2009 Annual Report

City of Evanston

Evanston Water and Sewer Division

135 Years of Serving the Community

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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 70 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

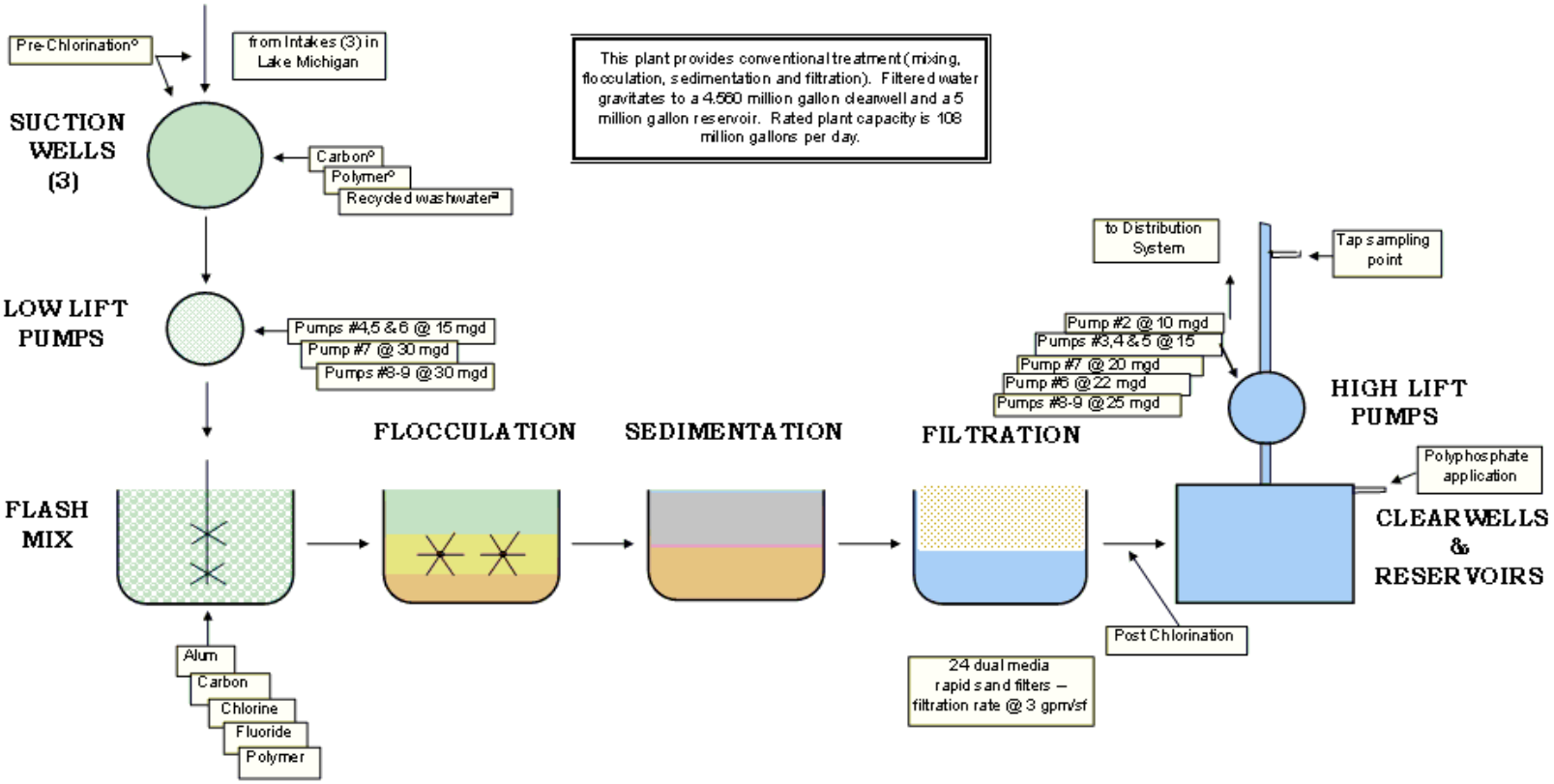
Wash Water Pumps
2 – 20 mgd
2 – 10 mgd

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*	Notes: °alternate feed point ¤avg. 1% of raw water flow *based on 8.0' depth
Adjustments to include volumes in connecting piping	0.110	2.390	13.520	1.070	4.570*	

Water Works Improvements (1913 to 2008)

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 o 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 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.

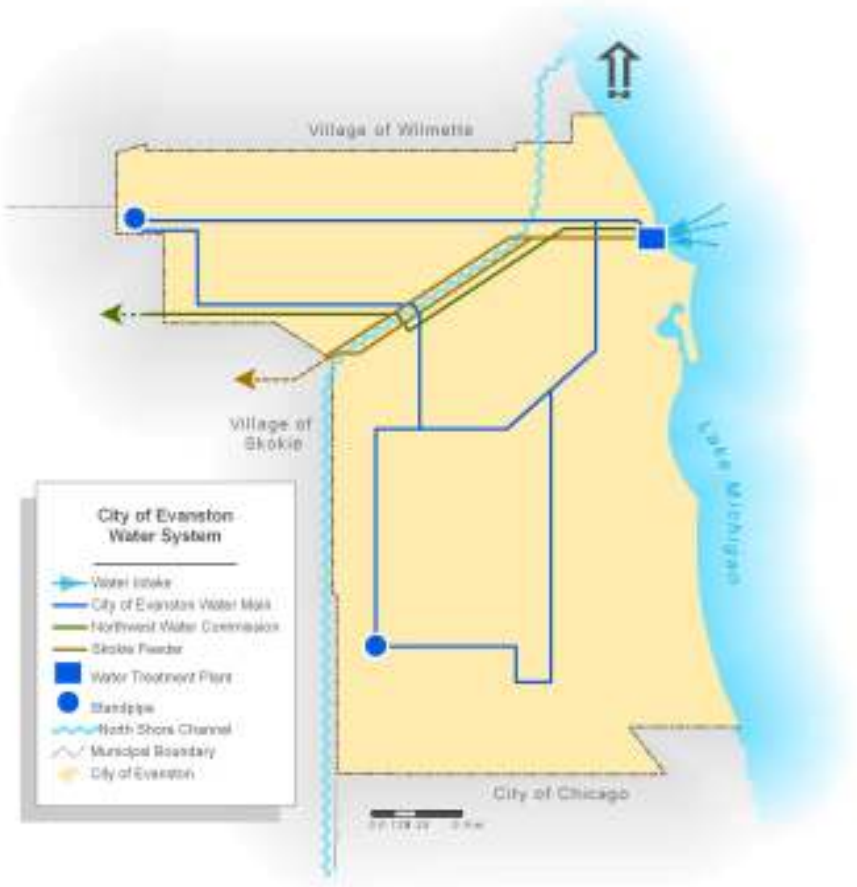
2009 -Implemented AQUAS (Harris) Utility Billing System.
-Installed Anchor Ice and Zebra Mussel Control Systems in 54" intake.
-Tuck pointed Pumping Station Building.
-Installed 24" Mag meter on 1964 (east) 36" transmission main to Skokie.

Service Area & Population

General Statistics

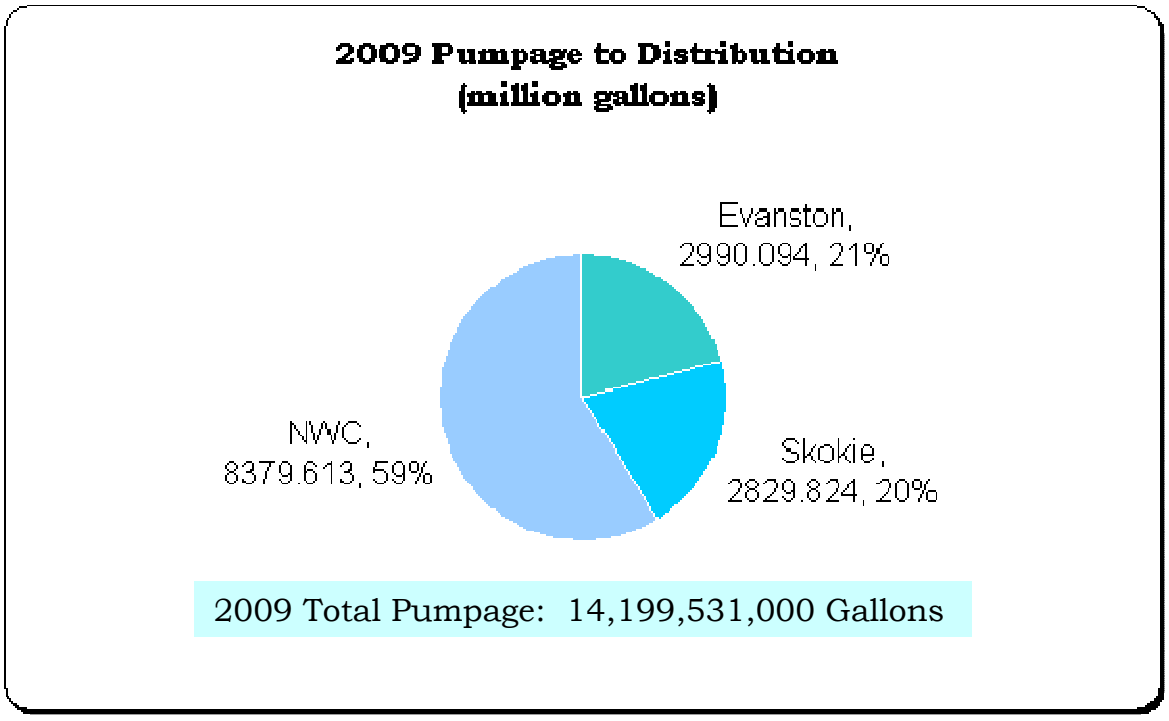
	Area (Square Miles)	2009 Persons*
Evanston	7.8	74,360
Skokie	10.5	63,633
NORTHWEST WATER COMMISSION		
Arlington Heights	15	75,784
Buffalo Grove	4.5	43,237
Palatine	9	66,848
Wheeling	7.5	35,495
Total Served	**54.3**	**359,357**

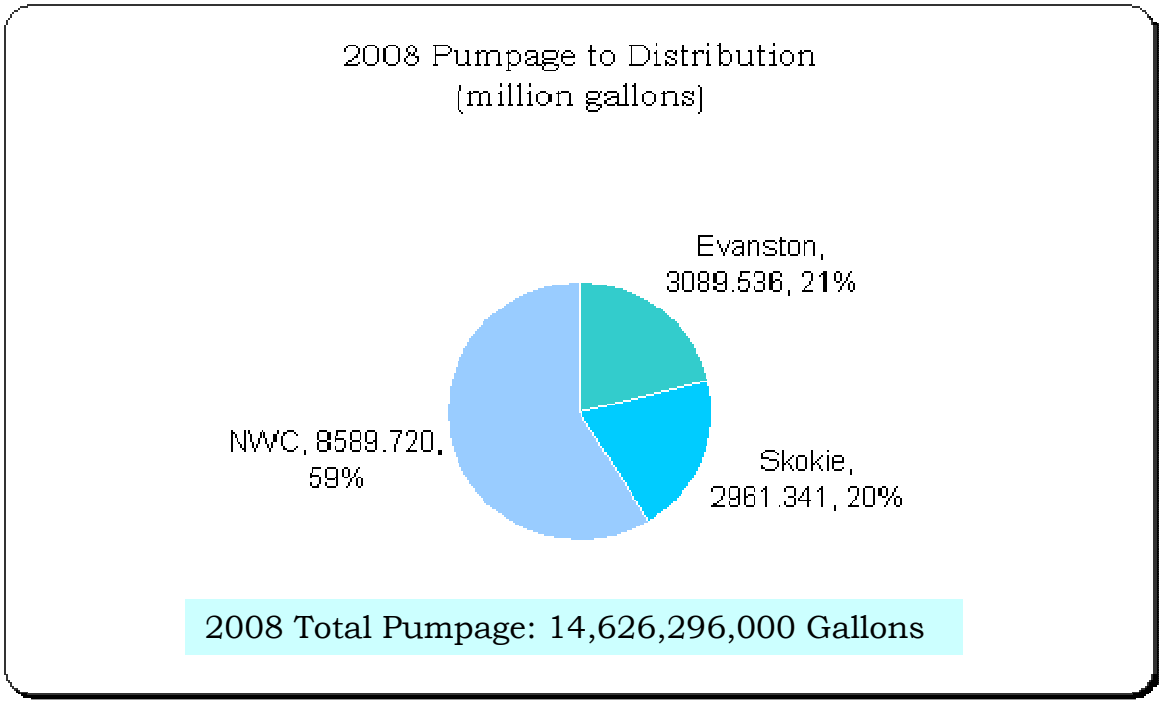
*U.S. Census Bureau July, 2002 Population Estimates



Pumpage to Distribution

General Statistics

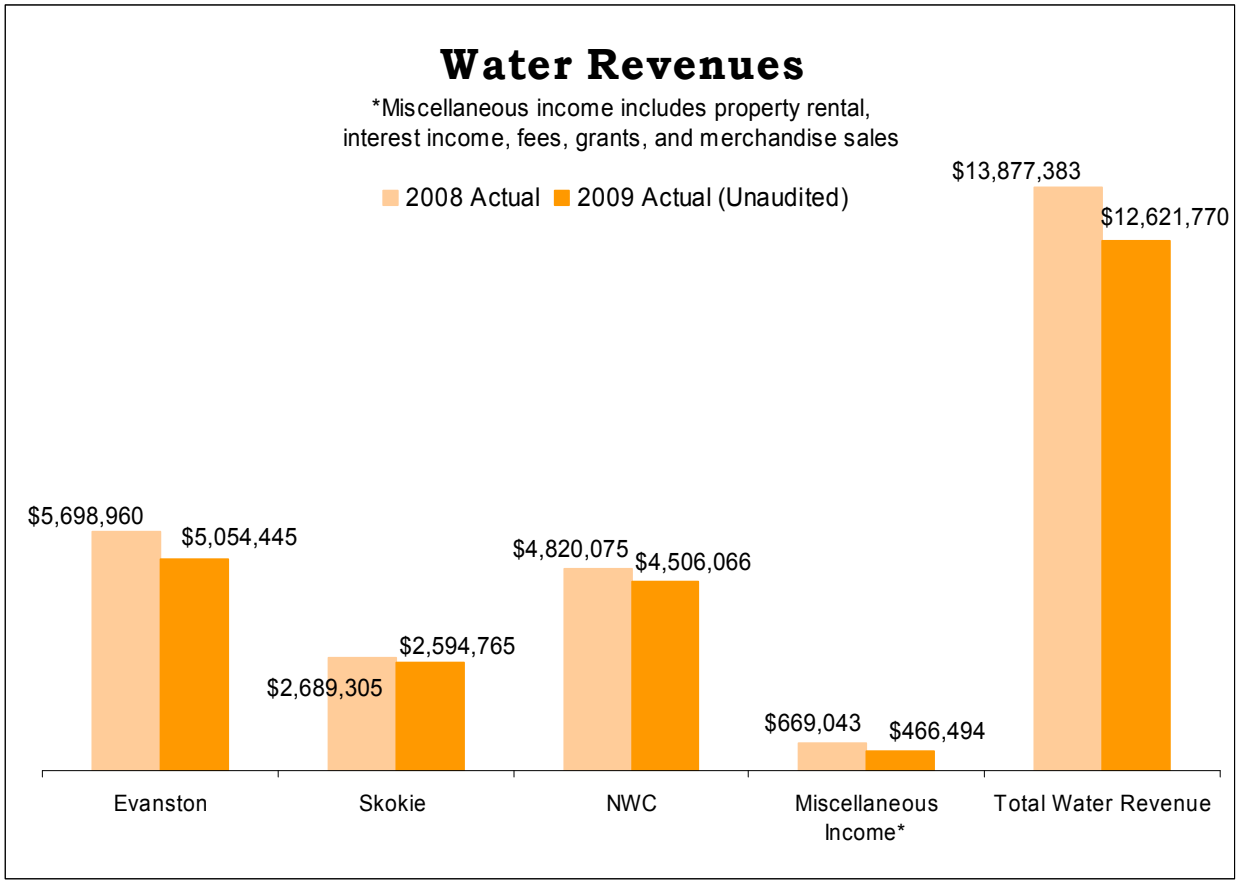




Water Revenues

	2008 (Audited)	2009 (Unaudited)
Evanston	$5,698,960	$5,054,445
Skokie	$2,689,305	$2,594,765
NWC	$4,820,075	$4,506,066
Miscellaneous Income*	$669,043	$466,494
Total Water Revenue	**$13,877,383**	**$12,621,770**

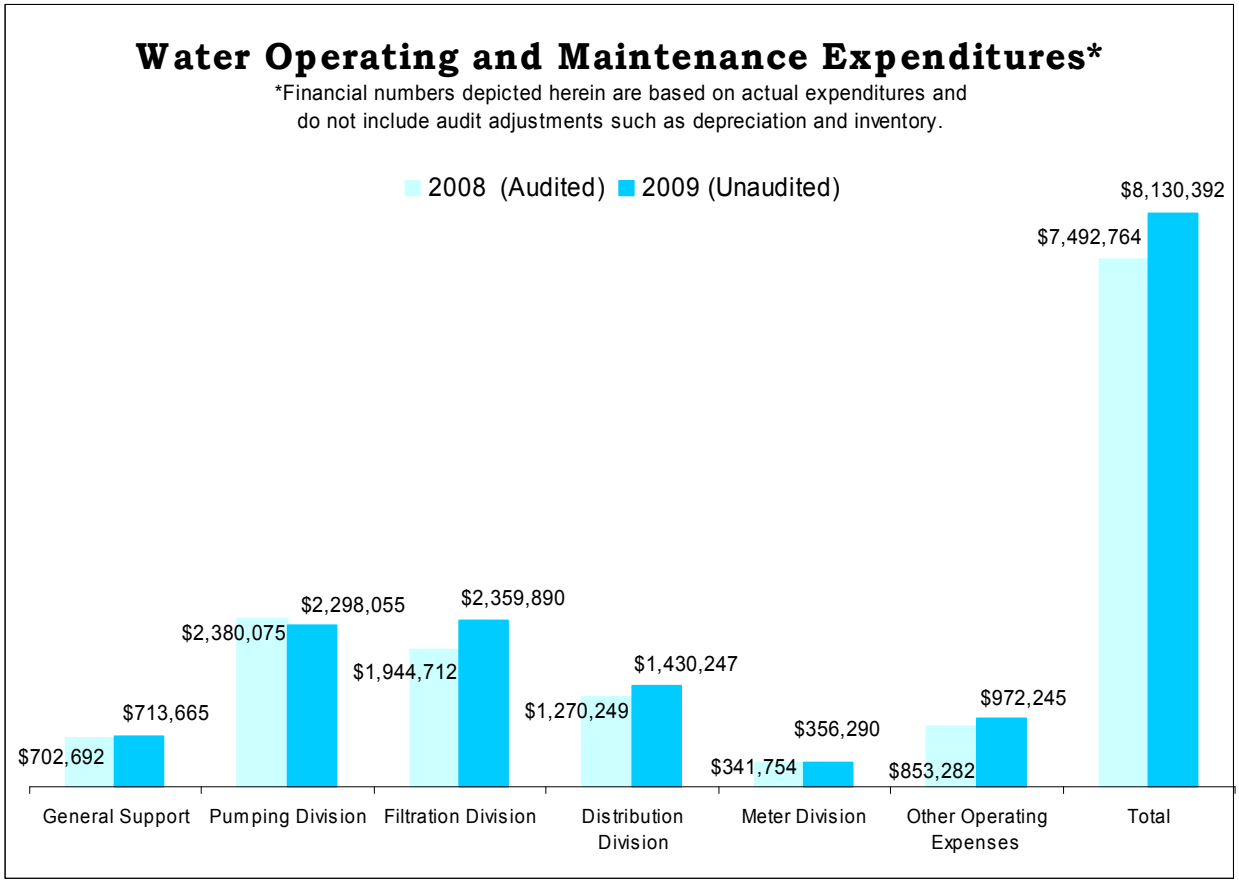
*Miscellaneous income includes property rental, interest income, fees, grants, and merchandise sales.



Water Operating & Maintenance Expenditures*

	2008 (Audited)	2009 (Unaudited)
General Support	$702,692	$713,665
Pumping Division	$2,380,075	$2,298,055
Filtration Division	$1,944,712	$2,359,890
Distribution Division	$1,270,249	$1,430,247
Meter Division	$341,754	$356,290
Other Operating Expenses	$853,282	$972,245
Total	**$7,492,764**	**$8,130,392**

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

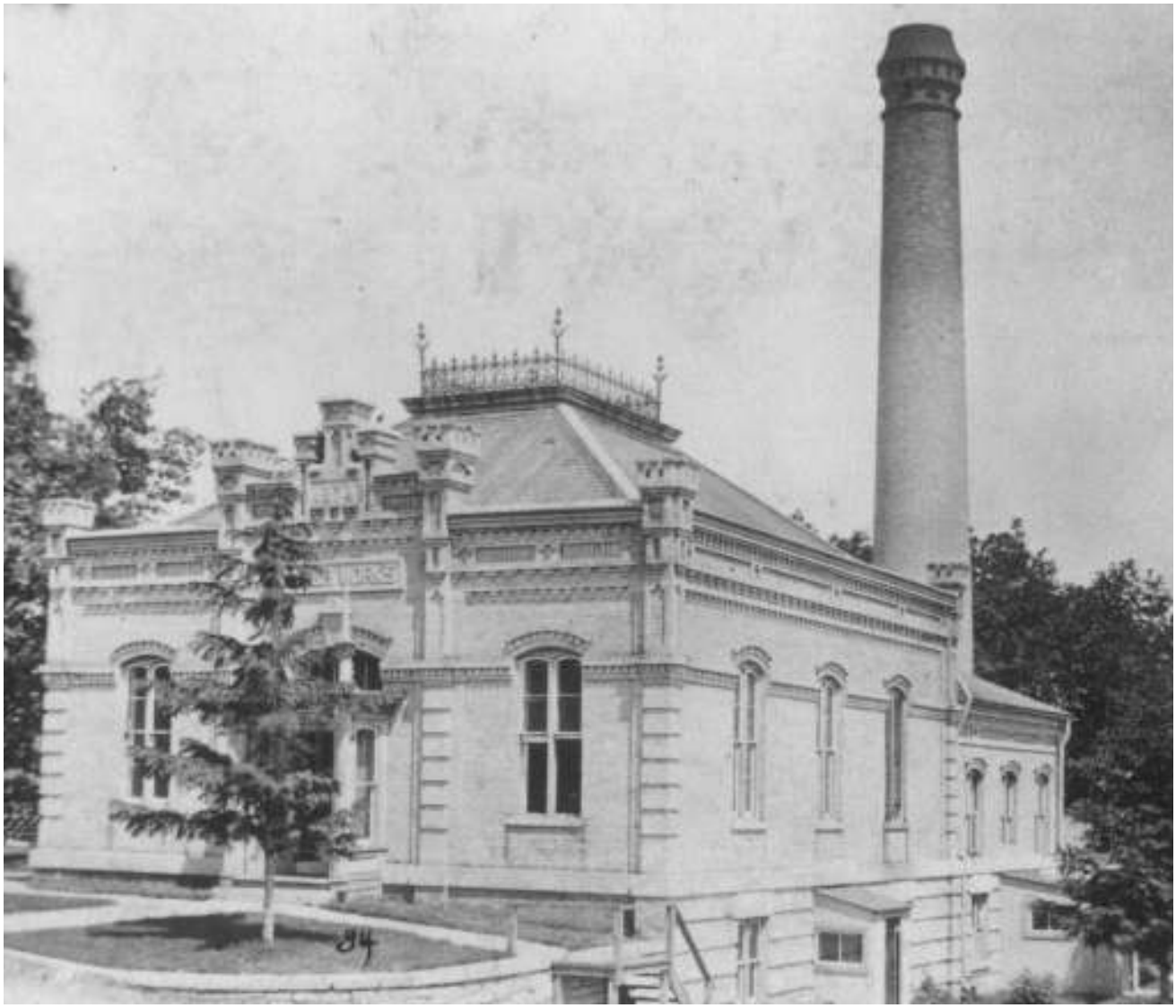
General Statistics

Section	Number of Employees
Administration	6
Pumping	11
Filtration	13
Distribution	11
Sewer	10
Meter	3
Apprentices	1
Total	**55**

Section	Number of AFMD Start 3/1/2009	Number of Injuries	Highest Consecutive AFMD	Number of AFMD Finish 2/28/2010
Pumping	52	2	2,399 - 7/1/2009	1,607
Filtration	66	0	3,191 - 2/28/2010	3,191
Distribution	1,673	2	2,062 - 5/7/2009	349
Sewer	52	1	1,208 - 2/28/2010	1,208
Meter	5,178	0	6,219 - 2/28/2010	6,219

*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.

2009/10 Monthly Pumpage (Million Gallons)

Pumping

Month	Lake Water Pumpage	Wash Water Recycled	Total Raw Water Pumpage	Finished Water Pumpage	Plant Use	Pumpage To Distribution	Evanston	Skokie	N.W.C.
Mar-09	1,107.701	11.665	1,119.366	1,112.038	4.169	1,107.869	226.034	239.925	641.910
Apr-09	1,094.602	14.125	1,108.727	1,095.242	6.594	1,088.648	238.397	214.079	636.172
May-09	1,243.253	13.084	1,256.337	1,233.033	7.029	1,226.004	259.627	237.157	729.220
Jun-09	1,243.325	11.685	1,255.010	1,242.378	5.655	1,236.723	258.895	244.624	733.204
Jul-09	1,430.270	17.347	1,447.617	1,429.999	6.418	1,423.581	295.291	291.053	837.237
Aug-09	1,443.943	16.352	1,460.295	1,444.839	6.650	1,438.189	296.360	291.135	850.694
Sep-09	1,279.480	13.139	1,292.619	1,276.914	5.370	1,271.544	270.914	257.719	742.911
Oct-09	1,134.841	54.499	1,189.340	1,145.850	21.744	1,124.106	248.638	226.594	648.874
Nov-09	1,134.841	11.009	1,145.850	1,129.437	73.143	1,056.294	242.957	203.512	609.825
Dec-09	1,099.489	9.657	1,109.146	1,101.580	4.570	1,097.010	223.361	210.220	663.429
Jan-10	1,125.157	9.938	1,135.095	1,131.900	5.034	1,126.866	228.784	218.393	679.689
Feb-10	1,026.145	11.341	1,037.486	1,007.125	4.428	1,002.697	200.836	195.413	606.448
Annual Total	**14,363.05**	**193.84**	**14,556.89**	**14,350.34**	**150.80**	**14,199.53**	**2,990.09**	**2,829.82**	**8,379.61**

2009/10 Average Daily Pumpage (MGD)*

Pumping

Month	Lake Water Pumpage	Wash Water Recycled	Total Raw Water Pumpage	Finished Water Pumpage	Plant Use	Pumpage To Distribution	Evanston	Skokie	N.W.C.
Mar-09	35.732	0.376	36.109	35.872	0.134	35.738	7.291	7.740	20.707
Apr-09	36.487	0.471	36.958	36.508	0.220	36.288	7.947	7.136	21.206
May-09	40.105	0.422	40.527	39.775	0.227	39.549	8.375	7.650	23.523
Jun-09	41.444	0.389	41.834	41.413	0.188	41.224	8.630	8.154	24.440
Jul-09	46.138	0.560	46.697	46.129	0.207	45.922	9.526	9.389	27.008
Aug-09	46.579	0.527	47.106	46.608	0.215	46.393	9.560	9.391	27.442
Sep-09	42.649	0.438	43.087	42.564	0.179	42.385	9.030	8.591	24.764
Oct-09	36.608	1.758	38.366	36.963	0.701	36.261	8.021	7.309	20.931
Nov-09	37.828	0.367	38.195	37.648	2.438	35.210	8.099	6.784	20.328
Dec-09	35.467	0.312	35.779	35.535	0.147	35.387	7.205	6.781	21.401
Jan-10	36.295	0.321	36.616	36.513	0.162	36.351	7.380	7.045	21.925
Feb-10	36.648	0.405	37.053	35.969	0.158	35.811	7.173	6.979	21.659
ANNUAL AVERAGE	**39.351**	**0.531**	**39.882**	**39.316**	**0.413**	**38.903**	**8.192**	**7.753**	**22.958**

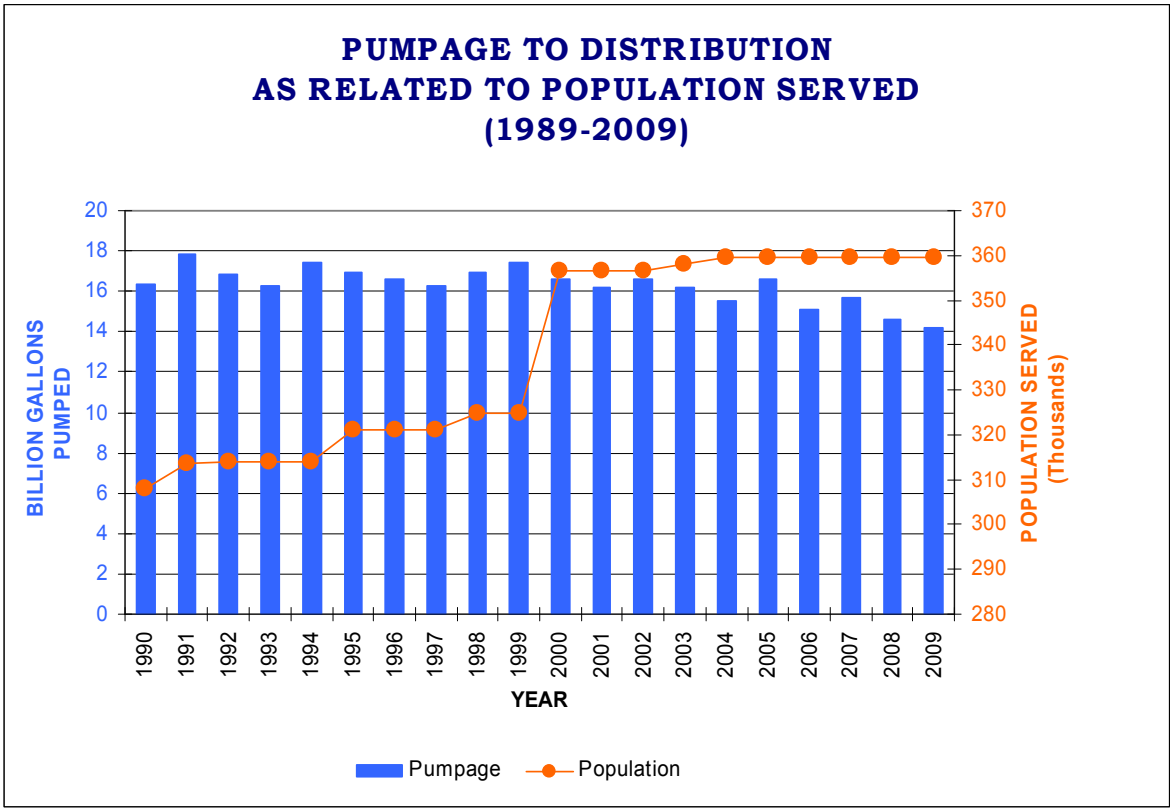
***Million Gallons Per Day**

2009/10 Yearly Pumpage (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.
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
1999	17,559.875	188.211	17,748.086	17,501.266	62.212	17,439.054	3,717.297	3,891.257	9,830.500

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



Average Daily Per Capita Consumption

	Evanston		Skokie		Northwest Water Commission	
Year	Population	Gal. Per Capita Use	Population	Gal. Per Capita Use	Population	Gal. Per Capita Use
2003	73,421	128	63,126	157	221,643	112
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

Combined Total

Year	Population	Gal. Per Capita Use
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

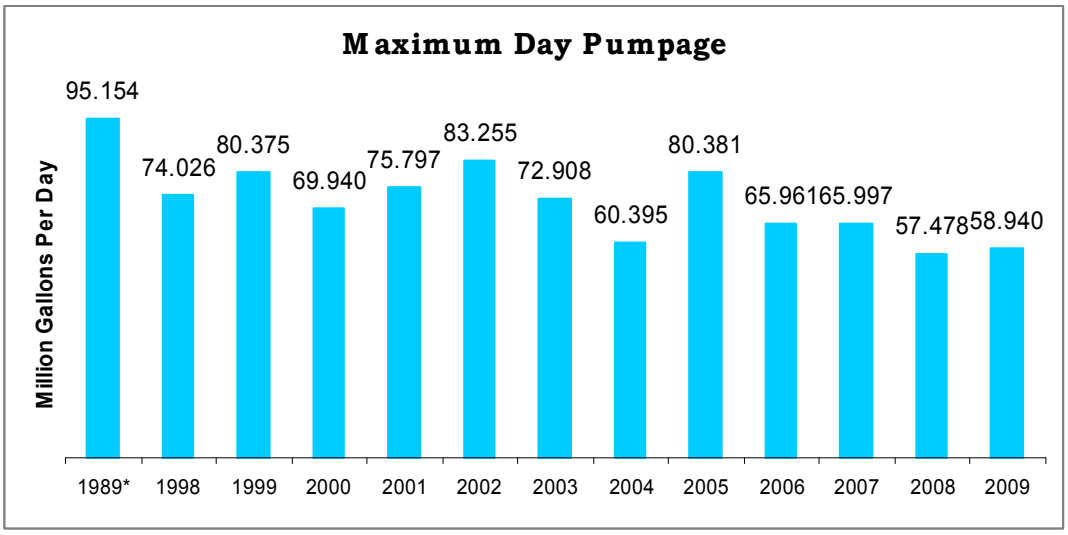
MAXIMUM PUMPAGE TO DISTRIBUTION

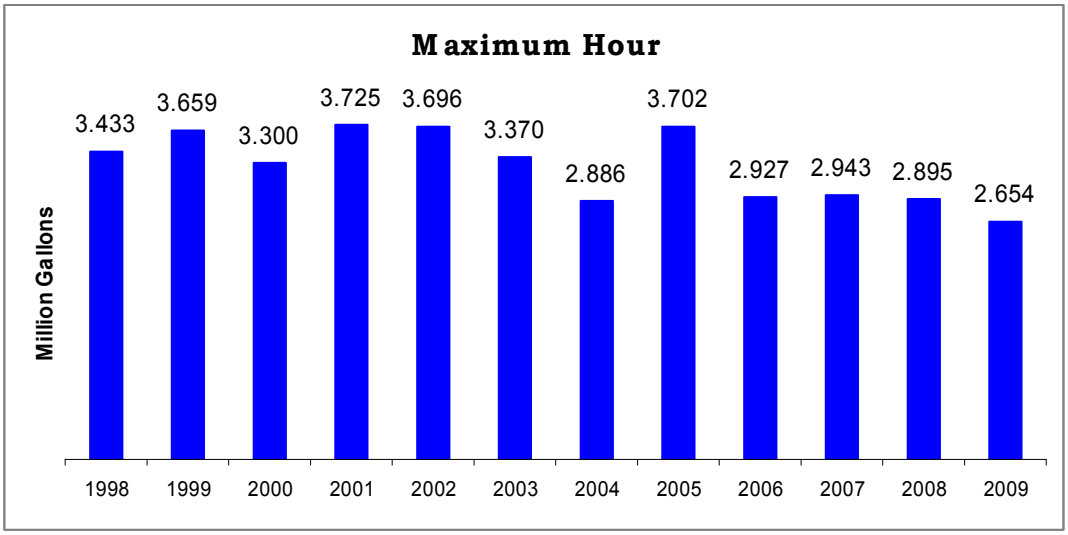
Year	Max. Day (MGD)	Max. Hour (MGD)	Equivalent Daily Rate (MGD)
1998	74.026	3.433	82.392
1999	80.375	3.659	87.816
2000	69.940	3.300	79.200
2001	75.797	3.725	89.400
2002	83.255	3.696	88.704
2003	72.908	3.370	80.880
2004	60.395	2.886	69.264
2005	80.381	3.702	88.848
2006	65.961	2.927	70.248
2007	65.997	2.943	70.632
2008	57.478	2.895	69.480
2009	58.940	2.654	63.696

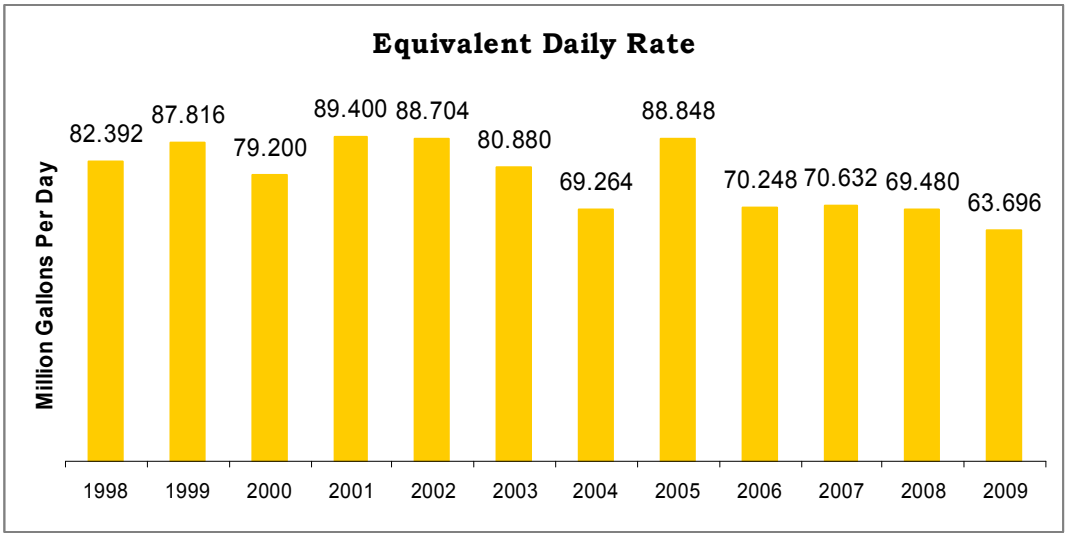
Historical Maximum Day Pumpage: July 7, 1989 @ 95.154 MG

Maximum Pumpage to Distribution

Pumping







Maximum Pumpage and Demand Days in MGD

Pumping

	Evanston Water Plant		City of Evanston		Village of Skokie		Northwest Water Comm.	
Calendar Year	*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*
2009	August 14th 58.940	August 14th 58.668	August 13th 13.992	August14th 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
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

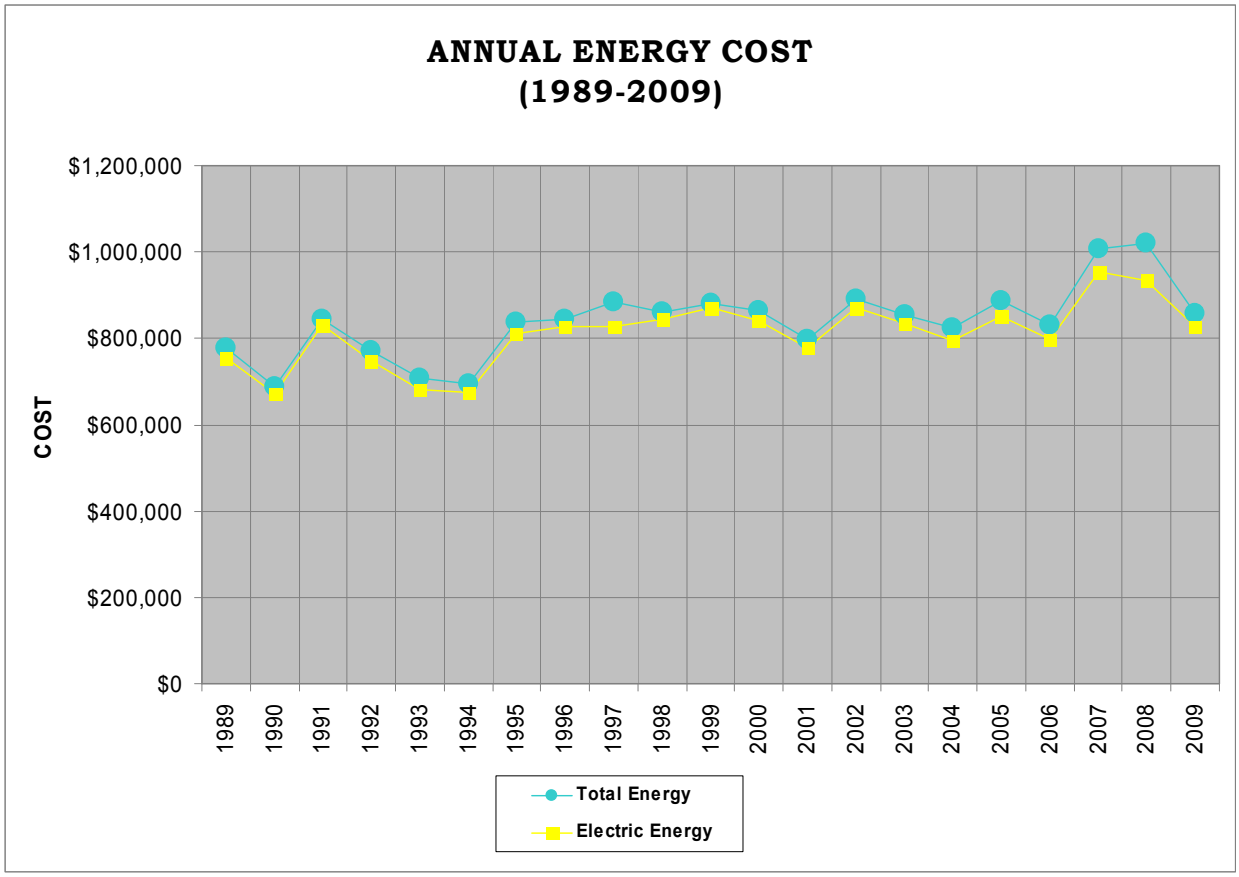
Year	Therms	Total Cost	Average Cost/Therm
2009	37,203	$28,274	$0.76
2008	41,795	$54,751	$1.31
2007	43,324	$50,284	$1.16
2006	27,938	$33,381	$1.19
2005	28,646	$37,877	$1.32

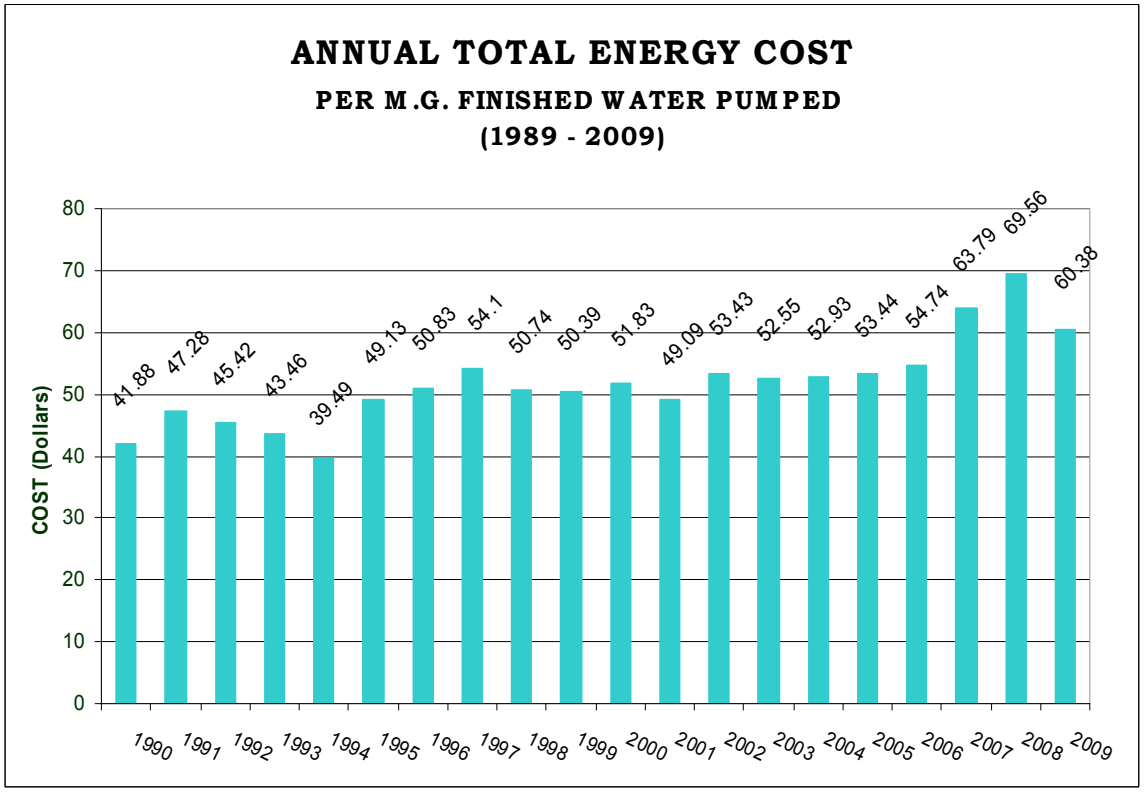
Total Energy Cost (Electric & Gas)

Year	High Lift	Low Lift	Plant Use	Total
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

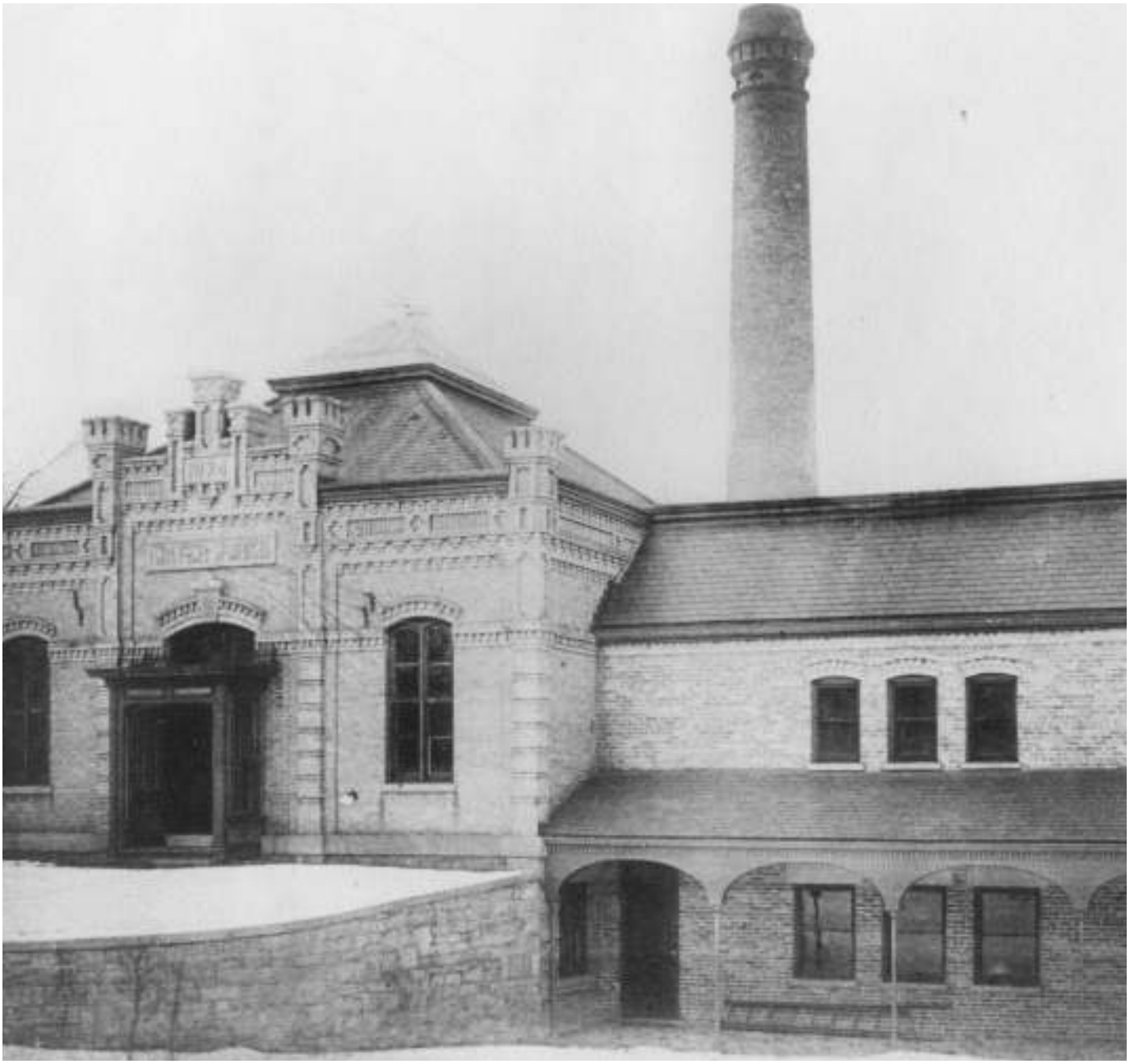
Total Energy Cost Per Million Gallons of Finished Water Pumped

2009	$60.38
2008	$69.56
2007	$63.79
2006	$54.74
2005	$53.44


ANNUAL ENERGY COST
(1989-2009)
COST
$1,200,000
$1,000,000
$800,000
$600,000
$400,000
$200,000
$0
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Total Energy
Electric Energy

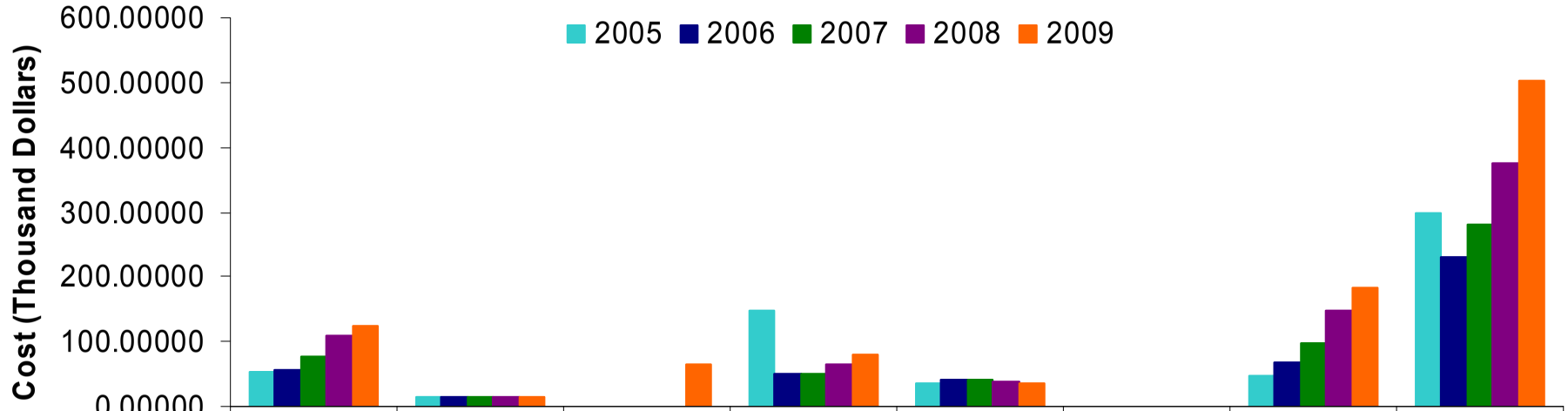

ANNUAL TOTAL ENERGY COST
PER M.G. FINISHED WATER PUMPED
(1989 - 2009)
COST (Dollars)
80
70
60
50
40
30
20
10
0
41.88
47.28
45.42
43.46
39.49
49.13
50.83
54.1
50.74
50.39
51.83
49.09
53.43
52.55
52.93
53.44
54.74
63.79
69.56
60.38
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009

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 as a water user.

ANNUAL CHEMICAL COST
(2005-2009)



	Alum	Polymer	Alumer	Phosphate	Chlorine	Carbon	Fluoride	Total Cost
2005	52.34941	15.10447	0	148.13926	34.32183	0	47.81297	297.72794
2006	56.98627	15.65215	0	49.3391	41.98367	0	67.80131	231.76250
2007	77.88381	14.91460	0	51.0948	40.20074	0	96.93885	281.03280
2008	109.18630	15.44933	0	63.69111	38.42265	0	148.09825	374.84764
2009	124.16072	14.85000	66.1164	79.12384	35.00112	0	183.9849	503.23698

Chemical Treatment

Filtration

	Cost Per Unit	Pounds Per Year	Avg. Daily	Max. Day	Min. Day	Total Cost	Cost Per M.G. Treated
Aluminum Sulfate		-	-	-	-	-	-
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
2005	$117.91 / dry ton	879,822	52.2	92.3	27.5	$ 52,349.41	$ 3.08
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							
2009	$367.00 / ton	172,880	11.9	17.6	7.3	$ 31,766.70	$ 2.20
2008	$420.00 / ton	182,965	138.2	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
2005	$412.00 / ton	223,595	13.0	16.9	9.6	$ 34,321.83	$ 2.02
Activated Carbon**							
2009	0	0	0	0	0	$ -	$ -
2008	0	0	0	0	0	$ -	$ -
2007	0	0	0	0	0	$ -	$ -
2006	0	0	0	0	0	$ -	$ -
2005	0	0	0	0	0	$ -	$ -
Hydrofluosilic Acid (Fluoride)							
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
2005	$139.00 / ton	664,069	39.1	42.2	32.0	$ 47,812.97	$ 2.81
Polymer							
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
2005	$500.00 / ton	56,998	3.3	6.7	0.0	$ 15,104.47	$ 0.89
Post Treatment Phosphate							
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	12.2	$ 51,094.80	$ 3.17
2006	$2.70 / gallon	210,148	13.8	16	11.1	$ 49,339.10	$ 3.19
2005	$5.10 / gallon	222,693	13.4	15.1	11.2	$ 148,139.26	$ 8.70

*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 five years we have not experienced problems with taste and odor, therefore we have not had to feed carbon.

Filter Operations

Filtration

Filter Run

Year	Average Hours / Run / Filter		Total Hours / Year	
	3 MGD	6 MGD	3 MGD	6 MGD
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
2000	254.3	165.9	105,108	90,300
1999	220.3	158.5	100,344	105,906

Filter Washes

Year	Total / Year		Maximum Number in One Day	
	3 MGD	6 MGD	3 MGD	6 MGD
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
2000	413	573	6	5
1999	494	733	7	9

Wash Water

Year	Total M.G. Used	Avg. Daily %	Max. Daily
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
2000	130.513	0.75	2.48
1999	165.339	0.92	4.45

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
2009	965	2	0
2008	992	2	0
2007	969	1	0

Additional Bacteriological Samples analyzed for the Village of Skokie

Year	Number Sampled
2009	918
2008	927
2007	933

Raw Water			*Colony Count*	
Year		Number Sampled	Average	Maximum
2009	730	(Twice Daily)	59	>200
2008	730	(Twice Daily)	46	>200
2007	732	(Twice Daily)	44	>200
2006	730	(Twice Daily)	38	>200
2005	730	(Twice Daily)	41	>200

After Primary Treatment			*Colony Count*	
Year		Number Sampled	Average	Maximum
2009	730	(Twice Daily)	0	0
2008	732	(Twice Daily)	0	0
2007	732	(Twice Daily)	0	0
2006	730	(Twice Daily)	0	0
2005	730	(Twice Daily)	0	0

Plant Tap A.M. and P.M. Samples			*Colony Count*	
Year		Number Sampled	Average	Maximum
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
2005	1460	(4 times Daily)	0	0

Taste & Odor, Turbidity, Temperature and Fluoride

Report of Water Quality Control Laboratory

Taste & Odor

Year	Number of Tests
2009	2190
2008	2190
2007	2196
2006	2190
2005	2172

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.

	Raw Water			After Primary Treatment			Plant Tap		
Year	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.
2009	10.1	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
2005	7.01	61.50	0.38	0.95	3.00	0.29	0.05	0.25	0.01

Temperature

Year	Average	Maximum	Minimum
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
2005	10.9°c/51.6°F	27.0°c/80.6°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

	Plant Tap			Distribution		
Year	Avg.	Max.	Min.	Avg.	Max.	Min.
2009	0.98	1.11	0.9	0.98	1.09	0.9
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
2005	0.96	1.12	0.90	0.97	1.12	0.90

Chlorine Residual (in ppm)

Report of Water Quality Control Laboratory

Filter Influent

	Free Residual			Total Residual		
Year	Avg.	Max.	Min.	Avg.	Max.	Min.
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
2005	0.88	1.13	0.64	1.04	1.31	0.10

Filter Effluent

	Free Residual			Total Residual		
Year	Avg.	Max.	Min.	Avg.	Max.	Min.
2009	0.5	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
2005	0.75	0.97	0.53	0.91	1.22	0.70

Plant Tap

	Free Residual			Total Residual		
Year	Avg.	Max.	Min.	Avg.	Max.	Min.
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
2005	0.74	0.91	0.56	0.90	1.10	0.68

Distribution Tap

	Free Residual			Total Residual		
Year	Avg.	Max.	Min.	Avg.	Max.	Min.
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
2005	0.52	1.00	0.11	0.69	1.21	0.23

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

		Raw Water			Plant Tap		
Year	Number of Tests	Avg.	Max.	Min.	Avg.	Max.	Min.
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
2005	730	8.20	8.60	7.90	7.60	7.80	7.30

Alkalinity (parts per million)

		Raw Water			Plant Tap		
Year	Number of Tests	Avg.	Max.	Min.	Avg.	Max.	Min.
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
2005	730	107	118	90	100	113	85

Hardness (parts per million as $CaCo_3$)

		Raw Water			Finished Water		
Year	Number of Tests	Avg.	Max.	Min.	Avg.	Max.	Min.
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
2005	730	131	152	120	129	154	116

Evanston 2009 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	0.14	Soil runoff
Fluoride (ppm)	4	4	1.0	0.90	1.20	Fluoride is added to promote dental health.
Sodium (ppm)	NA	NA	8	7.7	7.7	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	2	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	15.9	39.7	By-product of drinking water chlorination
Total Haloacetic Acids (ppb)	NA	60	11.0	9.0	14.3	By-product of drinking water chlorination
Chlorine	4 MRLDG	4 MRDL	0.4	0.3898	0.4786	Water additive used to control microbes

2009 Water Quality Data- Evanston

Non- Detected Contaminants

	Maximum Contaminant Level Goal	Maximum Contaminant Level	Underwriter's Laboratories Minimum Reporting Level	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
NITRATE AS N(NO3)	10	10	5	nd
NITRITE (AS NITROGEN) (ppm)	1	1	0.5	nd
Synthetic Organic Contaminants				
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
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	0	0.2	0.02	nd

Dibromochloropropane				
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-TRICHLOROBENZENE (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-DICHLOROBENZENE (ppb)	600	600	0.5	nd
P-DICHLOROBENZENE (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
MONOCHLOROBENZENE (ppb)same as CHLOROBENZENE	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/HAAs				
MONOCHLORACETIC ACID (ppb)	70	70	2.0	nd
MONOBROMOACETIC 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
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-propylsamine (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

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. 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 ppm 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 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.

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 $CaCO_3$/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).

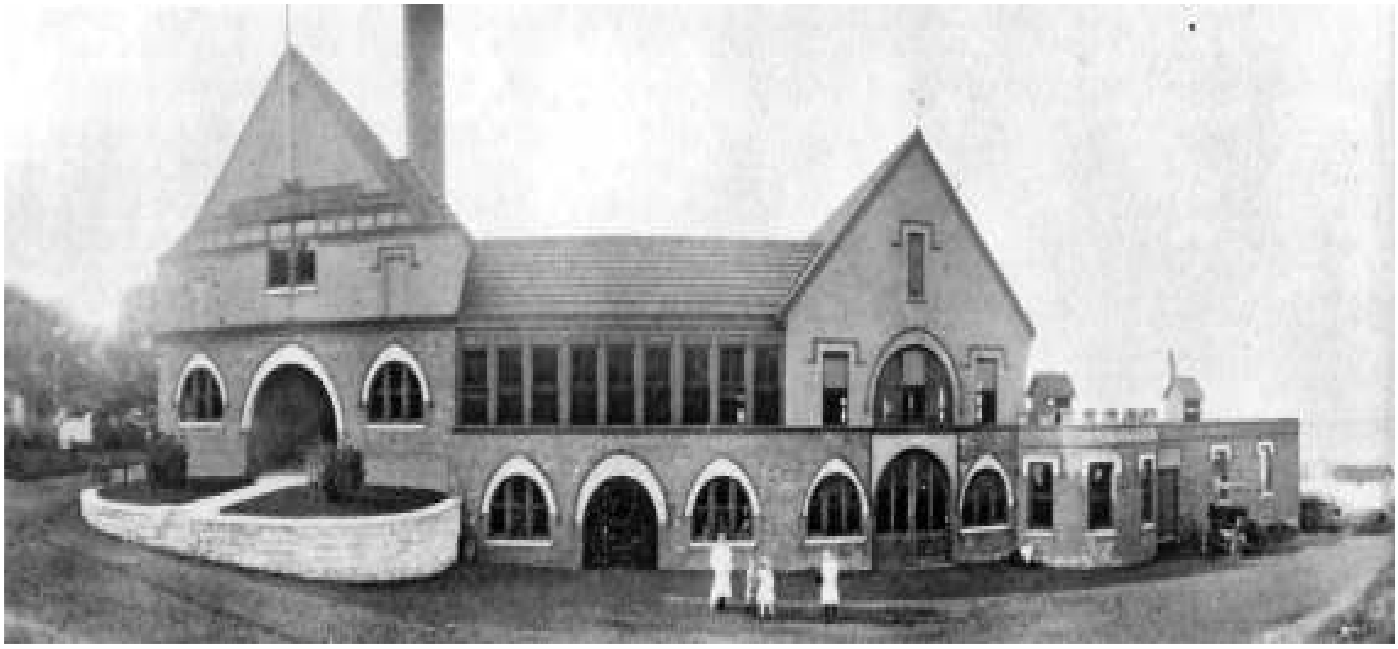
Sodium – There is not a state or federal MCL for sodium. Sodium levels below 20 mg/l (ppm) are not considered to be a health issue.

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 well as verifying the effectiveness of the filtration and disinfection processes.

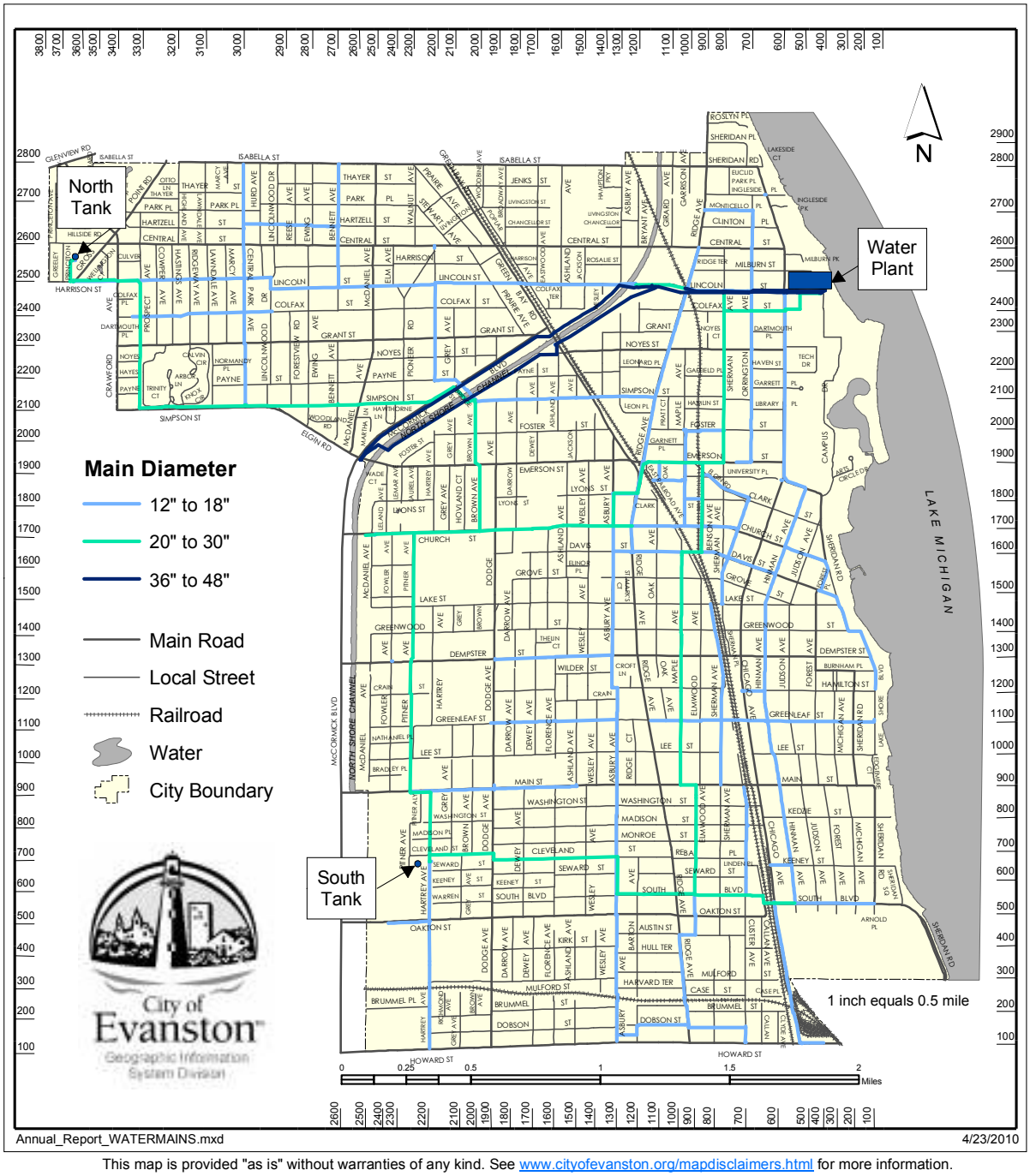
TOC - The Evanston Water Supply monitored the percentage of Total Organic Carbon (TOC) removal quarterly and met all TOC removal requirements set by the IEPA.

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 per 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 (2009)



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Fire Hydrants

Distribution System

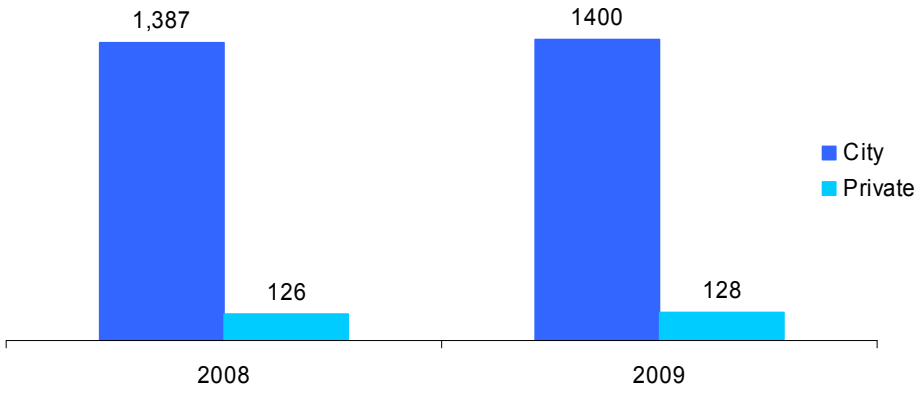
Hydrants Tested for Proper Operation	2008	**2009**
Fire Department	1,330	1,630
Water Department	57	84

System Improvements		2008	**2009**	
In-House *Hydrants*	Count	Average Cost	**Count**	**Average Cost**
Installed (new)*	11	$4,844.09	6	$17,540.77
Replaced**	19	$3,940.96	18	$4,951.72
Repaired	33	$313.69	119	$134.03

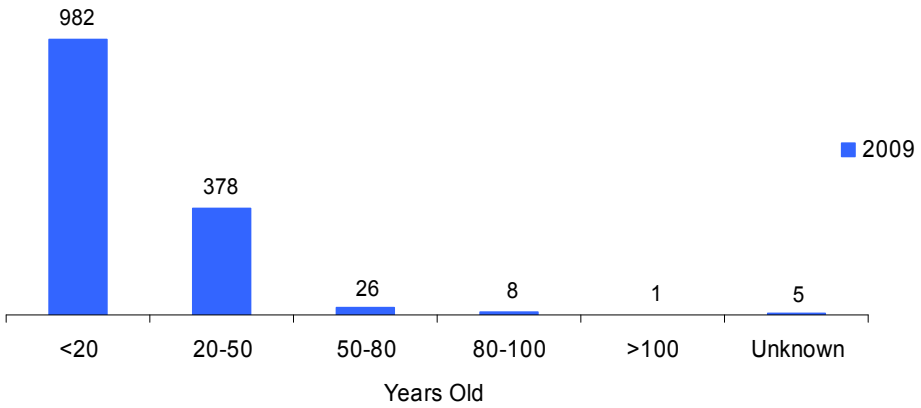
*In 2008, 8 hydrants were installed by contractor.

**In 2008, 13 hydrants were replaced by contractor.

Number of Fire Hydrants by Responsibility



Age of City Fire Hydrants



Valves

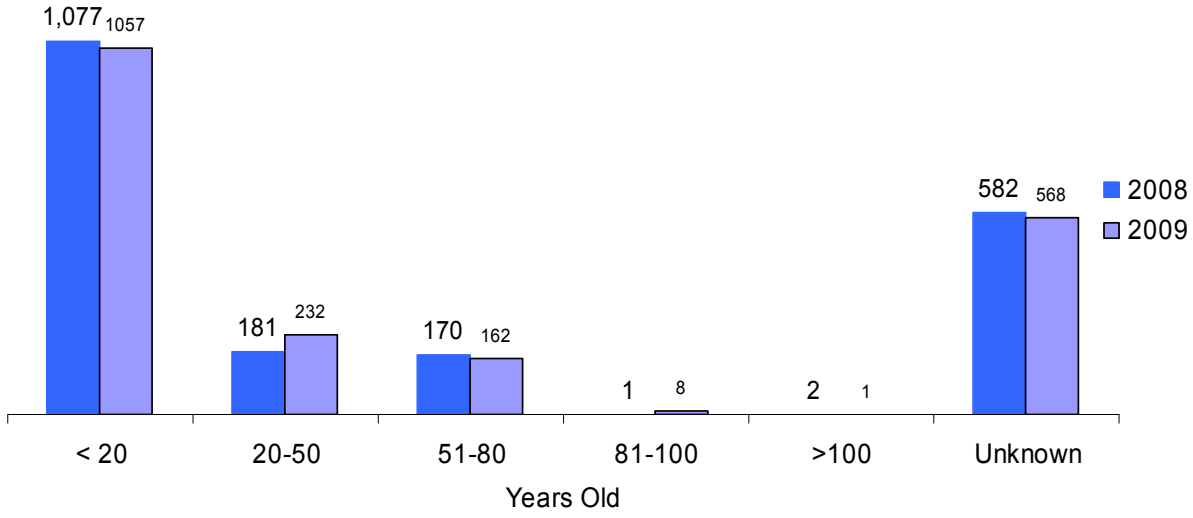
Distribution System

Valves Turned for Proper Operation	2008	**2009**
In-House	267	254
Contractor	488	n/a

System Improvements	2008		**2009**	
In-House *Valves*	Count	Average Cost	**Count**	**Average Cost**
Installed (new)	11	$2,123.67	14	$2,899.34
Replaced	20	$3,549.10	20	$3,288.70
Repaired	19	$1,447.85	21	$551.59

Number of Distribution Valves by Size	2008	**2009**
3"	1	1
4"	30	34
6"	1,053	1050
8"	433	435
10"	178	183
12"	205	211
14"	2	2
16"	48	49
18"	4	4
20"	2	2
24"	30	30
30"	11	11
36"	12	12
42"	2	2
48"	2	2
Total	*2,013*	***2,028***

Age of Distribution System Valves



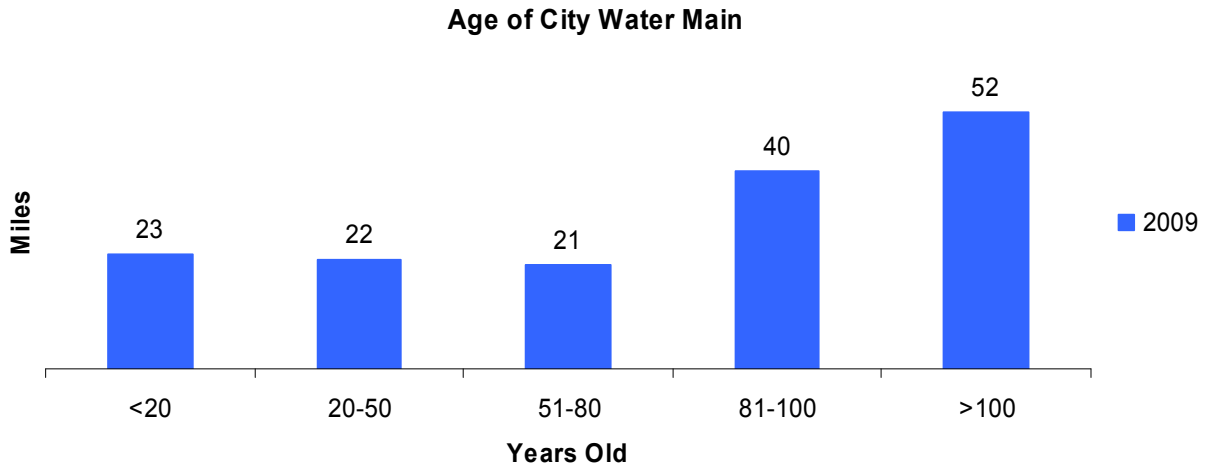
Water Mains

Distribution System

Water Main Installed In-House	2008	**2009**
Feet Installed	-	7
Average Cost (per foot)	-	$1,197.17

Water Main	2008		**2009**	
Repaired In-House	Count	Average Cost	**Count**	**Average Cost**
Blow-Out	23	$3,021.08	17	$4,593.58
Shear Break	32	$2,731.71	10	$5,246.96
Damage	1	$1,829.02	-	-
Total	*56*	*$7,581.81*	27	$9,840.54

Length of	2008		**2009**	
Water Main by Diameter	Feet	Miles	**Feet**	**Miles**
3"	784	0.15	782	0.15
4"	12,554	2.38	12,554	2.38
6"	420,875	80.36	420,875	79.71
8"	153,428	24.84	153,428	29.06
10"	65,652	12.13	65,652	12.43
12"	84,764	15.78	84,764	16.05
14"	1,948	0.37	1,950	0.37
16"	33,544	6.35	33,550	6.35
18"	4,386	0.83	4,389	0.83
20"	2,960	0.56	2,960	0.56
24"	43,549	8.25	43,579	8.25
30"	8,933	1.69	8,927	1.69
36"	17,327	3.28	17,355	3.29
42"	186	0.04	186	0.04
48"	3,571	0.68	3,620	0.69
Total	*854,461*	*161.83*	*854,571*	*161.85*



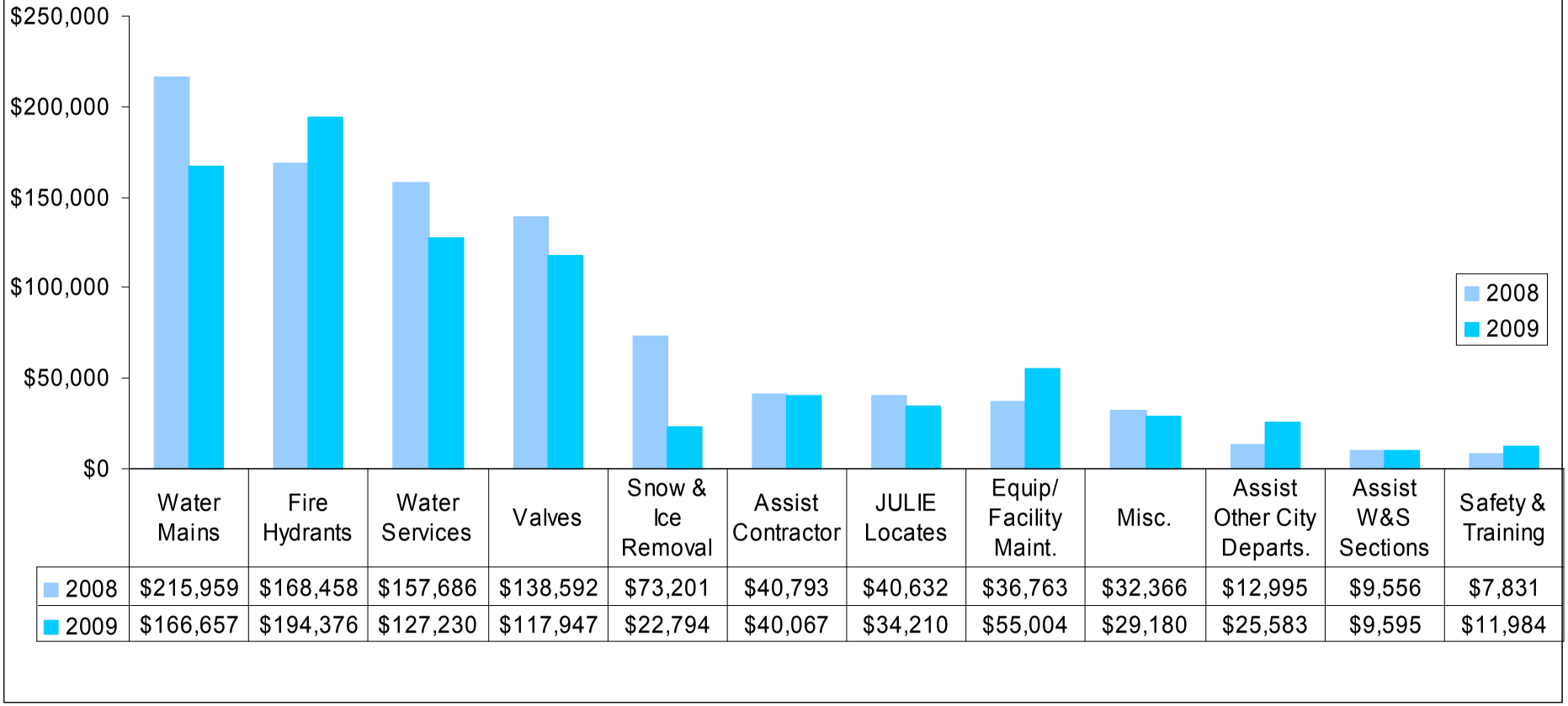
Water Services

Distribution System

2009 Total Number of Water Service Connections - 15,220

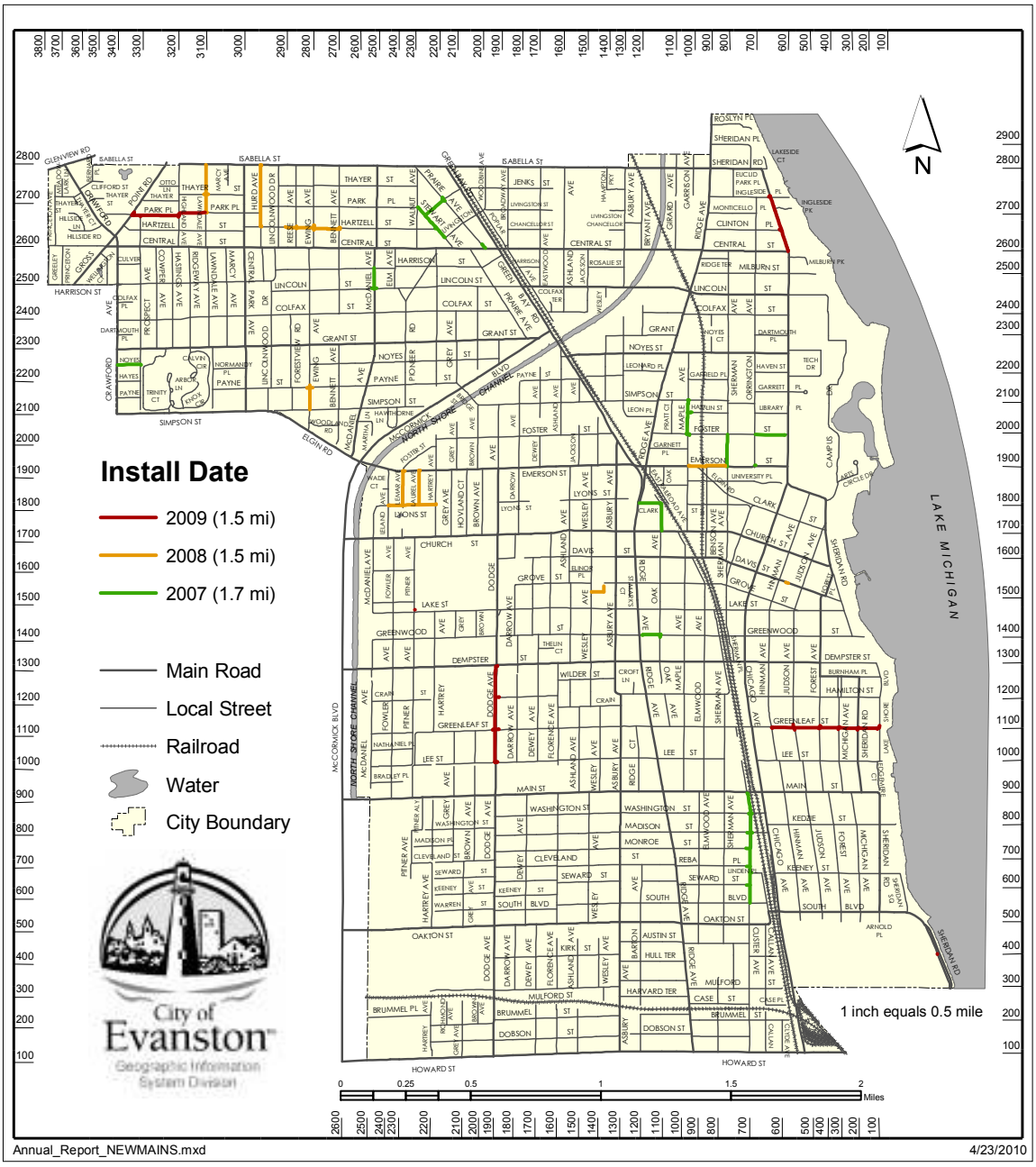
System Improvements	2008		**2009**	
In-House *Water Services*	Count	Average Cost	**Count**	**Average Cost**
Installed (new)	**59**	**$674.22**	**48**	**$495.74**
Repaired	**25**	**$1,739.02**	**26**	**$2,378.46**

2009 Distribution Division - Division of Costs



	Water Mains	Fire Hydrants	Water Services	Valves	Snow & Ice Removal	Assist Contractor	JULIE Locates	Equip/ Facility Maint.	Misc.	Assist Other City Departs.	Assist W&S Sections	Safety & Training
2008	$215,959	$168,458	$157,686	$138,592	$73,201	$40,793	$40,632	$36,763	$32,366	$12,995	$9,556	$7,831
2009	$166,657	$194,376	$127,230	$117,947	$22,794	$40,067	$34,210	$55,004	$29,180	$25,583	$9,595	$11,984

DISTRIBUTION SECTION
Water Main Installed 2007-2009



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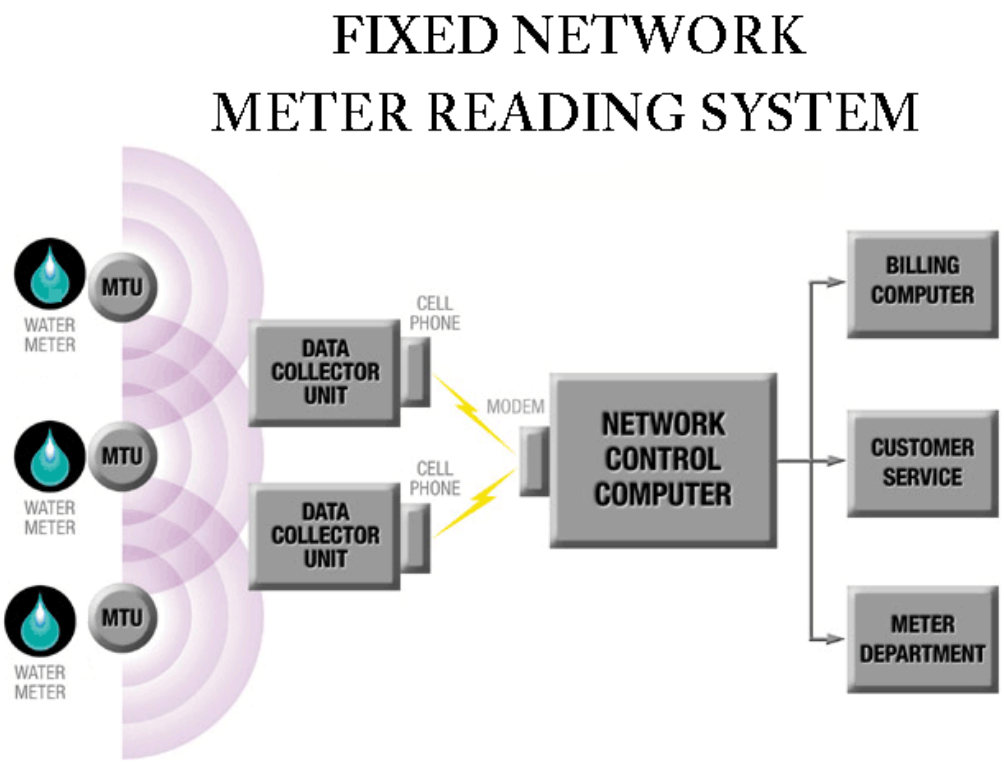
Meter Section

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 million gallons per day. In 1950 the steam plant was shut down, giving away entirely to electric pumps with two backup gasoline engines.



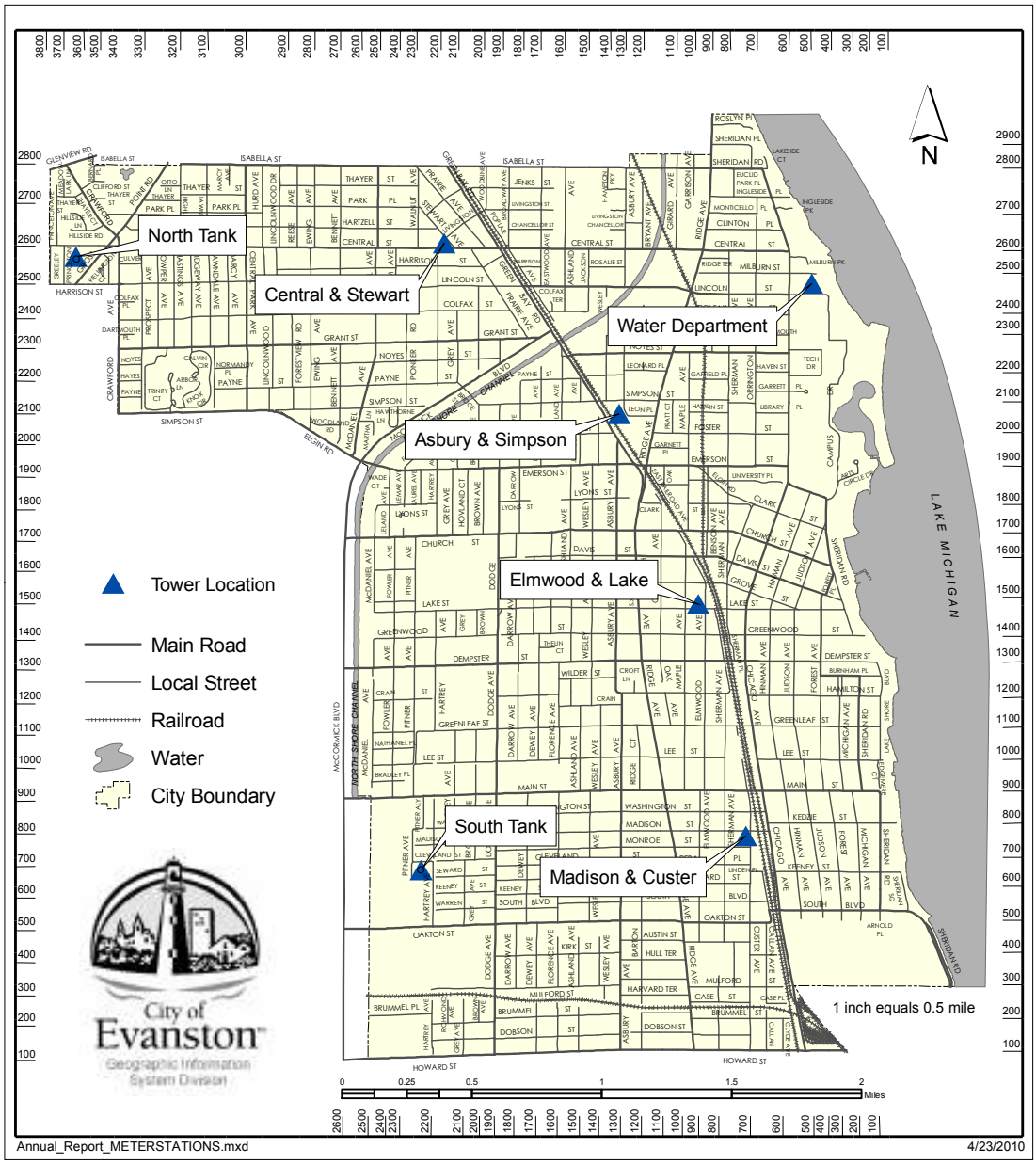
Here's how it works:

- 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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2009 Water Rate
To Evanston Customer

Water is billed bi-monthly in hundreds of Cubic Feet.
Minimum demand charge every two months based on water meter size as follows:

Meter size	Cost
5/8" & ¾"	$5.40
1"	$10.80
1 ½"	$20.20
2"	$31.80
3"	$56.00
4"	$89.70
6"	$158.20
8"	$267.80

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

Water costs $1.52 per 100 cubic feet (748 gallons) of usage over the minimum charge ($2.03 per 1000 gallons).

2009 Water Meter Inventory by Class and Size

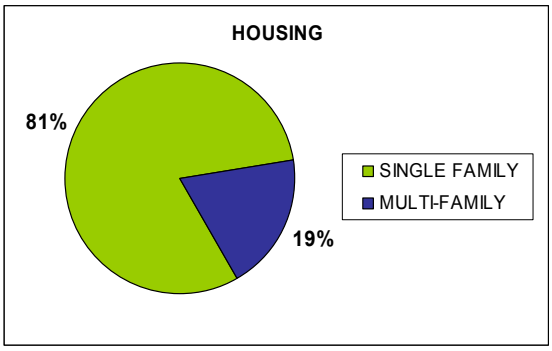
Size of Meter	Meter Style	Commercial	Industrial	School	City	Park	Multi-Family	Residential	TOTAL
8" Meter	Compound	1							1
	Turbine	2							2
6" Meter	Compound	1		1					2
	Turbine	2							2
4" Meter	Compound	11					4		15
	Turbine	5		1			1		7
3" Meter	Compound	14		1			13		28
	Turbine	11		3			6		20
2" Meter	Compound	8					1		9
	Turbine/T-10	149	7	14	11		248	4	433
1.5" Meter	T-10	86	5	4	5		101	31	232
1" Meter	T-10	196	11	3	5	1	433	370	1019
3/4" Meter	T-10	20	1				233	345	599
5/8" Meter	T-10	436	11	2	8	61	1485	9968	11971
TOTAL		**942**	**35**	**29**	**29**	**62**	**2525**	**10718**	**14340**

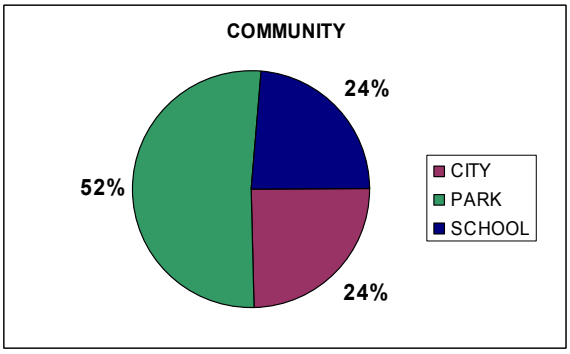
2009 Meter Services

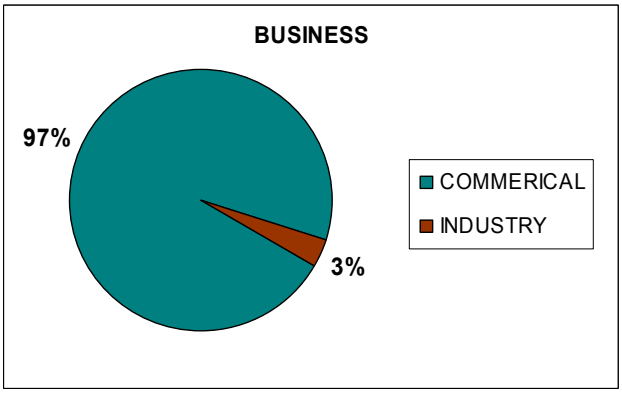
BILLED BY CATEGORY AND WATER USAGE FOR 2009

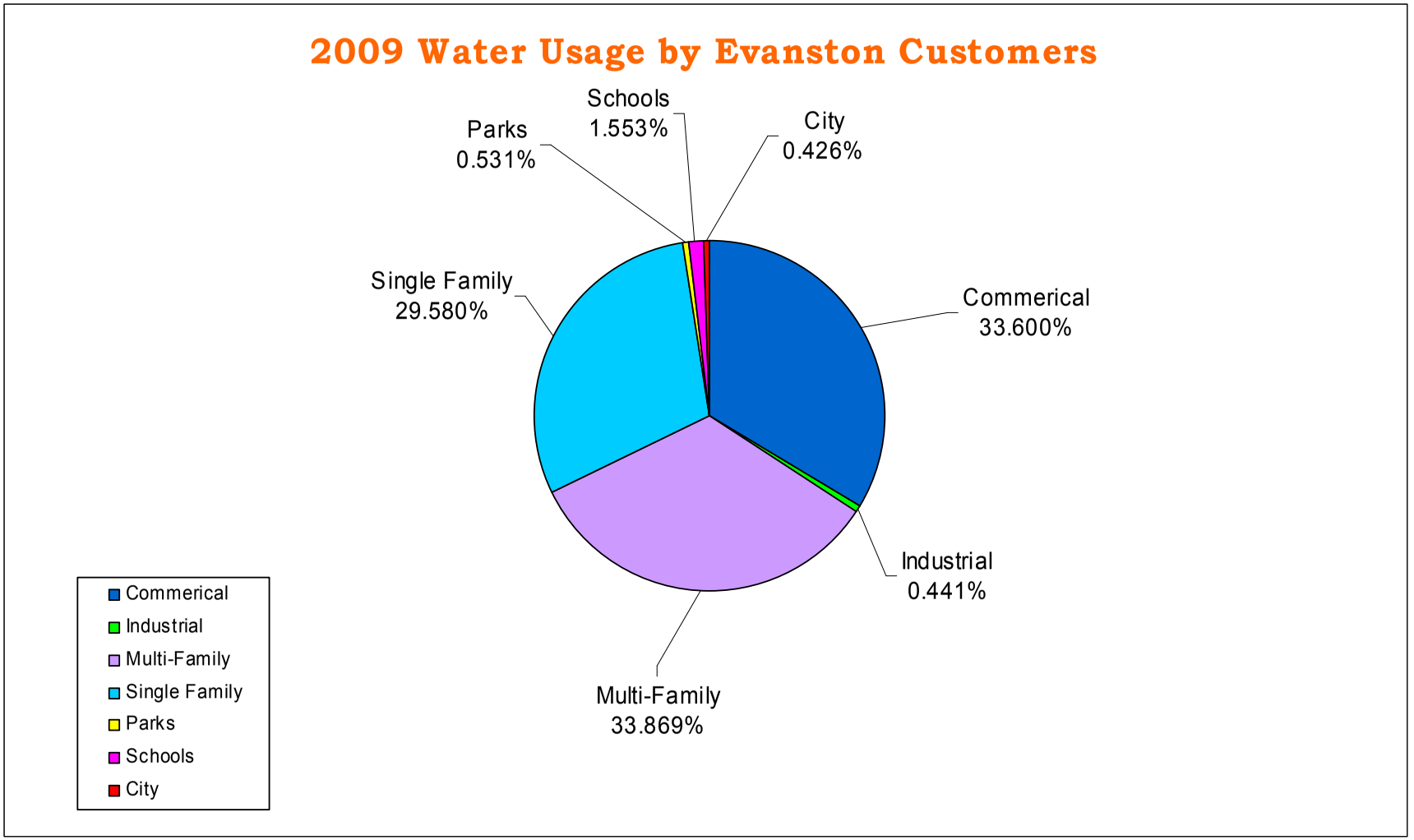
	NUMBER OF SERVICES	2009 USAGE
SINGLE FAMILY	10,713	1,012,056
MULTI-FAMILY	2,524	1,162,209
COMMERICAL	946	1,109,556
INDUSTRY	34	13,624
CITY	30	14,201
PARK	64	8,213
SCHOOL	29	46,815
TOTAL	**14,340**	**3,366,674**
		*usage in hundreds of cubic feet
FIRE SERVICES	383	(BILLED SEMI-ANNUALLY)
WATER COOLED AIR CONDITIONING	8	(BILLED ANNUALLY)

SERVICES BY CLASS CODE:





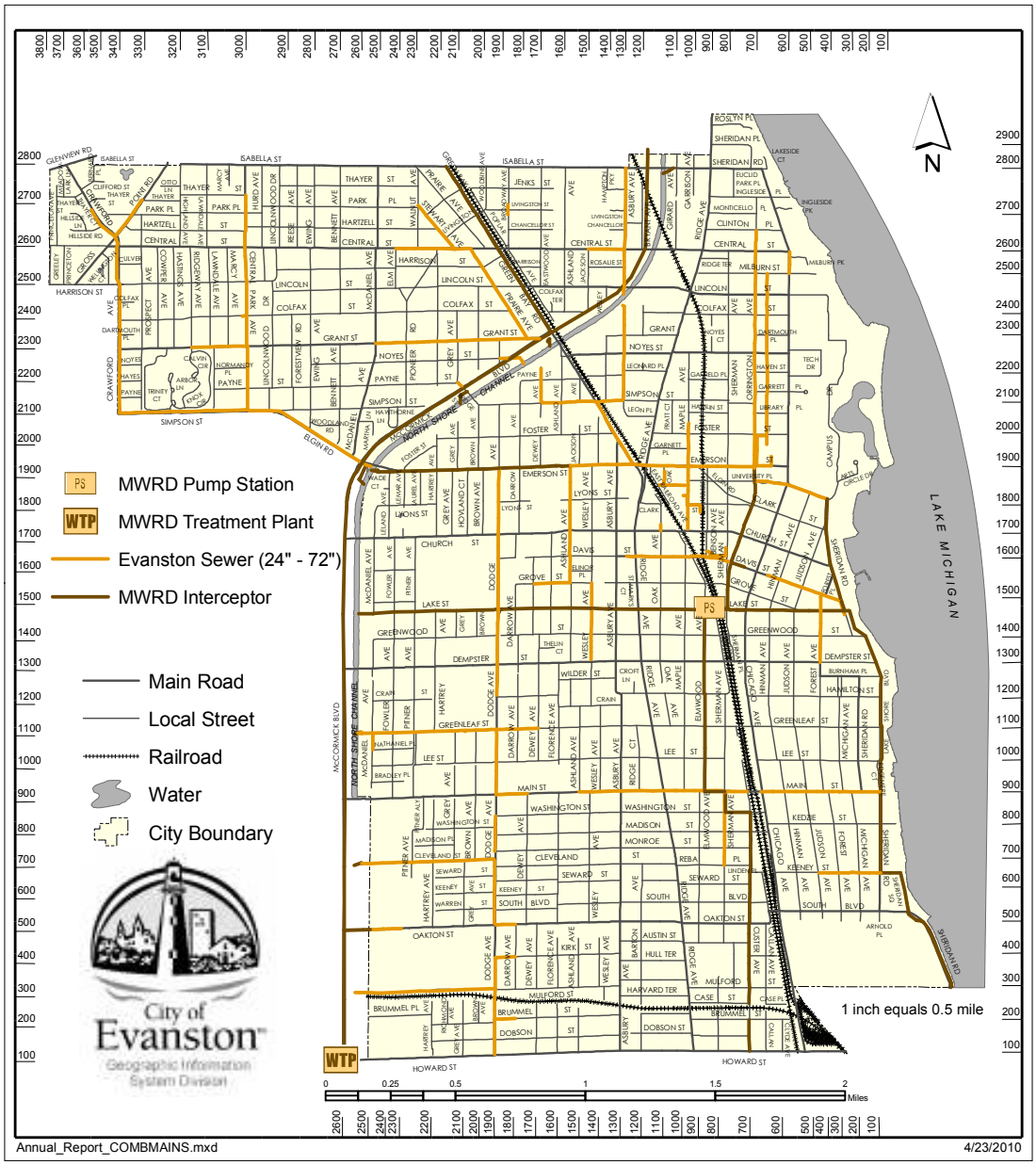



2009 Water Usage by Evanston Customers
Schools
1.553%
Parks
0.531%
City
0.426%
Single Family
29.580%
Commerical
33.600%
Industrial
0.441%
Multi-Family
33.869%
Commerical
Industrial
Multi-Family
Single Family
Parks
Schools
City

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 108 million gallons per day. 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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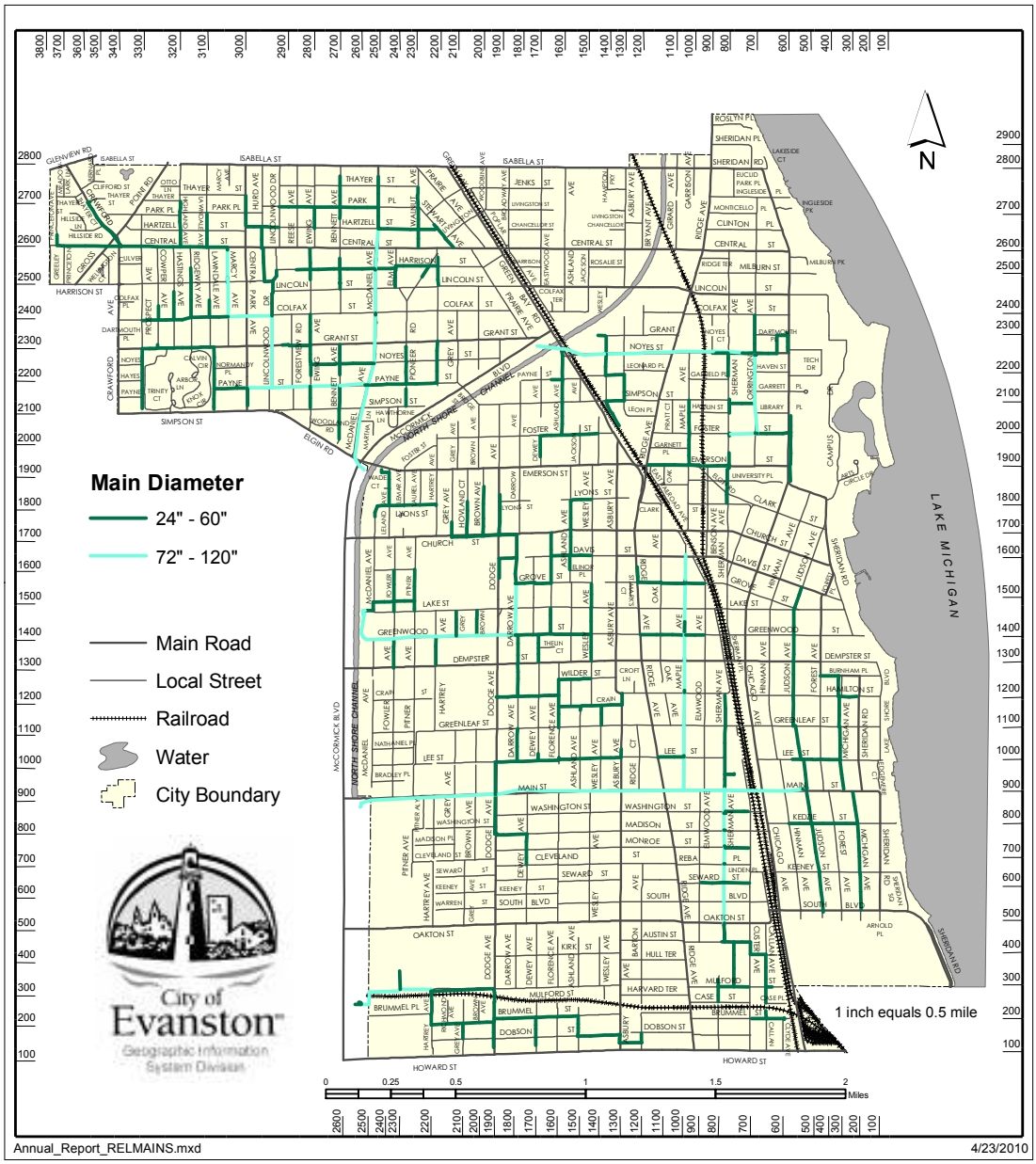
EVANSTON WATER AND SEWER DIVISION
Major Relief Sewer System



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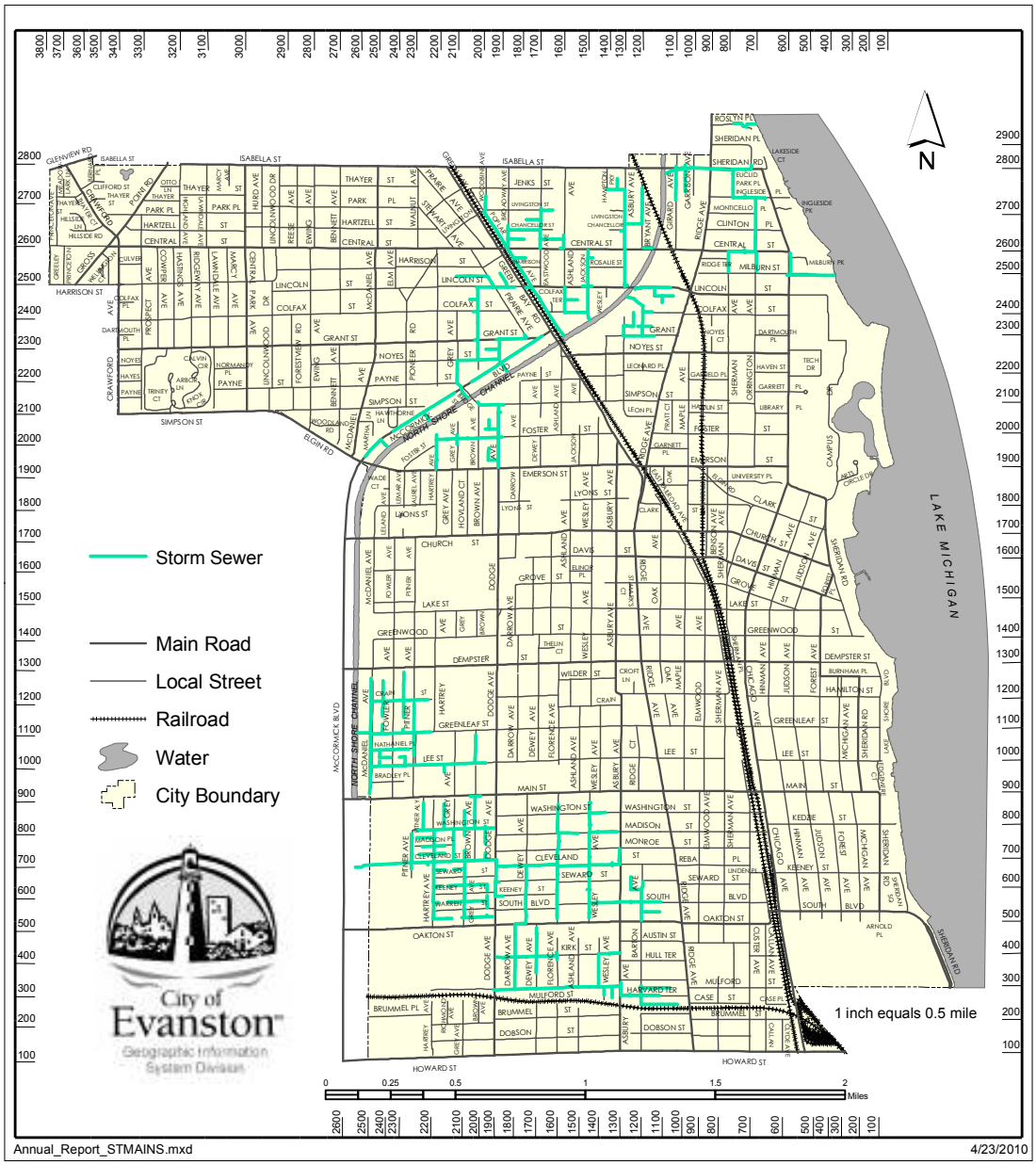
EVANSTON WATER AND SEWER DIVISION
Storm Sewer System



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Sewer Mains

Sewer

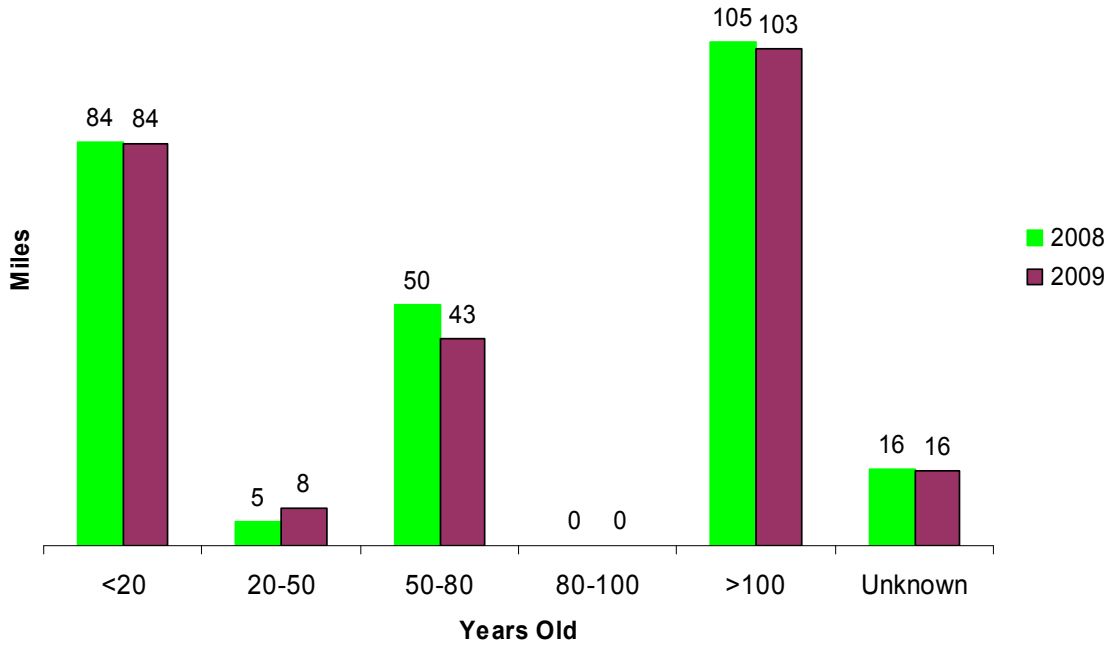
Length of Sewer Main by Type*

Sewer System Type	Feet	Miles
Combined	753,986	143.08
Relief	245,607	48.1
Storm	97,202	18.48
Total	*1,096,795*	*209.66*

*For a detailed table of Length of Sewer Main by Type and Diameter, see following page.

System Improvements	2008		**2009**	
In-House *Sewer Main*	Count	Average Cost	**Count**	**Average Cost**
Installed (new)	28 ft.	$80.10 per ft.	**121 ft.**	**$103.26 per ft.**
Replaced	17 ft.	$17.66 per ft.	**485 ft.**	**$46.51 per ft.**
Spot Repair	4,444 ft.	$7.57 per ft.	**4,648 ft.**	**$20.62 per ft.**
Clean- Hydroflush	125,505 ft.	$1.06 per ft.	**221,676 ft.**	**$1.01 per ft.**
Clean- Root Cut	2,252 ft.	$2.37 per ft.	**9,922 ft.**	**$1.47 per ft.**
Closed Circuit TV Inspect	59,654 ft.	$0.82 per ft.	**78,806 ft.**	**$0.78 per ft.**
Inspect	34,150 ft.	$0.79 per ft.	**48,342 ft.**	**$0.99 per ft.**
Inspect (Storm)	33,394 ft.	$0.38 per ft.	**9,609 ft.**	**$0.31 per ft.**

Age of City Sewer Mains



Sewer Mains

Sewer

Length of Sewer Main	Combined		Relief		Storm		
by Type and Diameter	Feet	Miles	Feet	Miles	Feet	Miles	
6"	3,183	0.6	243	0.05	-	-	
8"	19,216	3.64	8,325	1.58	3,172	0.6	
9"	121,767	23.06	6,795	1.29	895	0.17	
10"	108,779	20.6	20,490	3.88	12,873	2.44	
12"	225,249	42.66	20,479	3.88	13,586	2.57	
14"	1,019	0.19	-	-	-	-	
15"	94,477	17.89	4,507	0.85	6,249	1.18	
16"	1,621	0.31	5,669	1.07	724	0.14	
18"	60,097	11.38	14,177	2.69	8,833	1.67	
20"	9,108	1.73	127	0.02	-	-	
21"	14,775	2.8	1,169	0.22	3,488	0.66	
22"	1,081	0.2	-	-	-	-	
24"	20,620	3.91	44,291	8.39	16,676	3.16	
27"	6,099	1.16	5,712	1.08	3,901	0.74	
30"	7,008	1.33	17,737	3.36	4,198	0.79	
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	-	-	-	-	
41"	6,700	1.27	-	-	-	-	
42"	1,029	0.19	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	0.6	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	*755,509*	*143.08*	*253,879*	*48.10*	*97,585*	*18.48*	*0*

(Miles of combined sewer installed before 1894).

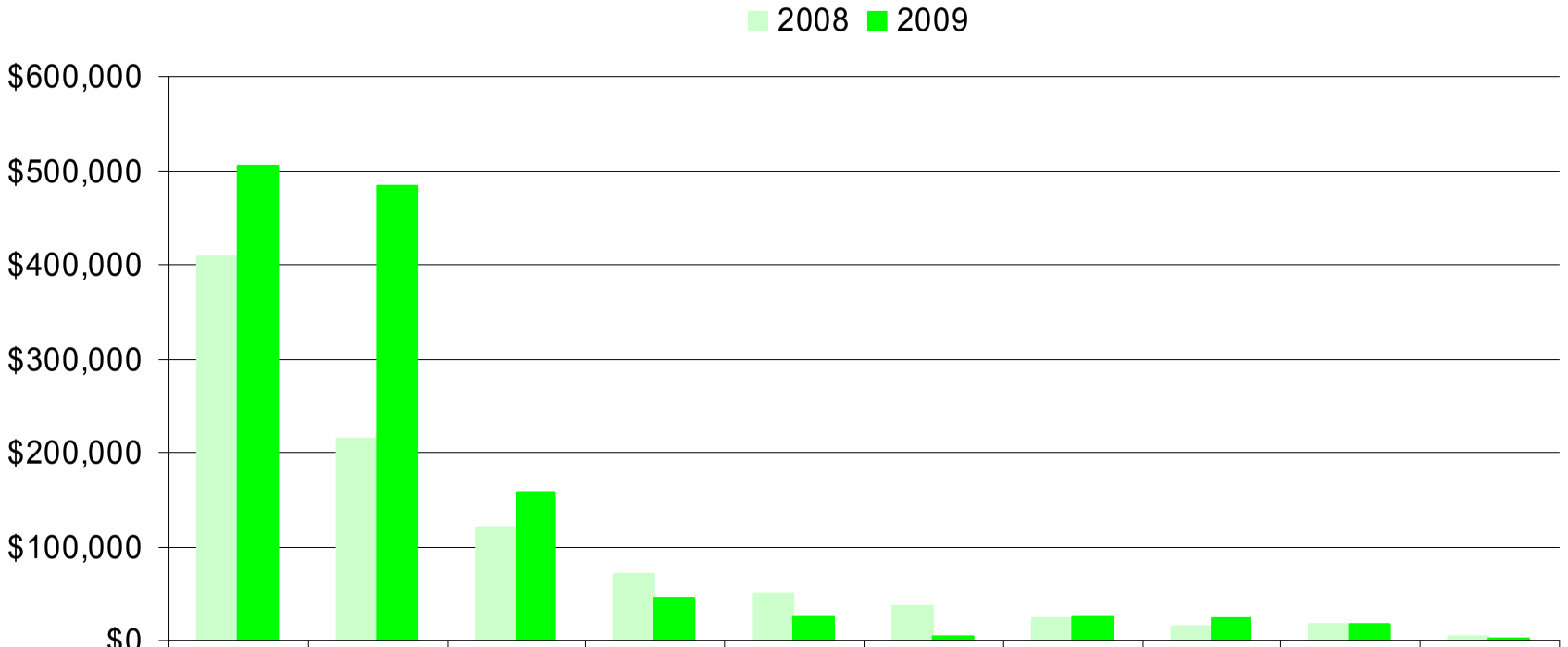
Sewer Structures

Sewer

Number of Sewer Structures	2008	2009
Manholes	5,353	5,540
Inlets	2,785	2,819
Catchbasins	6,210	6,214
Total Sewer Structures	14,348	14,573

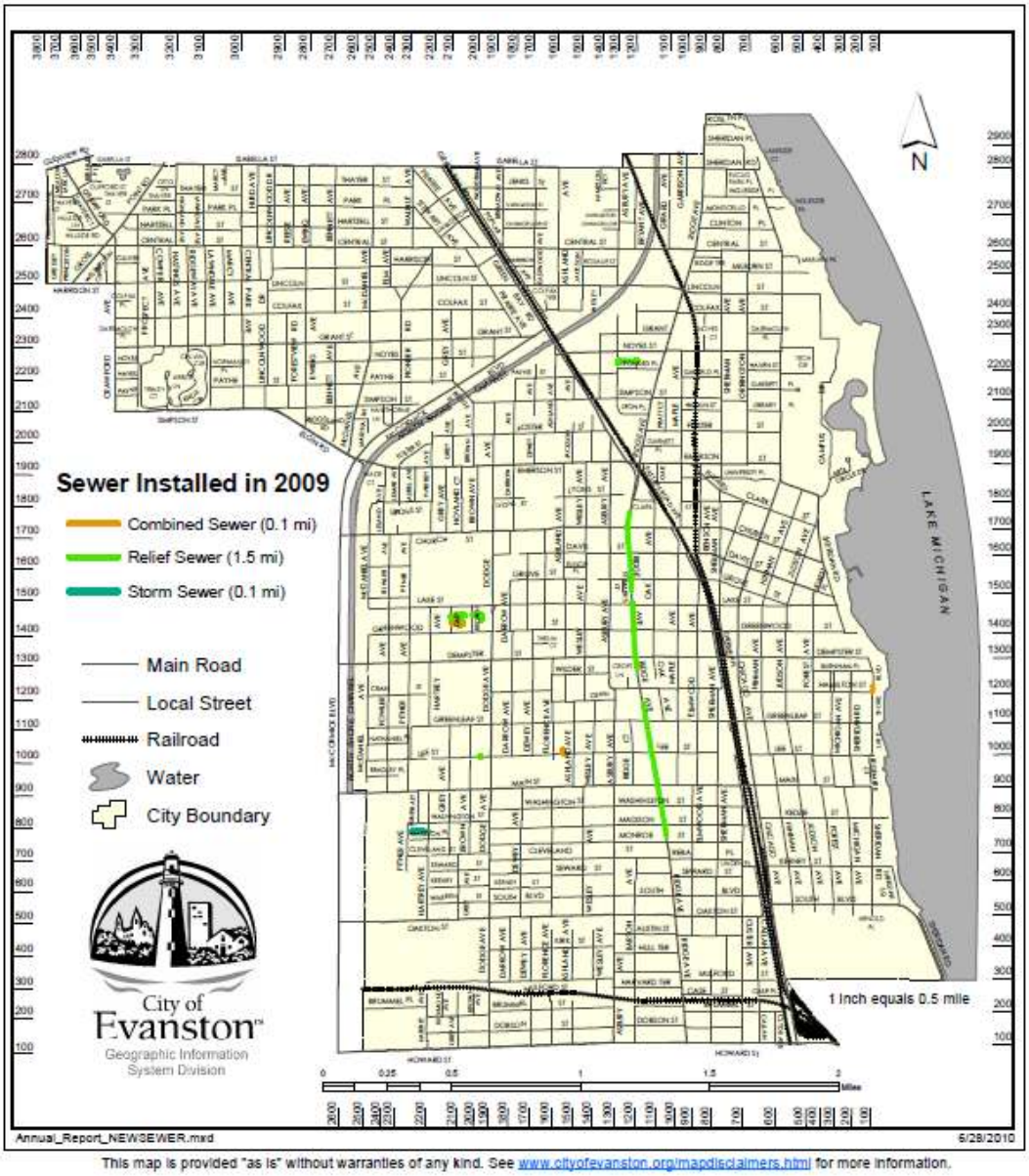
System Improvements	2008		**2009**	
In-House *Sewer Structures*	Count	Average Cost	**Count**	**Average Cost**
Installed (new)	5	$5,976.97	4	$2,255.49
Replaced	33	$2,249.79	25	$4,590.18
Repair	169	$303.30	151	$611.34
Clean	3,277	$57.42	3,157	$70.54
Inspect	164	$142.40	208	$131.22
Inspect (Storm)	734	$56.35	943	$42.75

2008 Sewer Division - Division of Costs



	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
2008	$408,271	$214,438	$119,995	$71,203	$48,743	$35,705	$23,782	$14,319	$16,234	$3,781
2009	$506,397	$484,385	$157,495	$45,462	$26,001	$3,401	$25,590	$22,687	$17,702	$2,394

SEWER SECTION
Sewer Main Installed in 2009



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