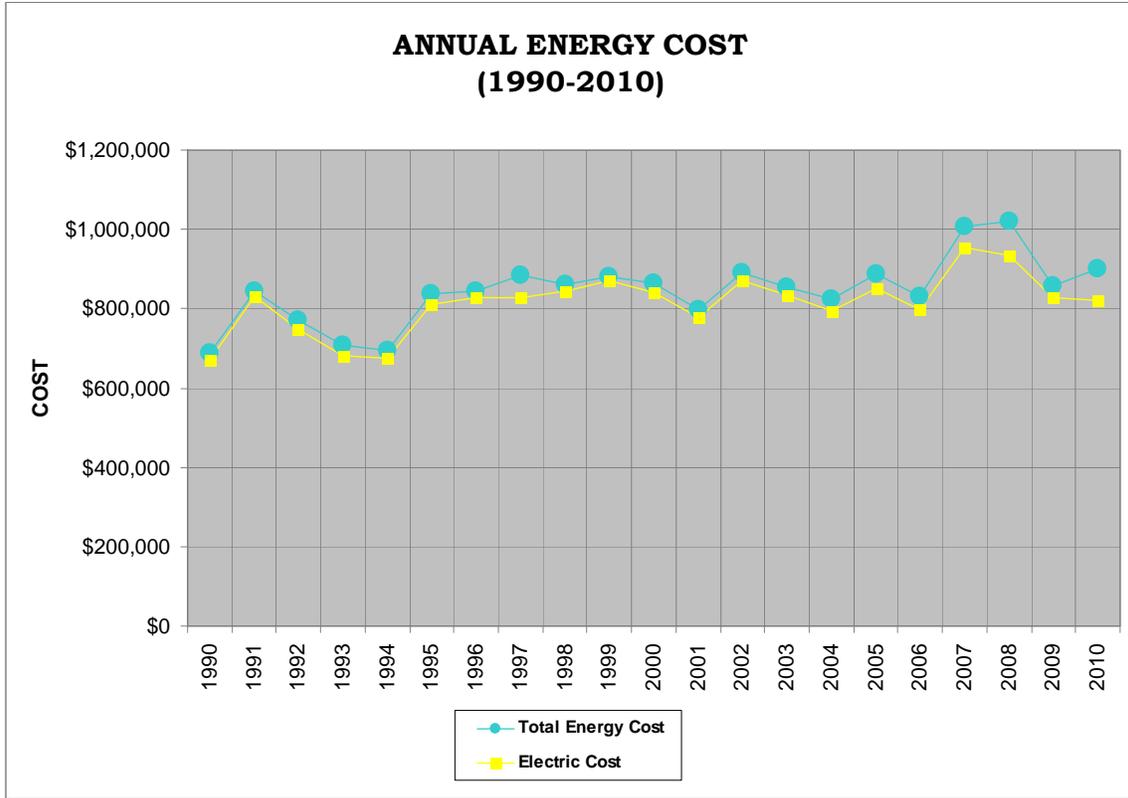
*The 2009 calculation includes both wholesale gas purchase and distribution costs, making the average cost seem anomalous when this is not the case.

Total Energy Cost (Electric & Gas)

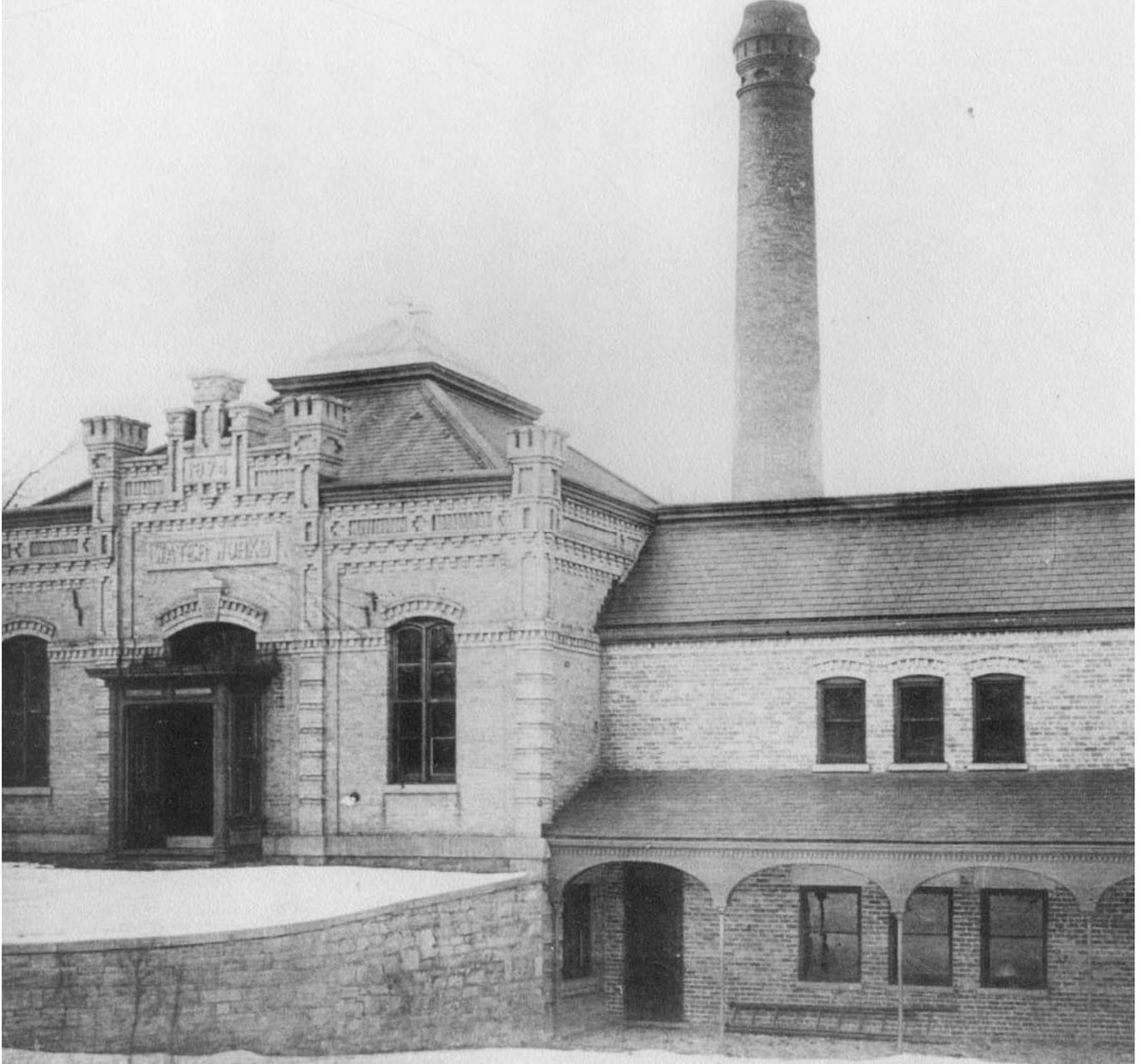
Year	High Lift	Low Lift	Plant Use	Total
2010	\$547,791	\$201,441	\$150,038	\$899,264
2009	\$551,481	\$169,433	\$136,541	\$857,455
2008	\$592,037	\$223,326	\$206,792	\$1,022,156
2007	\$665,404	\$204,040	\$136,628	\$1,006,072
2006	\$551,234	\$164,602	\$114,852	\$830,688
2005	\$582,980	\$188,985	\$116,967	\$888,931

Total Energy Cost Per Million Gallons of Finished Water Pumped

2010	\$63.32
2009	\$60.38
2008	\$69.56
2007	\$63.79
2006	\$54.74
2005	\$53.44

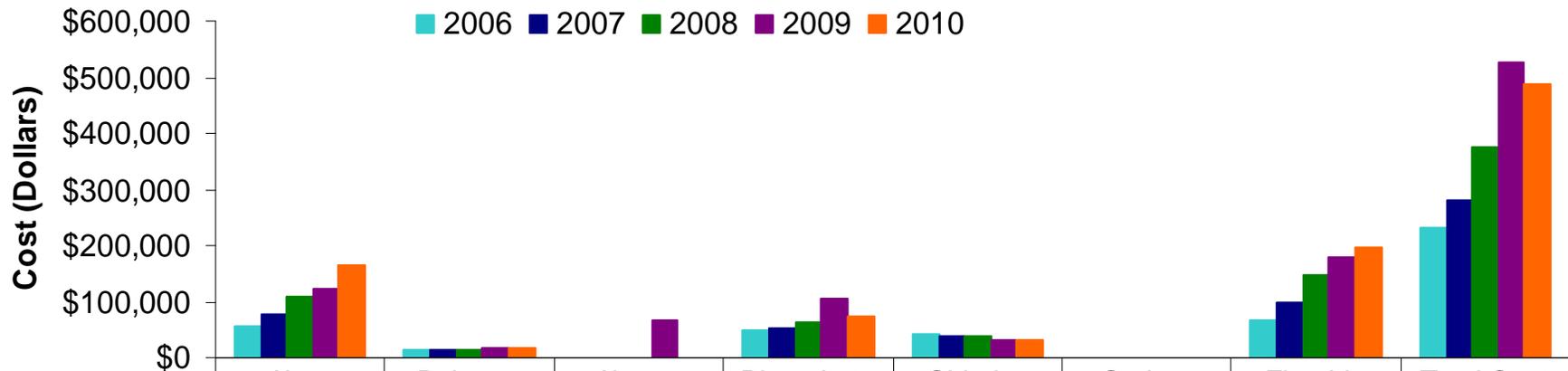


Filtration Section



The original plant received an addition in 1888, allowing the installation of a second Holly engine. This was originally intended to replace the first engine, but growing demand kept both engines running. In 1892 the village of South Evanston was annexed, becoming a water user.

ANNUAL CHEMICAL COST (2006-2010)



	Alum	Polymer	Alumer	Phosphate	Chlorine	Carbon	Fluoride	Total Cost
2006	\$56,986	\$15,652	\$0	\$49,339	\$41,984	\$0	\$67,801	\$231,762
2007	\$77,884	\$14,915	\$0	\$51,095	\$40,201	\$0	\$96,939	\$281,034
2008	\$109,186	\$15,449	\$0	\$63,691	\$38,423	\$0	\$148,098	\$374,847
2009	\$124,161	\$17,424	\$66,116	\$105,650	\$31,767	\$0	\$180,628	\$525,746
2010	\$166,179	\$17,616	\$0	\$74,321	\$32,363	\$0	\$196,597	\$487,076

CHEMICAL TREATMENT

Filtration

	Cost Per Unit	Pounds Per Year	Avg. Daily	Max. Day	Min. Day	Total Cost	Cost Per M.G. Treated
Aluminum Sulfate							
2010	\$400.10 / dry ton	830,688	59.0	103.8	39.3	\$166,179.13	\$11.62
2009	\$440.00 / dry ton	607,724	53.6	100.5	31.7	\$124,160.72	\$12.09
2008	\$261.28 / dry ton	835,780	56.3	92.4	39.2	\$109,186.30	\$7.27
2007	\$187.91 / dry ton	828,948	52.0	90.0	16.1	\$77,883.81	\$4.84
2006	\$137.91 / dry ton	826,427	53.8	95.2	38.1	\$56,986.27	\$3.68
Alumer*							
2009	\$420.00/ dry ton	* 146,180	35.5	76.5	24.3	\$66,116.40	\$15.93
2004	\$122.00/ dry ton	476,768	30.1	55.6	18.1	\$66,581.61	\$4.19
Chlorine							
2010	\$367.50 / ton	176,125	12.3	16.2	8.8	\$32,362.97	\$2.26
2009	\$367.00 / ton	172,880	11.9	17.6	7.3	\$31,766.70	\$2.20
2008	\$420.00 / ton	182,965	13.8	16.5	8.2	\$38,422.65	\$2.56
2007	\$423.50 / ton	189,850	11.6	16.8	8.5	\$40,200.74	\$2.50
2006	\$423.50 / ton	198,270	12.7	19.6	13.8	\$41,983.67	\$2.71
Activated Carbon**							
2010	0	0	0	0	0	\$ -	\$ -
2009	0	0	0	0	0	\$ -	\$ -
2008	0	0	0	0	0	\$ -	\$ -
2007	0	0	0	0	0	\$ -	\$ -
2006	0	0	0	0	0	\$ -	\$ -
Hydrofluosilic Acid (Fluoride)							
2010	\$685.00 / ton	574,004	40.1	42.8	37.8	\$196,596.97	\$13.75
2009	\$635.00 / ton	568,907	39.4	43.0	23.1	\$180,627.97	\$12.51
2008	\$507.00 / ton	584,214	38.9	64.7	27.6	\$148,098.25	\$9.86
2007	\$300.00 / ton	646,259	40.2	45.7	31.4	\$96,938.85	\$6.02
2006	\$212.00 / ton	639,635	41.3	44.5	38.6	\$67,801.31	\$4.38
Polymer							
2010	\$700.00 / ton	50,316	3.6	6.2	2.3	\$17,610.60	\$1.23
2009	\$660.00 / ton	52,801	3.7	6.2	2.0	\$17,424.33	\$1.21
2008	\$612.00 / ton	50,488	3.4	5.7	2.2	\$15,449.33	\$1.03
2007	\$596.00 / ton	50,049	3.1	5.4	2.2	\$14,914.60	\$0.93
2006	\$596.00 / ton	52,524	3.4	6.3	2.4	\$15,652.15	\$1.01
Post Treatment Phosphate							
2010	\$4.83 / gallon	176,954	12.5	18.4	10.7	\$74,320.86	\$5.20
2009	\$6.71 / gallon	181,070	12.7	14.9	10.9	\$105,650.41	\$7.32
2008	\$3.58 / gallon	204,336	13.9	14.8	12.4	\$63,691.11	\$4.24
2007	\$2.70 / gallon	217,626	13.8	15.0	12.2	\$51,094.80	\$3.17
2006	\$2.70 / gallon	210,148	13.8	16.0	11.1	\$49,339.10	\$3.19

*Alumer is a combination of Aluminum Sulfate and Polymer - tested during 2004.

*Alumer was used from 5/27/2009 to 8/29/2009. No polymer was used during this time.

**Carbon is fed for control of taste and odor. In the last six years we have not experienced problems with taste and odor, therefore we have not had to feed carbon.

FILTER OPERATIONS

Filtration

Filter Run	Average Hours / Run / Filter		Total Hours / Year	
	3 MGD	6 MGD	3 MGD	6 MGD
	Year			
2010	229.2	198.8	96,286	100,046
2009	253.8	239.2	97,313	94,790
2008	266.7	228.5	97,050	100,601
2007	234.9	200.7	91,395	104,530
2006	245.4	226.9	105,043	105,059
2005	224.7	201.7	104,595	105,031
2004	266.7	249.5	105,965	105,110
2003	231.4	191.4	104,419	105,419
2002	232.7	183.0	104,344	105,088
2001	231.2	169.2	104,270	94,246

Filter Washes	Total / Year		Maximum Number in One Day	
	3 MGD	6 MGD	3 MGD	6 MGD
	Year			
2010	452	559	7	7
2009	387	409	6	5
2008	369	460	6	6
2007	425	569	6	7
2006	453	503	5	6
2005	522	614	6	8
2004	404	419	6	7
2003	687	620	7	8
2002	501	697	7	8
2001	468	594	7	8

Wash Water	Total		
	M.G. Used	Avg. Daily %	Max. Daily
2010	223.704	1.53	15.2
2009	149.063	1.02	4.54
2008	145.593	0.95	4.15
2007	192.135	1.15	4.86
2006	160.264	1.01	3.25
2005	184.088	1.03	3.45
2004	127.261	0.79	4.22
2003	151.751	0.88	2.93
2002	161.887	0.90	2.98
2001	158.120	0.92	4.83

BACTERIOLOGICAL WATER ANALYSIS

(Membrane Filter Method)

Report of Water Quality Control Laboratory

The E.P.A. Standard is based on the presence or absence of coliform in a water sample. The E.P.A. requires that no more than 5.0% of the required monthly samples from the distribution system may be found positive for the presence of coliform. Evanston is required to collect 80 samples per month.

Distribution System		Positive for	Positive for
Year	Number Sampled	Total Coliform	Fecal Coliform
2010	994	4	1
2009	965	2	0
2008	992	2	0

Additional Bacteriological Samples Analyzed for the Village of Skokie

Year	Number Sampled
2010	941
2009	918
2008	927

Raw Water		<i>Colony Count</i>	
Year	Number Sampled	Average	Maximum
2010	730 (Twice Daily)	96	>200
2009	730 (Twice Daily)	59	>200
2008	730 (Twice Daily)	46	>200
2007	732 (Twice Daily)	44	>200
2006	730 (Twice Daily)	38	>200

After Primary Treatment		<i>Colony Count</i>	
Year	Number Sampled	Average	Maximum
2010	730 (Twice Daily)	0	0
2009	730 (Twice Daily)	0	0
2008	732 (Twice Daily)	0	0
2007	732 (Twice Daily)	0	0
2006	730 (Twice Daily)	0	0

Plant Tap A.M. and P.M. Samples		<i>Colony Count</i>	
Year	Number Sampled	Average	Maximum
2010	1460 (4 times Daily)	0	0
2009	1460 (4 times Daily)	0	0
2008	1460 (4 times Daily)	0	0
2007	1464 (4 times Daily)	0	0
2006	1458 (4 times Daily)	0	0

Taste & Odor, Turbidity, Temperature and Fluoride

Report of Water Quality Control Laboratory

Taste & Odor

Year	Number of Tests
2010	2190
2009	2190
2008	2190
2007	2196
2006	2190

Turbidity (Expressed in Nephelometric Turbidity Units (NTUs))

E.P.A. Standard <0.3 NTUs in 95% of Samples and Never >1 NTU in any single sample of finished water.

Year	Raw Water			After Primary Treatment			Plant Tap		
	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.
2010	13.5	127.0	0.51	0.79	2.6	0.27	0.09	0.23	0.06
2009	10.07	100.0	0.42	0.72	1.81	0.27	0.08	0.14	0.05
2008	8.27	65.40	0.41	0.68	1.62	0.21	0.08	0.14	0.06
2007	6.90	100.0	0.53	0.8	2.71	0.25	0.10	0.46	0.06
2006	6.99	76.30	0.25	0.88	2.71	0.26	0.10	0.31	0.06

Temperature

Year	Average	Maximum	Minimum
2010	10.6°C/51.2°F	22.0°C/71.6°F	0.8°C/33.4°F
2009	10.3°C/50.5°F	22.3°C/72.1°F	0.8°C/33.4°F
2008	11.2°C/52.2°F	24.1°C/75.4°F	1.0°C/33.8°F
2007	10.8°C/51.5°F	25.0°C/77.0°F	1.0°C/33.8°F
2006	11.4°C/52.5°F	26.0°C/78.8°F	1.0°C/33.8°F

Fluoride Content (mg/l or parts per million)

E.P.A. Standard 0.9 to 1.2 mg/l

Year	Plant Tap			Distribution		
	Avg.	Max.	Min.	Avg.	Max.	Min.
2010	0.99	1.11	0.90	1.00	1.11	0.90
2009	0.98	1.11	0.90	0.98	1.09	0.90
2008	1.01	1.20	0.90	1.03	1.19	0.92
2007	1.02	1.14	0.92	1.03	1.14	0.91
2006	0.96	1.08	0.90	0.98	1.11	0.90

CHLORINE RESIDUAL (in ppm)

Report of Water Quality Control Laboratory

Filter Influent

Year	Free Residual			Total Residual		
	Avg.	Max.	Min.	Avg.	Max.	Min.
2010	0.63	0.94	0.26	0.78	1.11	0.36
2009	0.59	0.89	0.28	0.76	1.13	0.46
2008	0.65	0.90	0.41	0.82	1.12	0.36
2007	0.70	1.03	0.48	1.13	1.23	0.62
2006	0.80	1.09	0.48	0.97	1.31	0.67

Filter Effluent

Year	Free Residual			Total Residual		
	Avg.	Max.	Min.	Avg.	Max.	Min.
2010	0.55	0.85	0.23	0.70	0.96	0.48
2009	0.50	0.86	0.22	0.66	1.06	0.39
2008	0.54	0.76	0.27	0.70	0.92	0.43
2007	0.62	0.91	0.41	0.79	1.09	0.55
2006	0.70	1.12	0.40	0.86	1.33	0.50

Plant Tap

Year	Free Residual			Total Residual		
	Avg.	Max.	Min.	Avg.	Max.	Min.
2010	0.66	0.83	0.48	0.82	1.05	0.62
2009	0.65	0.89	0.48	0.82	1.11	0.56
2008	0.68	0.91	0.51	0.84	1.08	0.64
2007	0.66	0.92	0.33	0.83	1.08	0.56
2006	0.72	1.19	0.53	0.86	1.37	0.67

Distribution Tap

Year	Free Residual			Total Residual		
	Avg.	Max.	Min.	Avg.	Max.	Min.
2010	0.41	0.82	0.07	0.58	0.98	0.2
2009	0.42	0.71	0.1	0.59	0.87	0.23
2008	0.44	0.65	0.02	0.61	0.88	0.11
2007	0.45	0.91	0.12	0.63	1.05	0.26
2006	0.49	0.82	0.09	0.67	1.02	0.20

pH, ALKALINITY AND HARDNESS

Report of Water Quality Control Laboratory

pH (Hydrogen Ion Concentration)

Recommended E.P.A. Standard 6.5 - 8.5 average / year

Year	Number of Tests	Raw Water			Plant Tap		
		Avg.	Max.	Min.	Avg.	Max.	Min.
2010	730	8.30	8.60	7.90	7.60	7.80	7.30
2009	729	8.29	8.60	7.60	7.62	7.80	7.10
2008	730	8.20	8.50	7.70	7.60	7.80	7.10
2007	732	8.30	8.70	7.90	7.60	7.80	7.40
2006	730	8.30	8.60	8.00	7.60	7.70	7.30

Alkalinity (parts per million)

Year	Number of Tests	Raw Water			Plant Tap		
		Avg.	Max.	Min.	Avg.	Max.	Min.
2010	730	103	115	85	97	111	84
2009	730	104	118	91	97	119	80
2008	730	106	134	11	98	130	86
2007	732	108	121	90	100	114	84
2006	730	109	141	98	101	138	90

Hardness (parts per million as CaCO₃)

Year	Number of Tests	Raw Water			Finished Water		
		Avg.	Max.	Min.	Avg.	Max.	Min.
2010	730	133	151	122	132	151	120
2009	730	132	152	100	130	150	94
2008	730	132	144	123	131	150	120
2007	732	133	148	104	132	155	120
2006	730	134	150	106	132	152	102

EVANSTON 2010 WATER QUALITY DATA

Report of Water Quality Control Laboratory

Detected Substances

Substance	MCLG	Highest Allowed (MCL)	Evanston Result	Evanston Minimum	Evanston Maximum	Source of Contamination
Turbidity (NTU)	NA	TT=Monitored by % Exceeding 0.3 NTU and max allowed is 1 NTU	100% of samples meet 0.3 NTU	0.06	0.23	Soil runoff
Fluoride (ppm)	4	4	1.1	0.90	1.10	Added to promote strong teeth.
Sodium (ppm)	NA	NA	7.1	7.1	7.1	Runoff and natural erosion
Lead (ppb)	0	Action Level = 15	<5	<5	9.4	Corrosion of household plumbing
Copper (ppm)	1.3	Action Level = 1.3	0.1	<0.1	0.36	Corrosion of household plumbing
Total Coliform Bacteria	0	5% of Monthly Samples are Positive	1.2	NA		Naturally present in the environment

Disinfection By-Products

Substance	MCLG	Highest Allowed (MCL)	Evanston Result	Evanston Minimum	Evanston Maximum	Source of Contamination
Total Trihalomethanes (ppb)	NA	80	28	15.1	38.0	By-product of drinking water chlorination
Total Haloacetic Acids (ppb)	NA	60	10.0	6.8	11.0	By-product of drinking water chlorination
Chlorine	4 MRLDG	4 MRDL	0.4	0.37	0.48	Water additive used to control microbes

2010 WATER QUALITY DATA - EVANSTON, ILLINOIS

Non- Detected Contaminants

	MCLG	MCL	UL MRL	Level Found
Radionuclides				
(sampled every 6 years) next test 2014 last sampled 2008				
COMBINED RADIUM - 226,228 (pCi/L)	0	5		nd
Inorganic Contaminants				
ARSENIC (ppb)	0	10	2	nd
BARIUM (ppb)	2	2	2000	nd
CADMIUM (ppb)	5	5	5	nd
CHROMIUM (ppb)	100	100	100	nd
CYANIDE (ppb)	200	200	0.2	nd
IRON (ppb)	n/a	1000	0.3	nd
MANGANESE (ppb)	n/a	150	50	nd
MERCURY (INORGANIC) (ppb)	2	2	2	nd
NICKEL	n/a	100	100	nd
SELENIUM (ppb)	50	50	50	nd
SULFATE			250	nd
ANTIMONY (ppb)	6	6	6	nd
BERYLLIUM (ppb)	4	4	4	nd
THALLIUM (ppb)	0.5	2	2	nd
ZINC (ppb)	n/a	5000	5000	nd
<hr/>				
NITRATE AS N(NO3)	10	10	5	nd
NITRITE (AS NITROGEN) (ppm)	1	1	0.5	nd
Synthetic Organic Contaminants				
<hr/>				
ENDRIN (ppb)	2	2	0.1	nd
BHC- GAMMA (LINDANE)	200	200	0.1	nd
METHOXYCHLOR (ppb)	40	40	0.1	nd
TOXAPHENE (ppb)	0	3	1	nd
DIQUAT (ppb)	20	20	2	nd
DALAPON (ppb)	200	200	5	nd
ENDOTHALL (ppb)	100	100	9	nd
DI(2-ETHYLHEXYL)ADIPATE (ppb)	400	400	0.6	nd
OXAMYL (VYDATE) (ppb)	200	200	2	nd
SIMAZINE (ppb)	4	4	0.35	nd
DI(2-ETHYLHEXYL)PHTHALATE (ppb)	0	6	0.6	nd
PICHLORAM (ppb)	500	500	1	nd
DINOSEB (ppb)	7	7	1	nd
HEXACHLOROCYCLOPENTADIENE (ppb)	50	50	0.5	nd
ALDICARB SULFOXIDE	n/a	n/a	1	nd
ALDICARB SULFONE	n/a	n/a	1	nd
CARBOFURAN (ppb)	40	40	0.9	nd
ALDICARB	n/a	n/a	1	nd
ATRAZINE (ppb)	3	3	0.3	nd
ALACHLOR (LASSO)(ppb)	0	2	0.2	nd
HEPTACHLOR	0	100	0.04	nd
HEPTACHLOR EPOXIDE (ppt)	0	100	0.02	nd

2010 WATER QUALITY DATA - EVANSTON, ILLINOIS

Non- Detected Contaminants

	MCLG	MCL	UL MRL	Level Found
DIELDRIN	n/a	1	0.05	nd
2,4-Dichloro-Phenoxyacetic Acid (2,4-D) (ppb)	10	10	1	nd
2,4,5-TP (SILVEX) (ppb)	50	50	1	nd
HEXACHLOROBENZENE (ppb)	0	1	0.1	nd
BENZO (A) PYRENE (ppb)	0	200	0.1	nd
PENTACHLOROPHENOL (PCP) (ppb)	0	1	0.4	nd
ALDRIN (ppb)	n/a	1	0.05	nd
POLYCHLORINATED BIPHENYLS (PCB)(ppb)	0	500		nd
DDT TOTAL	n/a	n/a	1	nd
1,2 DIBROMO-3-CHLOROPROPANE (DBCP)(ppb) same as Dibromochloropropane	0	0.2	0.02	nd
ETHYLENE DIBROMIDE (EDB) (ppb)	0	50	0.01	nd
CHLORDANE (ppb)	0	2	0.2	nd

Volatile Organic Contaminants

(sampled every 3 years) next test 2011 last sampled 2008

METHYL TERT-BUTYL ETHER (MTBE) (ppb)	n/a	n/a	0.5	nd
1,2,4-TRICHLOROENZENE (ppb)	70	70	0.5	nd
CIS-1,2-DICHLOROETHYLENE (ppb)	70	70	0.5	nd
XYLENES(ppm)	10	10	0.5	nd
DICHLOROMETHANE (ppb)	0	5	0.5	nd
O-DICHLOROENZENE (ppb)	600	600	0.5	nd
P-DICHLOROENZENE (ppb)	75	75	0.5	nd
1,1-DICHLOROETHYLENE (ppb)	7	7	0.5	nd
TRANS-1,2-DICHLOROETHYLENE (ppb)	100	100	0.5	nd
1,2-DICHLOROETHANE (ppb)	0	5	0.5	nd
1,1,1-TRICHLOROETHANE (ppb)	200	200	0.5	nd
CARBON TETRACHLORIDE (ppb)	0	5	0.5	nd
1,2-DICHLOROPROPANE (ppb)	0	5	0.5	nd
TRICHLOROETHYLENE (ppb)	0	5	0.5	nd
1,1,2-TRICHLOROETHANE (ppb)	3	5	0.5	nd
TETRACHLOROETHYLENE (ppb)	0	5	0.5	nd
MONOCHLOROENZENE (ppb) same as CHLOROENZENE	100	100	0.5	nd
BENZENE (ppb)	0	5	0.5	nd
TOLUENE (ppm)	1	1	0.5	nd
ETHYLBENZENE (ppb)	700	700	0.5	nd
STYRENE(ppb)	100	100	0.5	nd
THM/HAA _s				
MONOCHLORACETIC ACID (ppb)	70	70	2.0	nd
MONOBROMOACETIC ACID (ppb)	na	na	1.0	nd
DIBROMOACETIC ACID (ppb)	na	na	1.0	nd

LT2

Cryptosporidium (oocysts)	0		NA	nd
Giardia (cysts/L)	0		0.089	nd
Escherichia coli (MPN/100ml)			1.0	nd

2010 WATER QUALITY DATA - EVANSTON, ILLINOIS

Non-Detected Contaminants

	MCLG	MCL	UL MRL	Level Found
UCMR2 (ppb)				
Method 529				
1,3- Dinitrobenzene			0.8	nd
RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)			1.0	nd
TNT (2,4,6-Trinitrotoluene)			0.8	nd
Method 521				
N-Nitrosodiethylamine (NDEA)			0.0050	nd
N- Nitrosodimethylamine (NDMA)			0.0020	nd
N-Nitrosodi-N-butylamine (NDBA)			0.0040	nd
N-Nitrosodi-N-propylamine (NDPA)			0.0070	nd
N-Nitrosomethylethylamine (NMEA)			0.0030	nd
N-Nitrosopyrrolidine (NPYR)			0.0020	nd
Method 525.2				
Acetochlor			2.0	nd
Alachlor			2.0	nd
Metolachlor			1.0	nd
Method 535				
Acetochlor ESA			1.0	nd
Acetochlor OA			2.0	nd
Alachlor ESA			1.0	nd
Alachlor OA			2.0	nd
Metolachlor ESA			1.0	nd
Metolachlor OA			2.0	nd
Method 527				
Dimethoate			0.7	nd
2,2',4,4',5,5'-Hexabromobiphenyl (HBB)			0.7	nd
2,2',4,4',5,5'-Hexabromobiphenyl ether (BDE-153)			0.8	nd
2,2',4,4',5-Pentabromodiphenyl ether (BDE-99)			0.9	nd
2,2',4,4',6-Pentabromodiphenyl ether (BDE-100)			0.5	nd
Terbufos-sulfone			0.4	nd
2,2',4,4'-Tetrabromodiphenyl ether (BDE-47)			0.3	nd

MCL= Maximum Contaminant Level

MCLG= Maximum Contaminant Level Goal

UL MRL= Underwriters Laboratories Minimum Reporting Level

Lead and Copper Statement

Report of Water Quality Control Laboratory

To minimize contamination resulting from corrosion, the EPA established a lead action level of 15 parts per billion (ppb) in 1992. The 90th percentile result of samples analyzed for lead and copper content in homes with lead pipes must be less than the action level of 15 ppb and 1.3 ppm respectively. In 2008, Evanston sampled water from thirty homes with lead service lines and analyzed them for lead and copper content. All results were below the action levels. The 90th percentile level for Lead was less than detection limit of 5 ppb. The 90th percentile level for copper was 0.36 ppm as illustrated by the Evanston Result in Water Quality Data table. These samples are collected and analyzed on a three year cycle and this process will be repeated in June/July of 2011. The Evanston Water Utility is proud to have been in compliance with this rule since November of 1992!

Definitions and General Explanations for Use with Water Quality Data

Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other required actions by the water supply.

Disinfection by-products – Total Trihalomethanes and Total Haloacetic Acids are used to regulate the amount of allowable by-products of chlorination.

Fluoride - The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 to 1.2 ppm

Lead and Copper- There is no detectable lead in the water provided to the Evanston community. Lead enters the water from lead solder, lead pipes or plumbing fixtures in the home. To minimize contamination resulting from corrosion, the EPA established a lead action level of 15 parts per billion (ppb) in 1992. The 90th percentile result of samples analyzed for lead and copper content in homes with lead pipes must be less than the action level of 15 ppb and 1.3 ppm respectively. In 2010, Evanston sampled water from thirty homes with lead service lines and analyzed them for lead and copper content. All results were below the action levels. The 90th percentile level for Lead was less than detection limit of 5 ppb. The 90th percentile level for copper was 0.36 ppm.

MCL – Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water. A MCL is set as close to a MCLG as feasible using the best available treatment technology.

MCLG – Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

mg CaCO₃/L – milligrams of calcium carbonate per liter.

mrem/yr- Millirems Per Year- Measure of radiation absorbed by the body.

MRDL – Maximum Residual Disinfection Level – The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG – Maximum Residual Disinfection Level Goal – The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA- Not applicable.

NTU – Nephelometric turbidity units, measures water clarity.

pCi/L- picocuries per liter- Measure of radioactivity.

ppm – parts per million or milligrams per liter (mg/L).

ppb – parts per billion or micrograms per liter (µg/L).

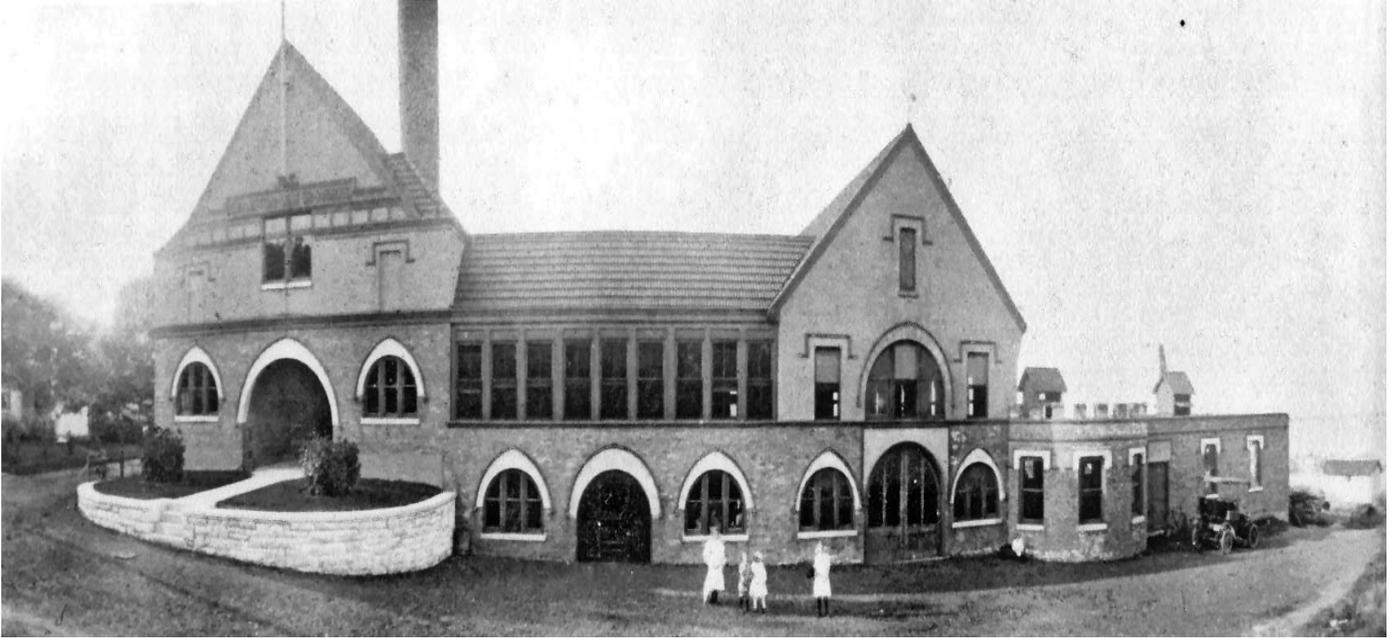
Sodium – There is not a state or federal MCL for sodium. Sodium levels below 20 mg/l (ppm) are not considered to be a health issue.

TT - Treatment Technique, a required process to reduce the level of a contaminant.

Turbidity- a measurement of the cloudiness of the water caused by suspended particles. This is monitored because it is a good indicator of water quality as well as verifying the effectiveness of the filtration and disinfection processes.

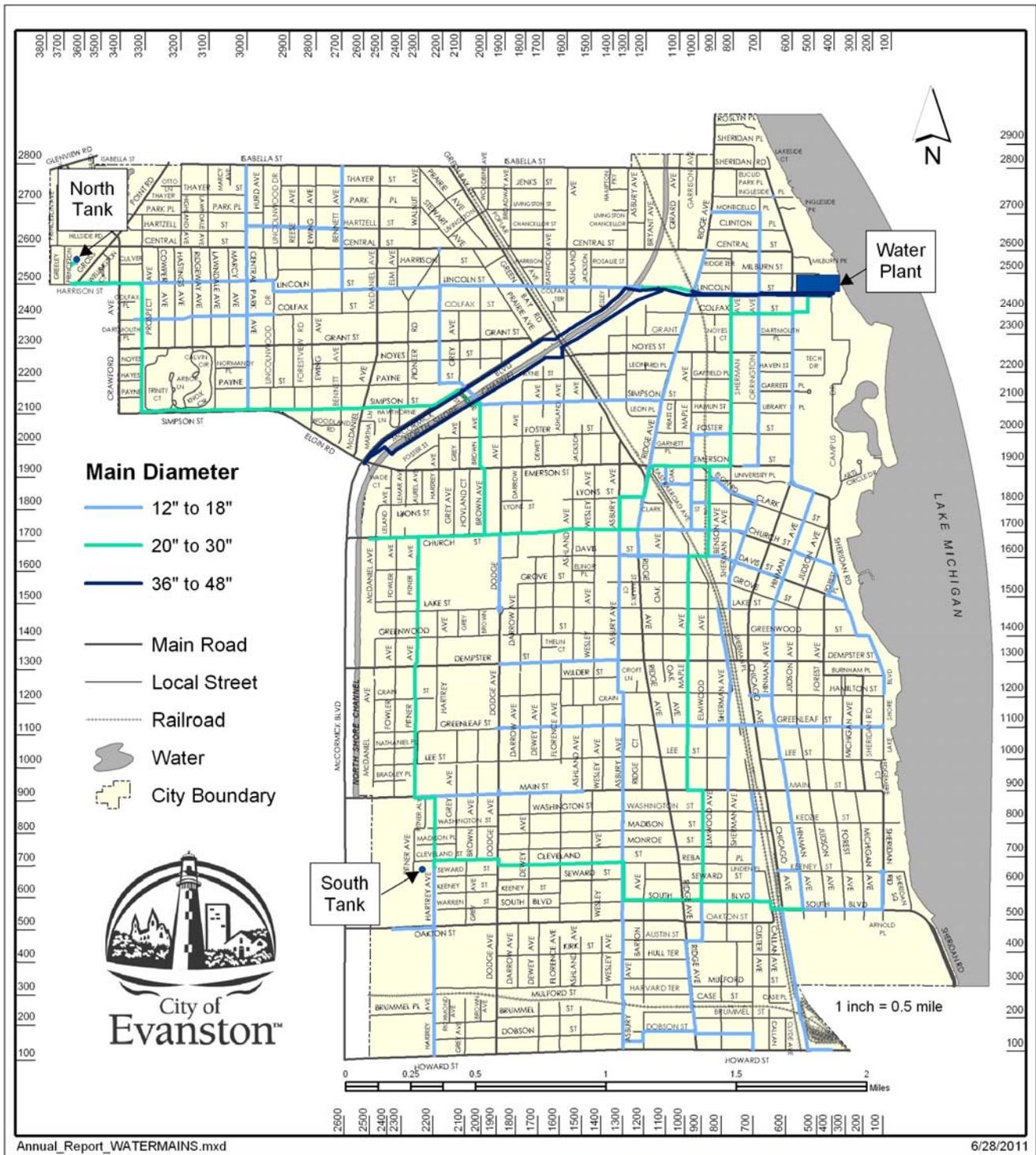
TOC - The Evanston Water Supply monitored the percentage of Total Organic Carbon (TOC) removal quarterly and met all TOC removal requirements set by the IEPA.

Distribution Section



In 1897, the plant received a remodeling and enlargement, as well as a third Holly engine with a capacity of 12 million gallons a day. In 1914 a filter plant was built, making Evanston the first city along Lake Michigan with water treatment. The decline in typhoid and dysentery rates as a result of clean water helped spur Evanston's growth in the years to come.

EVANSTON WATER AND SEWER DIVISION Major Water System



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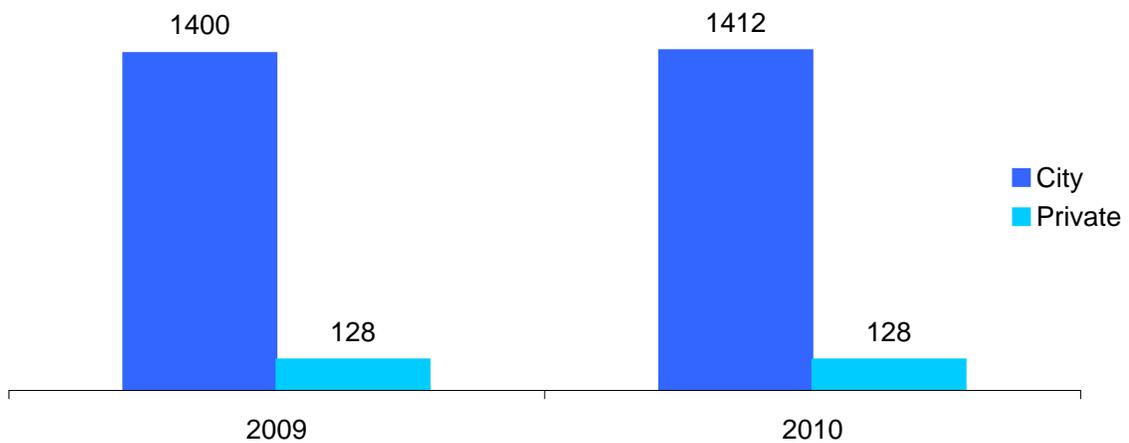
FIRE HYDRANTS

Distribution System

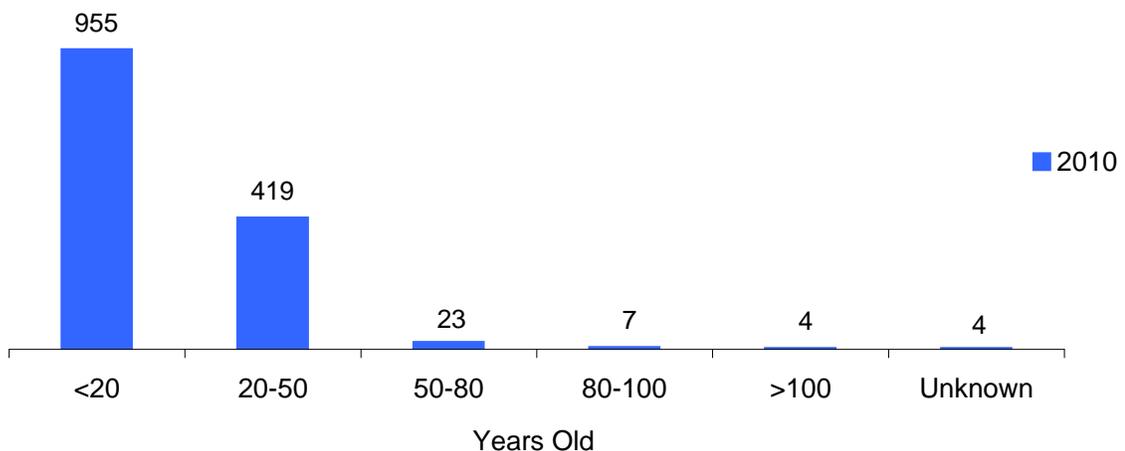
Hydrants Tested for Proper Operation	2009	2010
Fire Department	1,630	1,394
Water Department	84	92

System Improvements In-House Hydrants	2009		2010	
	Count	Average Cost	Count	Average Cost
Installed (new)	6	\$17,540.77	11	\$3,605.73
Replaced	18	\$4,951.72	22	\$935.15
Repaired	119	\$134.03	110	\$114.02

Number of Fire Hydrants by Responsibility



Age of City Fire Hydrants



VALVES

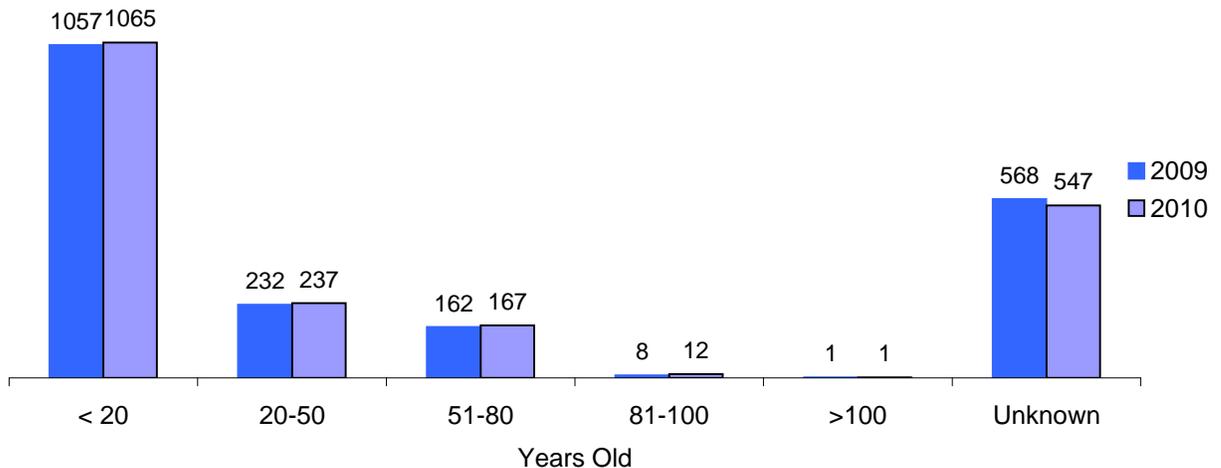
Distribution System

Valves Turned for Proper Operation	2009	2010
In-House	254	1,084
Contractor	n/a	n/a

System Improvements In-House Valves	2009		2010	
	Count	Average Cost	Count	Average Cost
Installed (new)	14	\$2,899.34	12	\$1,684.62
Replaced	20	\$3,288.70	36	\$5,073.78
Repaired	21	\$551.59	7	\$488.09

Number of Distribution Valves by Size	2009	2010
3"	1	1
4"	34	30
6"	1050	1033
8"	435	452
10"	183	183
12"	211	222
14"	2	2
16"	49	49
18"	4	4
20"	2	1
24"	30	25
30"	11	11
36"	12	12
42"	2	2
48"	2	2
Total	2,028	2,029

Age of Distribution System Valves



Water Mains

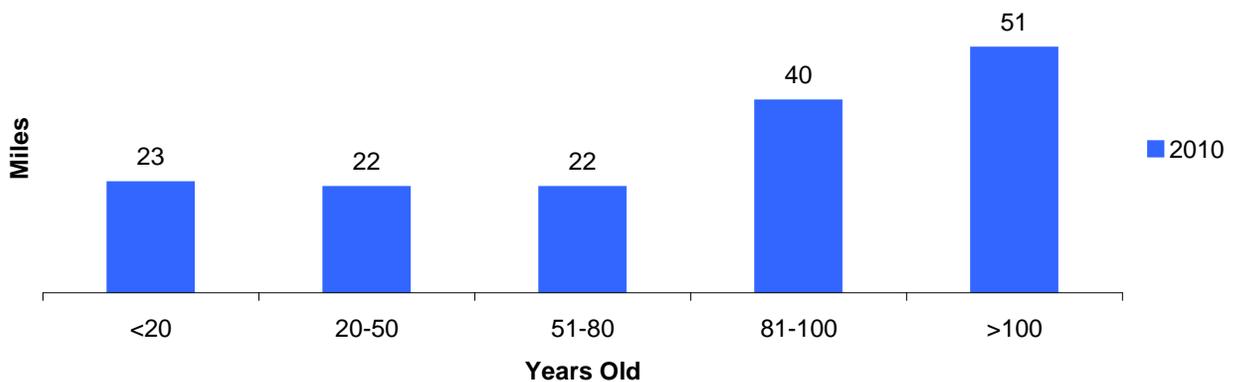
Distribution System

Water Main Installed In-House	2009	2010
Feet Installed	7	-
Average Cost (per foot)	\$1,197.17	-

Water Main Repaired In-House	2009		2010	
	Count	Average Cost	Count	Average Cost
Blow-Out	17	\$4,593.58	28	\$3,938.44
Shear Break	10	\$5,246.96	10	\$6,084.77
Damage	-	-	-	-
<i>Total</i>	<i>27</i>	<i>\$9,840.54</i>	<i>38</i>	<i>\$10,023.21</i>

Length of Water Main by Diameter	2009		2010	
	Feet	Miles	Feet	Miles
3"	782	0.15	784	0.15
4"	12,554	2.38	10,287	1.95
6"	420,875	79.71	415,324	78.66
8"	153,428	29.06	135,801	25.72
10"	65,652	12.43	65,805	12.46
12"	84,764	16.05	87,362	16.55
14"	1,950	0.37	1,950	0.37
16"	33,550	6.35	33,553	6.35
18"	4,389	0.83	4,389	0.83
20"	2,960	0.56	2,567	0.49
24"	43,579	8.25	43,578	8.25
30"	8,927	1.69	8,927	1.69
36"	17,355	3.29	17,405	3.30
42"	186	0.04	186	0.04
48"	3,620	0.69	3,568	0.68
<i>Total</i>	<i>854,571</i>	<i>161.85</i>	<i>831,486</i>	<i>157.48</i>

Age of City Water Main



Water Services

Distribution System

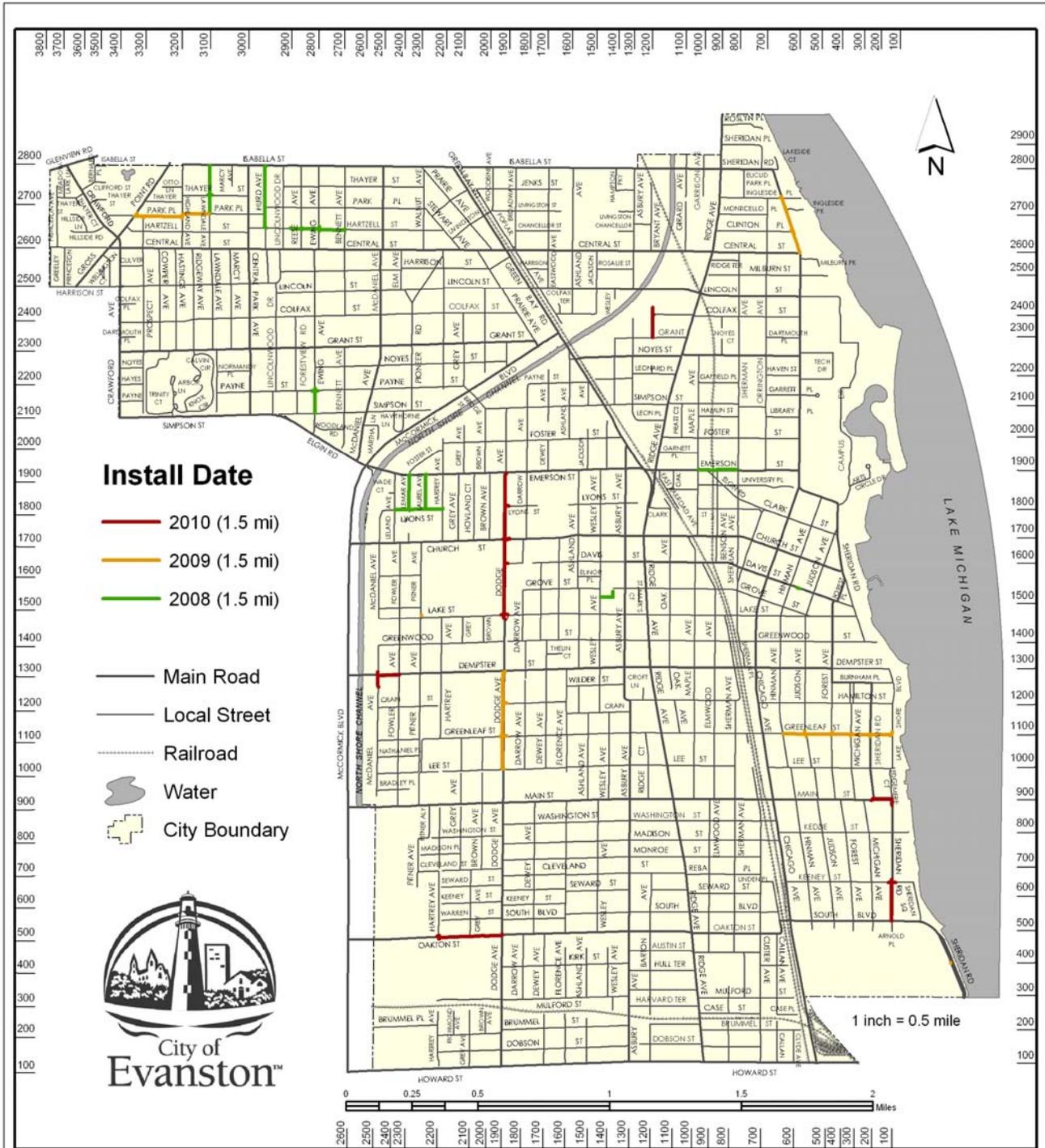
2010 Total Number of Water Service Connections - 15,246

System Improvements In-House <i>Water Services</i>	2009		2010	
	Count	Average Cost	Count	Average Cost
Installed (new)	48	\$495.74	29	\$1,002.55
Repaired	26	\$2,378.46	20	\$3,929.10

2010 Distribution Division - Division of Costs



DISTRIBUTION SECTION Water Main Installed 2008-2010



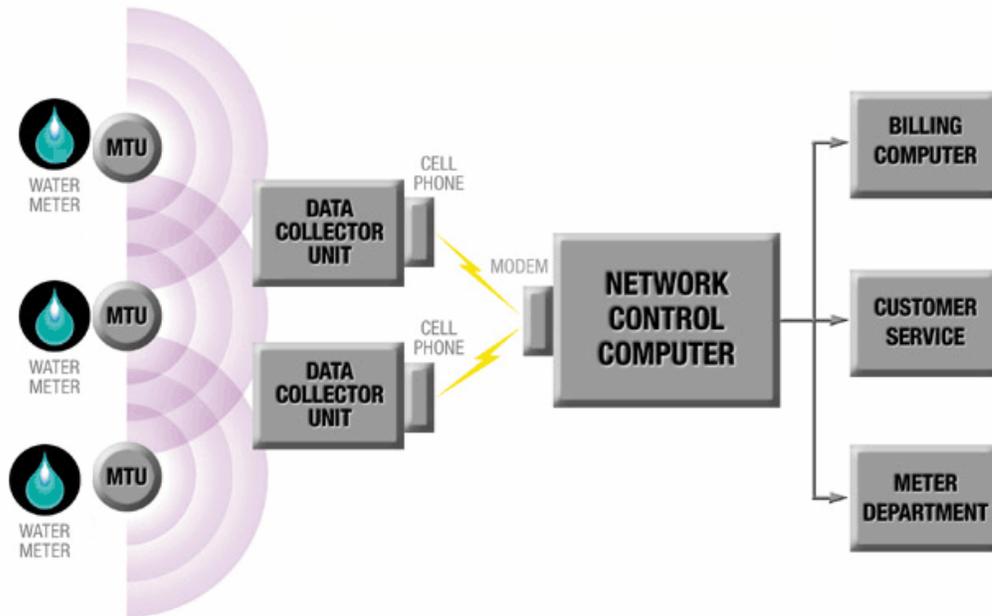
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Meter Section



In 1944, Skokie requested a direct water supply, which Evanston provided in the form of a direct pressure pipeline. By 1948, the growth of Skokie and Evanston made expanding the water plant a necessity. The expansion included a new all-electric high lift pumping station, new mixing and settling basins, a chemical building and laboratory, dry chemical feeders, and the addition of six 4 mgd filters, bringing the total filter capacity to 48 mgd. In 1950, the steam plant was shut down, giving way entirely to electric pumps with two backup gasoline engines.

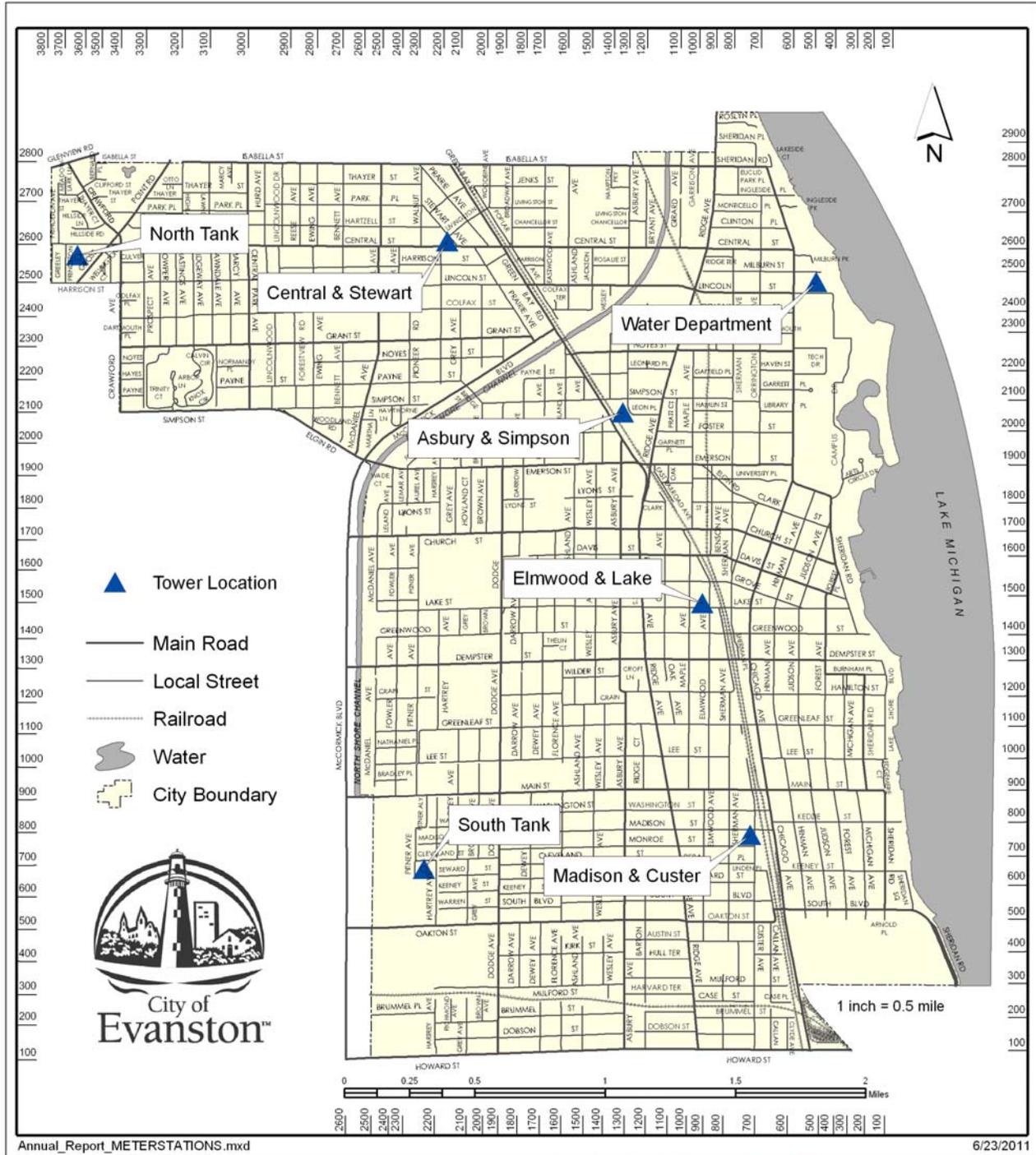
FIXED NETWORK METER READING SYSTEM



Here's how it works:

- The Meter Transmission Unit (MTU) is attached to every water meter in Evanston. Each MTU contains a radio transmitter that, twice per day, broadcasts the meter reading.
- The Data Collector Unit (DCU) receives the MTU radio transmissions and stores the meter reading. Evanston currently has 7 DCUs located on various buildings. Daily each DCU sends its meter reading information to the Network Control System at the Water Plant.
- The Network Control System supports customer service and system management activities and transfers the meter readings to the billing system.

EVANSTON WATER AND SEWER DIVISION Water Meter Reading Transmitter Tower Locations



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2010 Water Rate To Evanston Customers

The City Council adopted ordinance 63-O-10 on October 11, 2010 that established new water billing rates effective January 1, 2011. The ordinance provided for a 10% water rate increase.

Water is billed bi-monthly in hundreds of Cubic Feet.

The minimum demand charge every two months is based on water meter size as follows:

Meter Size	Cost Rate Prior to 1/1/11	Cost Rate After 1/1/11
5/8" & 3/4"	\$5.40	\$5.94
1"	\$10.80	\$11.88
1 1/2"	\$20.20	\$22.22
2"	\$31.80	\$34.98
3"	\$56.00	\$61.60
4"	\$89.70	\$98.68
6"	\$158.20	\$174.02
8"	\$267.80	\$294.58

The minimum demand charge includes the first five hundred cubic feet (500 cu.ft.) of water consumed, or 3,740 gallons of water.

Water usage over the minimum demand is charged as follows:

Usage over 500 cu ft	Cost per 100 cu ft	Cost per 1000 gals
Prior to 1/1/11	\$1.52	\$2.03
After 1/1/11	\$1.67	\$2.23

2010 Water Meter Inventory by Style and Size

Size of Meter	Meter Style	TOTAL
8" Meter	Compound	1
	Turbine	2
6" Meter	Compound	2
	Turbine	2
4" Meter	Compound	15
	Turbine	7
3" Meter	Compound	42
	Turbine	6
2" Meter	Compound	7
	Turbine/T-10	444
1.5" Meter	T-10	242
1" Meter	T-10	1276
3/4" Meter	T-10	722
5/8" Meter	T-10	11580
TOTAL		14348

2010 METER SERVICES

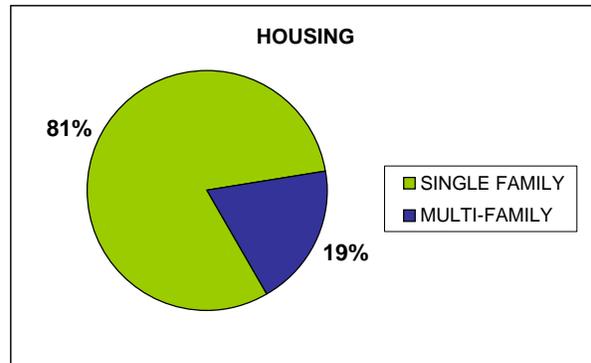
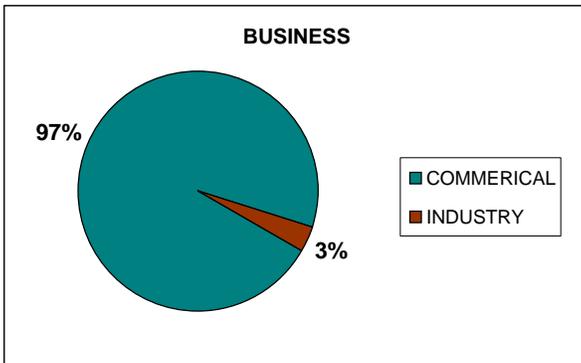
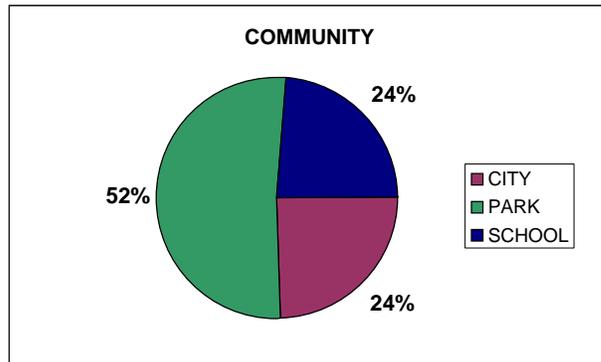
BILLED BY CATEGORY AND WATER USAGE FOR 2010

	NUMBER OF SERVICES	2010 USAGE
SINGLE FAMILY	10,717	1,026,403
MULTI-FAMILY	2,526	1,160,841
COMMERICAL	948	1,153,949
INDUSTRY	34	14,195
CITY	30	14,828
PARK	64	8,171
SCHOOL	29	52,309
TOTAL	14,348	3,430,696

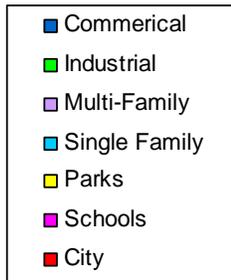
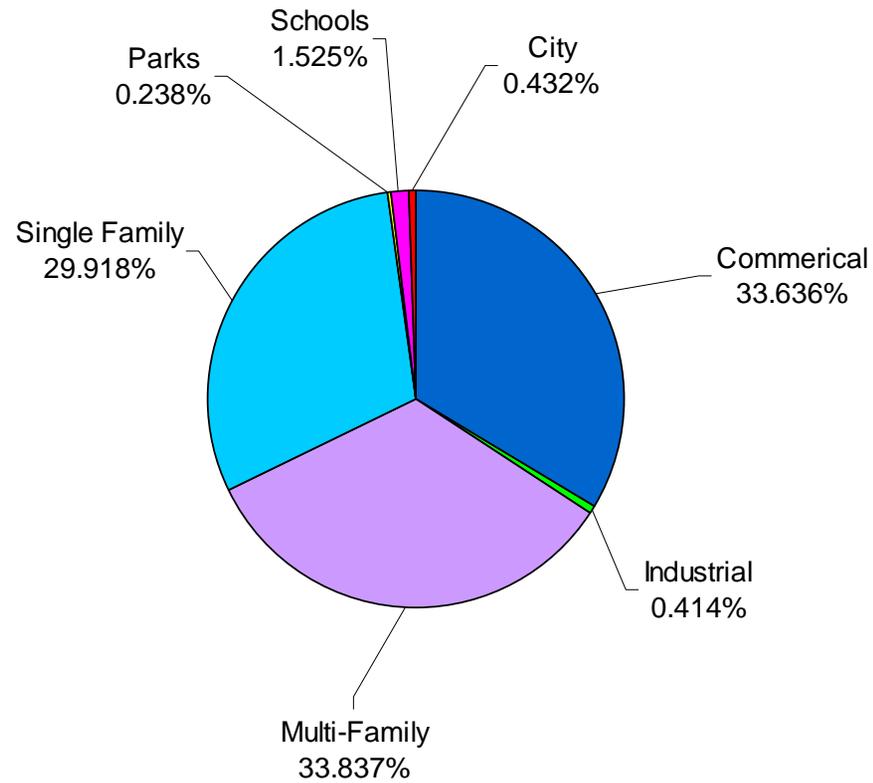
*usage in hundreds of cubic feet

FIRE SERVICES	431	(BILLED SEMI-ANNUALLY)
WATER COOLED AIR CONDITIONING	8	(BILLED ANNUALLY)

SERVICES BY CLASS CODE:



2010 Water Usage by Evanston Customers

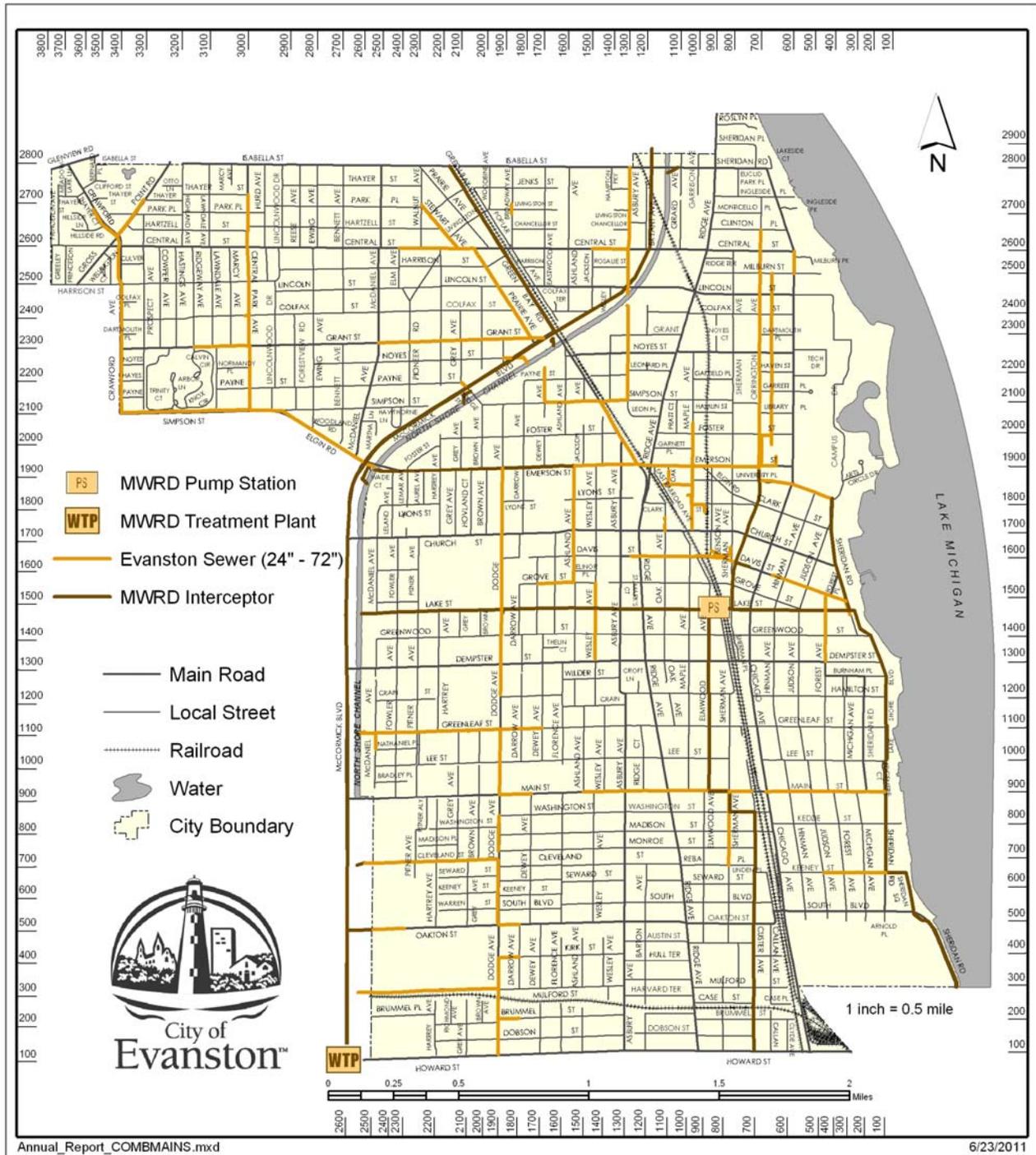


Sewer Section



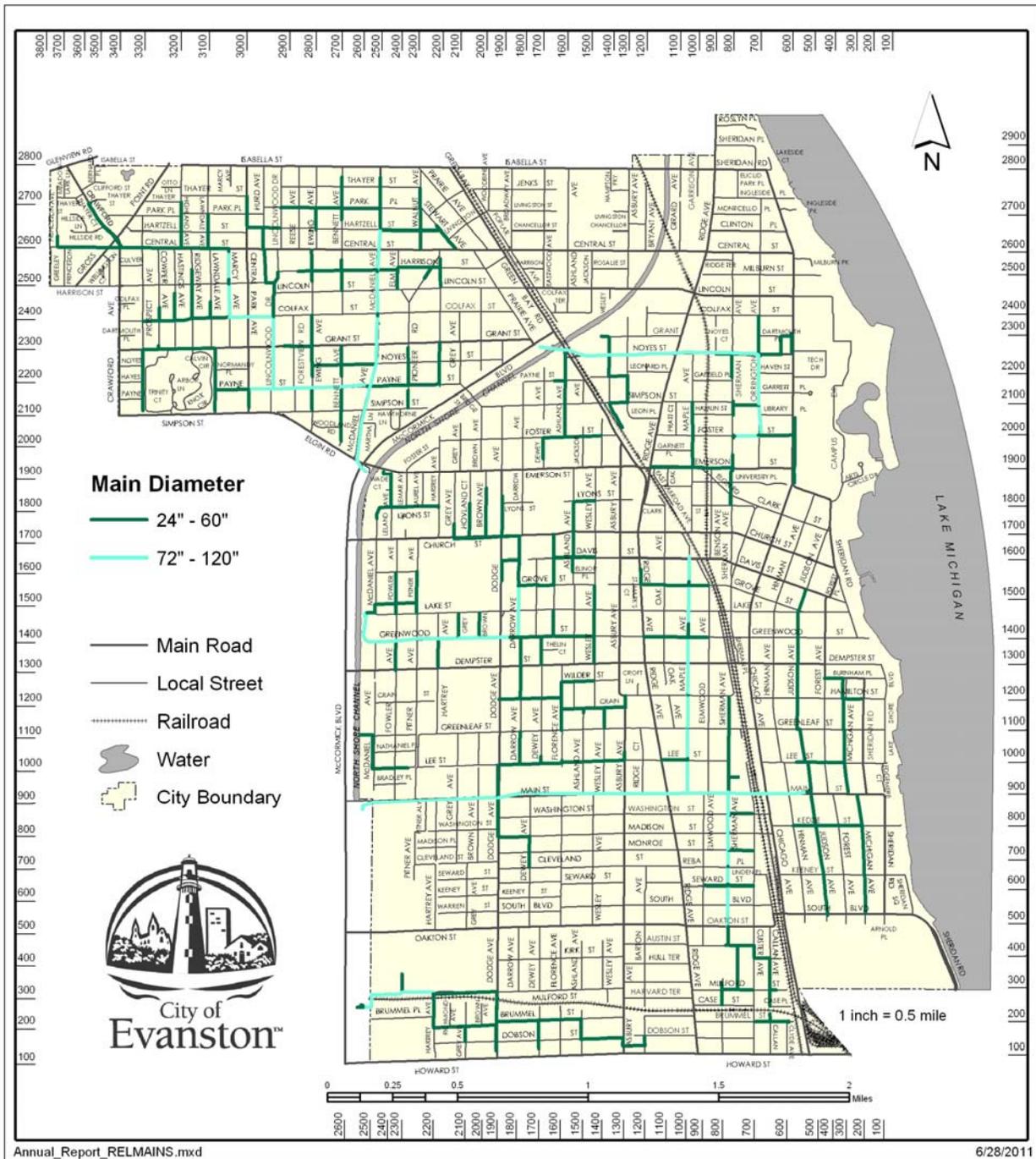
More improvements occurred throughout the 50's and 60's, including eliminating all pollution to Lake Michigan from the plant and increasing the plant's capacity to 147 mgd. In 1980, Evanston signed a contract to provide water to the Northwest Water Commission, consisting of the municipalities of Arlington Heights, Palatine, Buffalo Grove, and Wheeling. From 1980 to 1985, the Water Department received massive capital improvements, updating many of the systems and building two standpipes for North and South Evanston.

EVANSTON WATER AND SEWER DIVISION Major Combined Sewer System



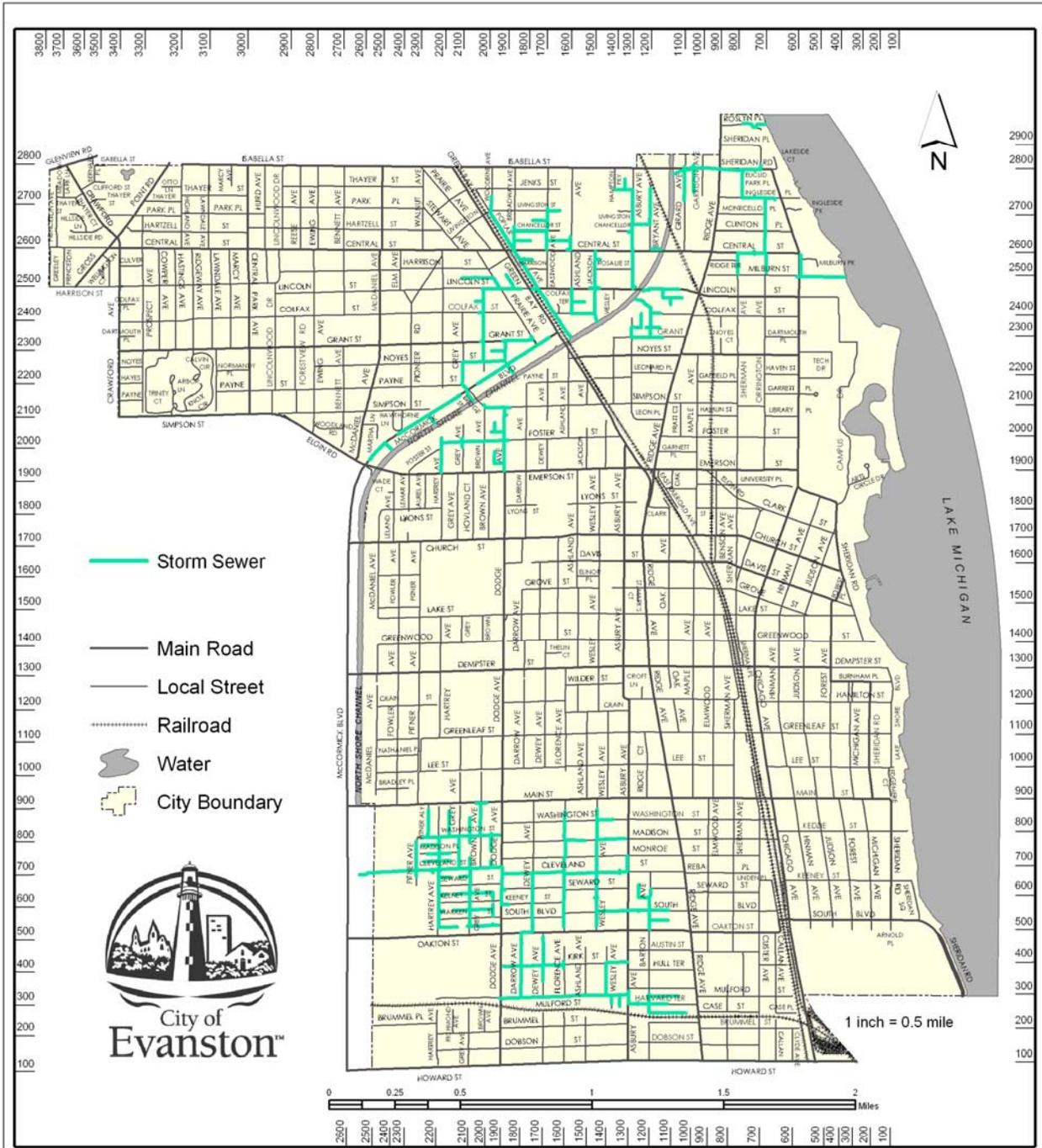
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EVANSTON WATER AND SEWER DIVISION Major Relief Sewer System



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EVANSTON WATER AND SEWER DIVISION Storm Sewer System



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SEWER MAINS

Sewer

Length of Sewer Main by Type*

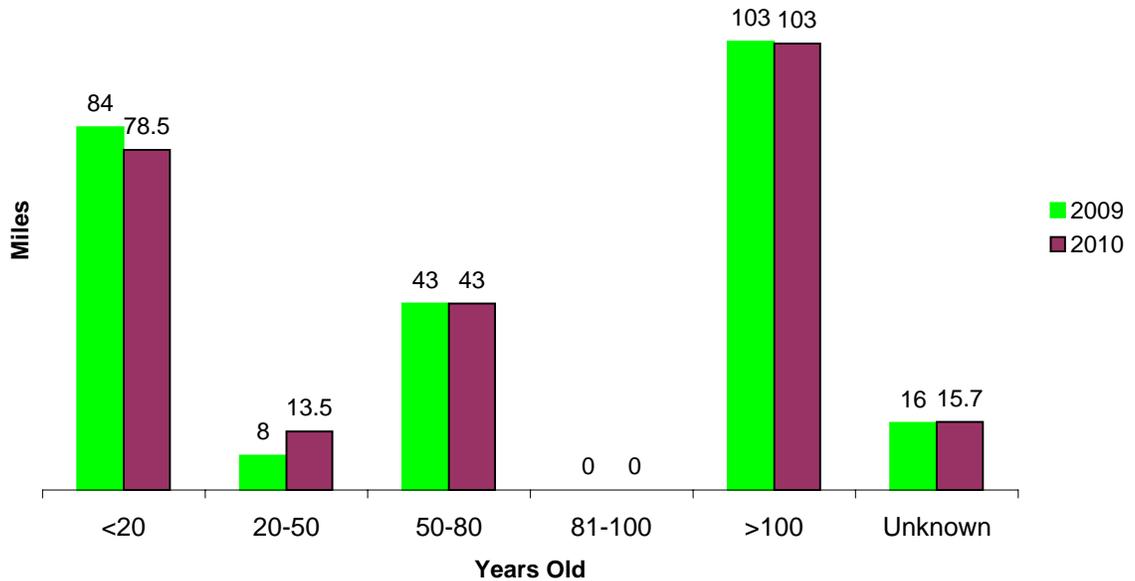
Sewer System Type	Feet	Miles
Combined	754,576	142.91
Relief	266,623	50.51
Storm	85,035	16.11
Total	1,106,234	209.53

*For detailed table of Length of Sewer Main by Type and Diameter see page 52

System Improvements

In-House Sewer Main	2009		2010	
	Length	Average Cost	Length	Average Cost
Installed (new)	121 ft.	\$103.26 per ft.	430 ft.	\$80.39 per ft.
Replaced	485 ft.	\$46.51 per ft.	86 ft.	\$350.75 per ft.
Spot Repair	4,648 ft.	\$20.62 per ft.	1,845 ft.	\$16.27 per ft.
Clean- Hydroflush	221,676 ft.	\$1.01 per ft.	262,451 ft.	\$0.76 per ft.
Clean- Root Cut	9,922 ft.	\$1.47 per ft.	13,330 ft.	\$1.43 per ft.
Closed Circuit TV Inspect	78,806 ft.	\$0.78 per ft.	65,933 ft.	\$0.73 per ft.
Inspect	48,342 ft.	\$0.99 per ft.	38,527 ft.	\$1.10 per ft.
Inspect (Storm)	9,609 ft.	\$0.31 per ft.	4,043 ft.	\$0.42 per ft.

Age of City Sewer Mains



SEWER MAINS

Sewer

Length of Sewer Main by Type and Diameter	Combined		Relief		Storm	
	Feet	Miles	Feet	Miles	Feet	Miles
6"	2,969	0.56	243	0.05	-	-
8"	19,491	3.69	9,343	1.77	2,154	0.41
9"	121,408	22.99	6,795	1.29	895	0.17
10"	108,953	20.64	23,388	4.43	9,975	1.89
12"	226,426	42.88	23,733	4.49	10,332	1.96
14"	1,019	0.19	-	-	-	-
15"	93,373	17.68	5,507	1.04	5,249	0.99
16"	1,621	0.31	5,669	1.07	724	0.14
18"	60,092	11.38	15,328	2.90	7,694	1.46
20"	9,211	1.74	127	0.02	-	-
21"	14,783	2.80	2,747	0.52	1,910	0.36
22"	1,081	0.20	-	-	-	-
24"	20,601	3.90	45,007	8.52	15,959	3.02
27"	6,159	1.17	6,373	1.21	3,240	0.61
30"	7,008	1.33	18,206	3.45	3,913	0.74
33"	3,771	0.71	1,309	0.25	482	0.09
36"	19,564	3.71	18,734	3.55	6,730	1.27
39"	421	0.08	-	-	-	-
40"	377	0.07	-	-	-	-
42"	6,700	1.27	12,266	2.32	3,570	0.68
45"	1,029	0.19	-	-	-	-
48"	13,118	2.48	22,579	4.28	7,966	1.51
51"	1,532	0.29	-	-	-	-
54"	1,842	0.35	3,159	0.60	609	0.12
57"	784	0.15	-	-	-	-
60"	7,164	1.36	4,916	0.93	3,633	0.69
72"	4,079	0.77	11,661	2.21	-	-
78"	-	-	5,440	1.03	-	-
84"	-	-	88	0.02	-	-
96"	-	-	2,366	0.45	-	-
108"	-	-	5,025	0.95	-	-
113"	-	-	9,275	1.76	-	-
120"	-	-	7,340	1.39	-	-
Total	754,576	142.91	266,623	50.51	85,035	16.11

SEWER STRUCTURES

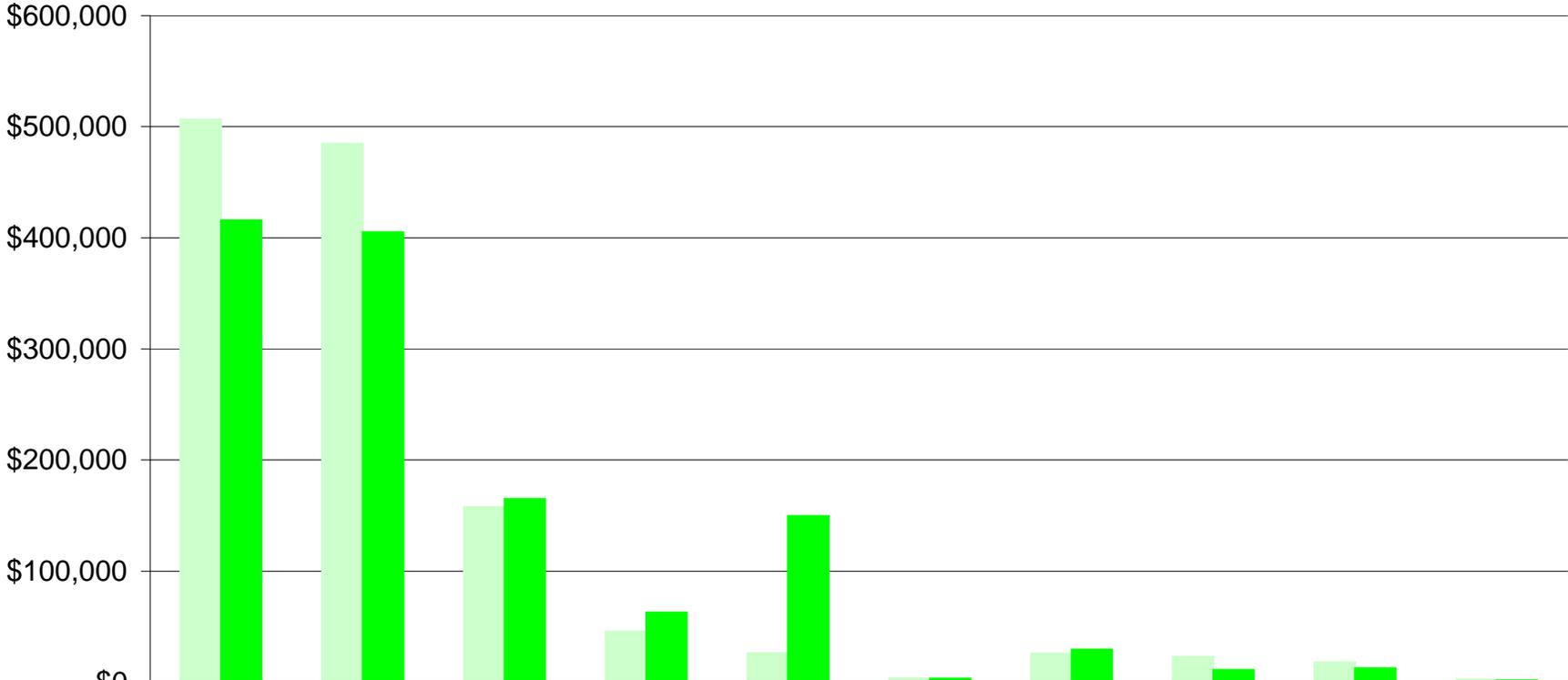
Sewer

Number of Sewer Structures	2009	2010
Manholes	5,540	5,453
Inlets	2,819	2,826
Catchbasins	6,214	6,217
Total Sewer Structures	14,573	14,496

System Improvements	2009		2010	
	Count	Average Cost	Count	Average Cost
In-House Sewer Structures				
Installed (new)	4	\$2,255.49	3	\$2,864.85
Replaced	25	\$4,590.18	16	\$4,760.77
Repair	151	\$611.34	119	\$966.31
Clean	3,157	\$70.54	2,750	\$59.79
Inspect	208	\$131.22	325	\$79.93
Inspect (Storm)	943	\$42.75	562	\$45.06

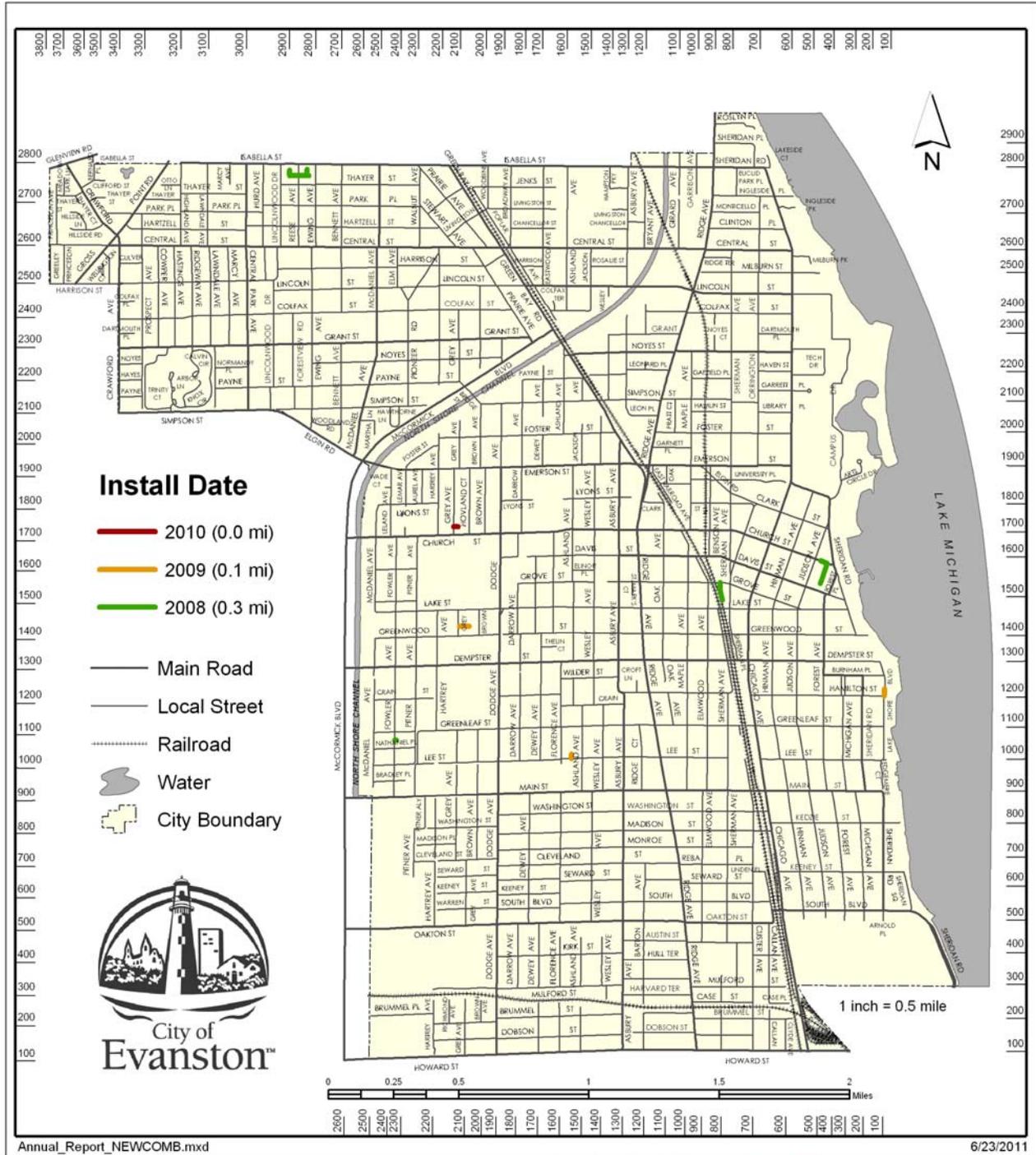
2010 Sewer Division - Division of Costs

2009 2010



	Sewer Structures	Sewer Mains	Equip/Facility Maint.	Assist W&S Divisions	Snow & Ice Removal	Assist Contractors	Assist Other City Depts.	Safety & Training	Misc.	JULIE Locates
2009	\$506,297	\$484,385	\$157,495	\$45,462	\$26,001	\$3,401	\$25,590	\$22,687	\$17,702	\$2,394
2010	\$415,475	\$404,874	\$164,813	\$62,576	\$149,395	\$3,190	\$29,250	\$10,973	\$12,598	\$1,622

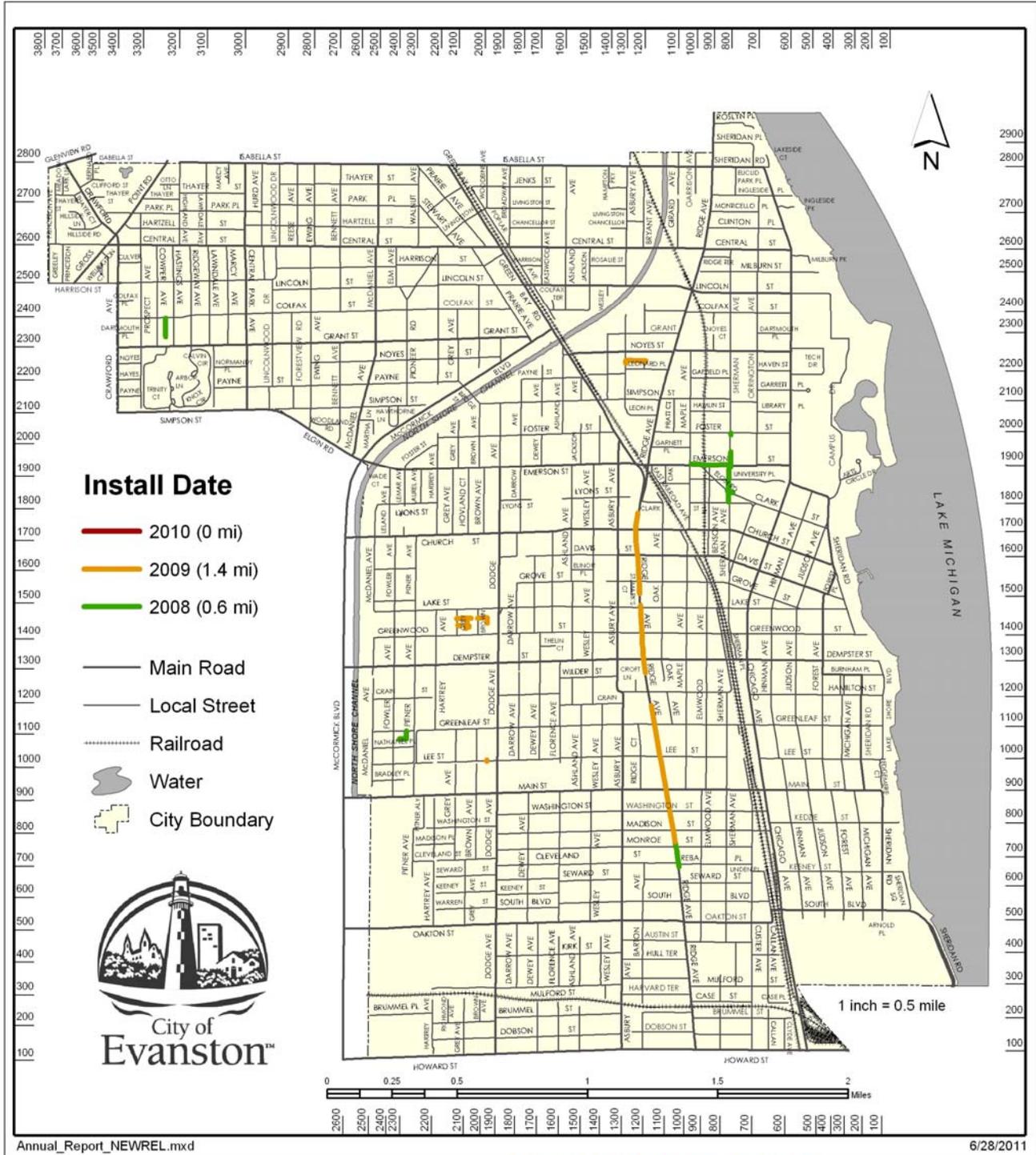
SEWER SECTION Combined Sewer Main Installed 2008-2010



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SEWER SECTION

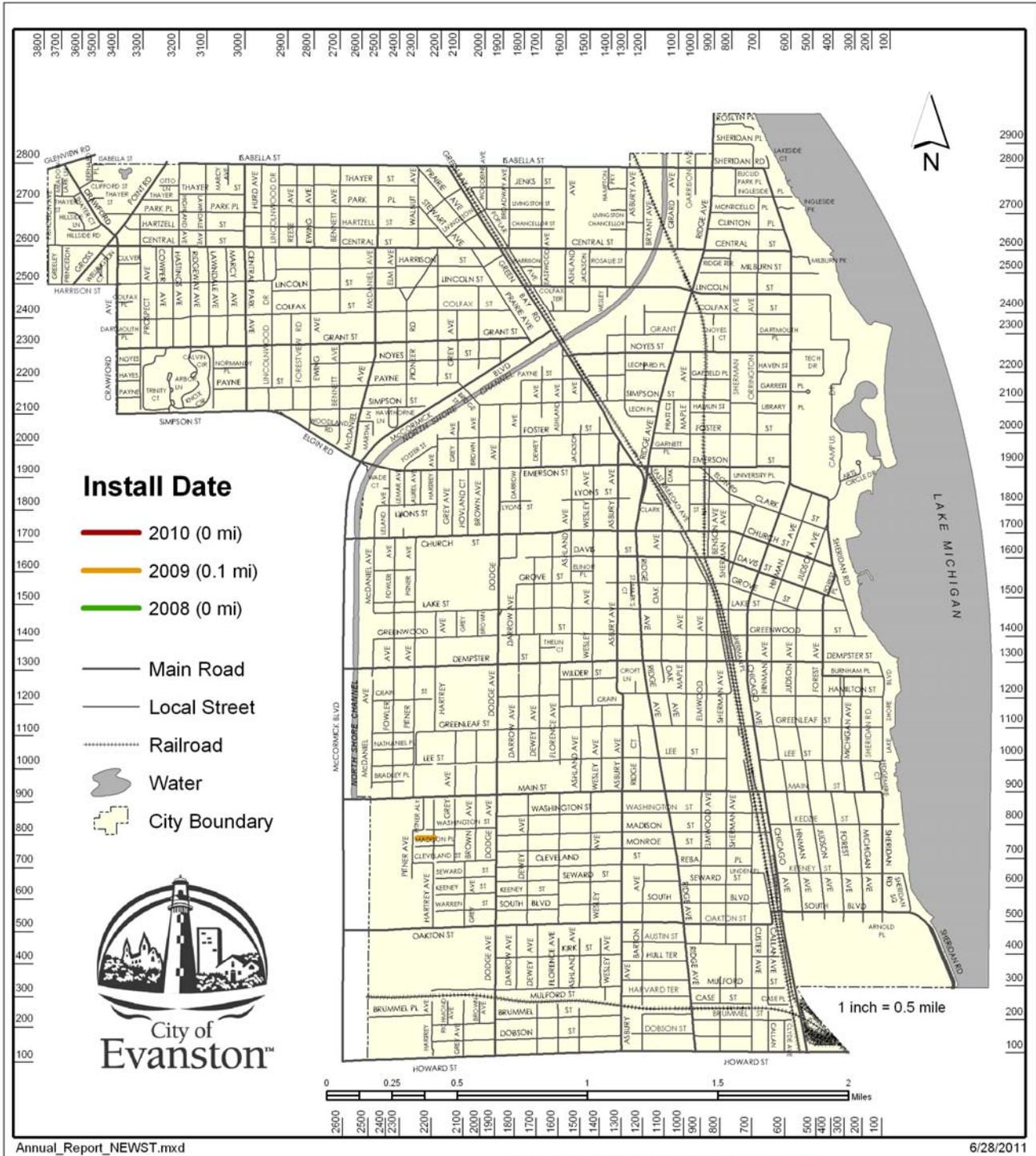
Relief Sewer Main Installed 2008-2010



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SEWER SECTION

Storm Sewer Main Installed 2008-2010



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