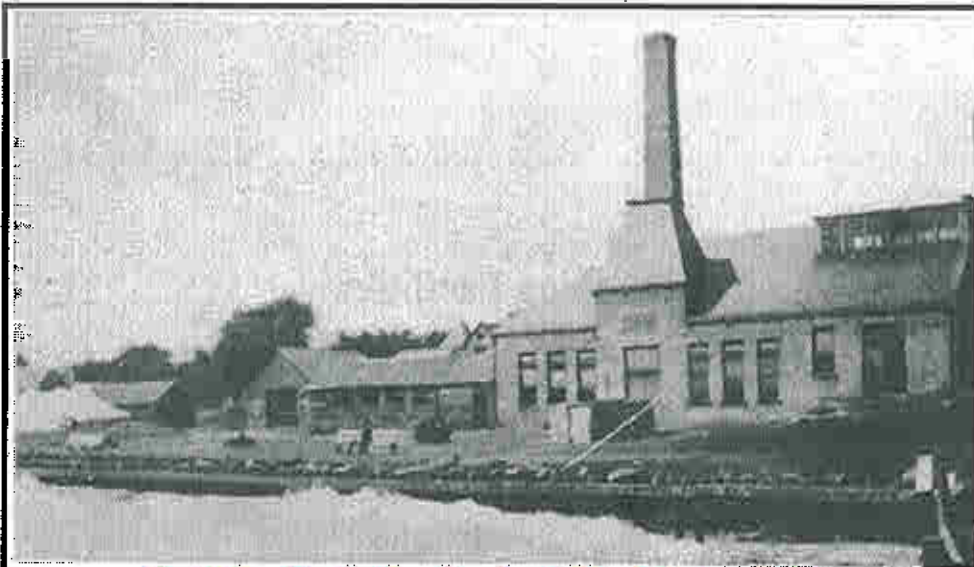


Kenosha Water Utility

Journal

1895 - 1995



First Water Plant in Kenosha - South Side of Harbor - 1895



Future Water Plant - North Side of Harbor - 1995



100 Years of
"Providing and Protecting Kenosha's
Greatest Natural Resource ..."



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Kenosha Water Utility

100 Year Journal



Foreword

Kenosha is the gateway to Wisconsin, located on the shores of Lake Michigan with a virtually unlimited supply of water. The Kenosha Water Utility provides water, sanitary sewer and engineering services for the Kenosha area. As we celebrate our Centennial and begin our second century, we reaffirm our mission of **"Providing and Protecting Kenosha's Greatest Natural Resource - Water"**.

We have prepared this journal to reflect on the great legacy left by the many dedicated leaders of Kenosha that were concerned with the need for a safe water supply and the adequate treatment of wastewater.

We wish you, our friends and customers, to know that behind the marvel of machines and materials, there were people who devoted their time, skills and energy to establish and maintain the very best in a public water system and municipal sewerage system.

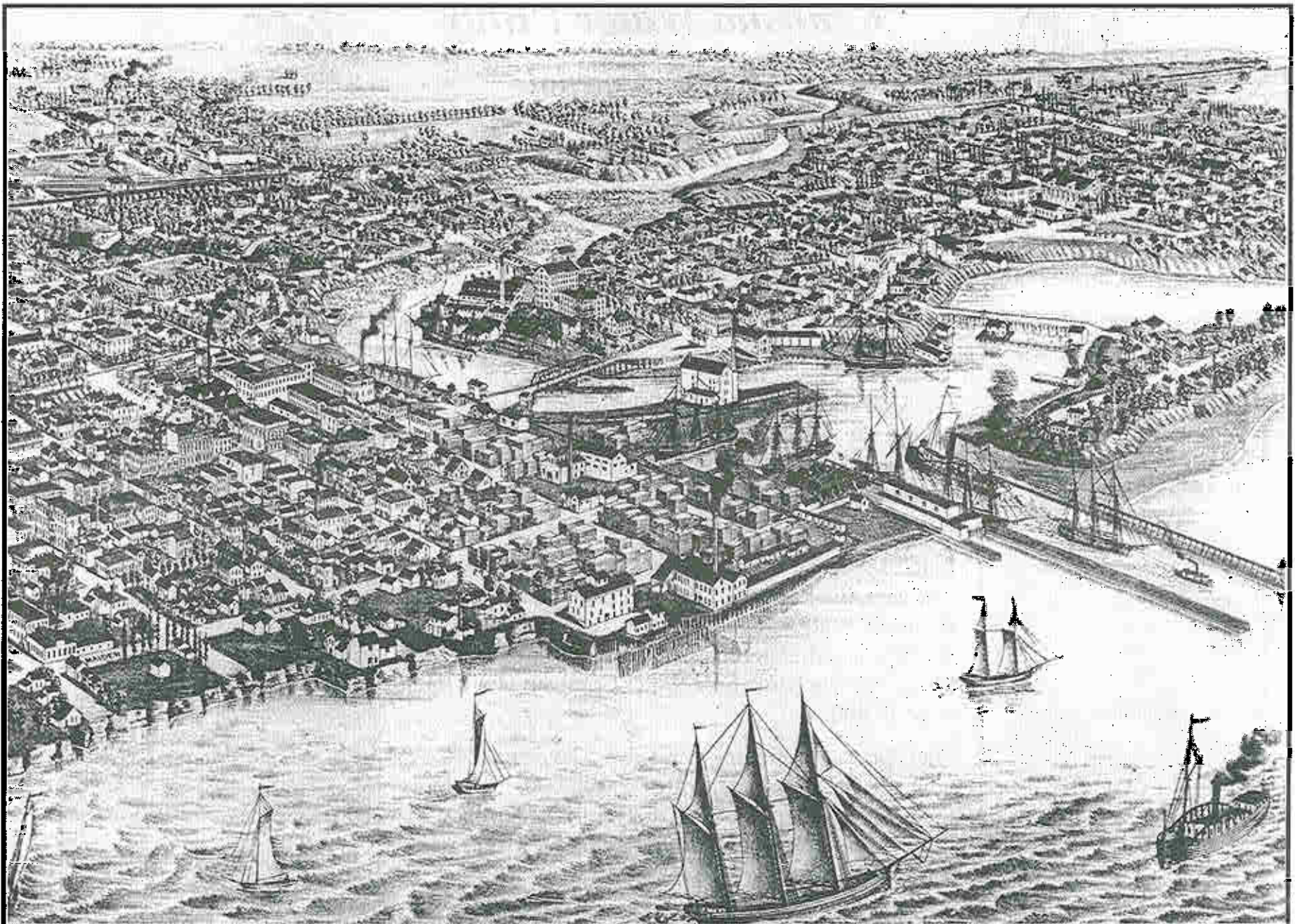
Since 1895, we have operated as a public utility. In that year, the Kenosha Common Council appointed a Board of Water Commissioners, who organized and shortly thereafter purchased the Park Water Company along with the North Side Water Company, for a total of \$137,000.

That was the beginning with only 753 customers. We now serve a population of over 100,000. We look forward to another 100 distinguished years of **"Providing and Protecting Kenosha's Greatest Natural Resource - Water"**.

Sincerely,

O. Fred Nelson





View of Kenosha - 1881

1876

◆ The Park City Water Company became the first organized public water works in the City of Kenosha. The Common Council granted them permission to construct an artesian well at the intersection of 8th Avenue and 60th Street.

1879

◆ The Park City Water Company, with Joseph V. Quarles as President and George S. Baldwin as Treasurer, contracted with Macrichie, Nichol & Company of Chicago to construct artesian water mains.

In addition, an artesian well was constructed at the intersection of Main Street (6th Avenue) and 59th Street.

1880

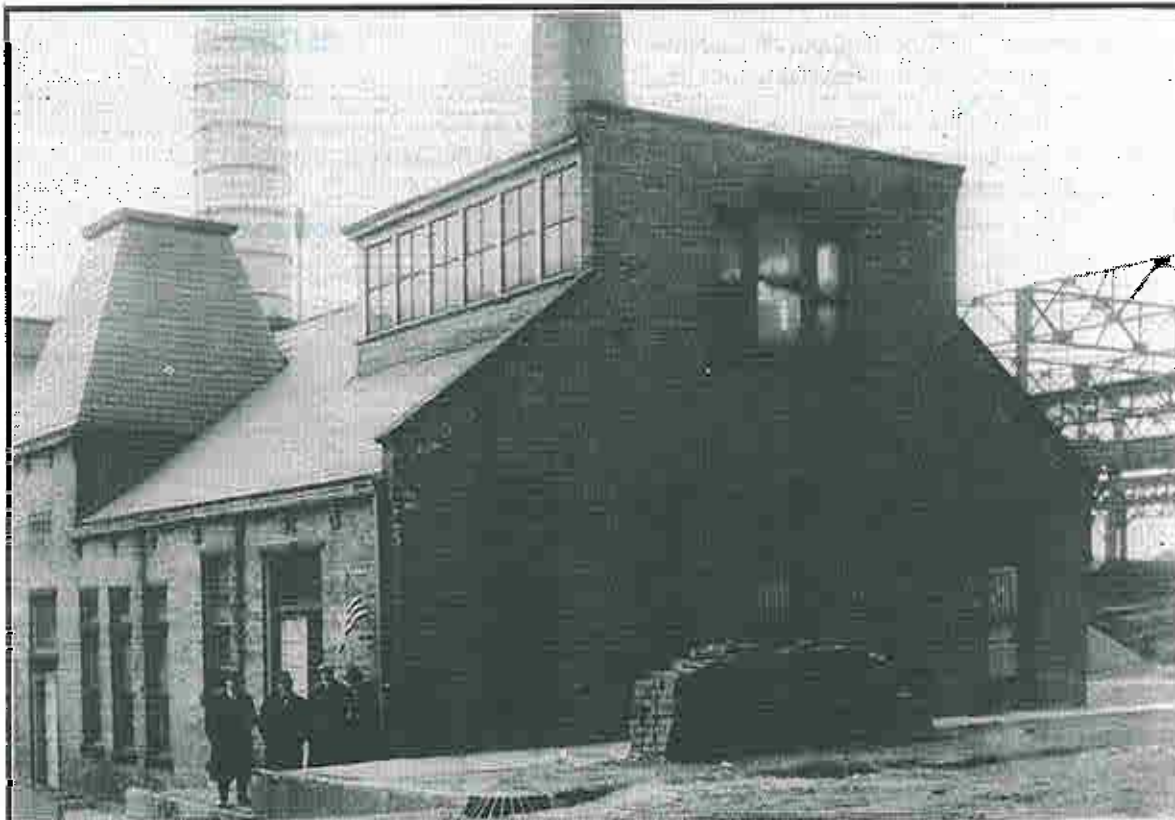
◆ The North Side Water Works was organized by N. R. Allen, Bendt, Pennoyer, Mygatt, Meyer, William Engle, and Christian Schend. Their franchise authorized them to construct mains and operate a system of water works in the territory north of Pike Creek.

1885

◆ Water reservoirs were built at the following intersections:

- 6th Avenue and 56th Street
- 6th Avenue and 59th Street
- 7th Avenue and 61st Street

These were large, covered cisterns that held hundreds of gallons of water for fighting fires. When all the water was pumped out, the bucket brigade took over.



Water Plant located on the south side of the harbor provided 4 million gallons per day - 1895

1894

◆ The City of Kenosha authorized Isaiah Newcomer to construct and maintain a system of lake water supply, including a 24" intake extending 5,000 feet into Lake Michigan on the south side of the harbor.

1895

◆ Council passed an ordinance granting the City of Kenosha the right to purchase the water systems now owned by the Park City Water Company and

the North Side Water Company. The Park City Water Company and the North Side Water Company, all of their property, franchises and interests were sold to the Kenosha Water Company, as was the deed for the power house location. This water facility was located south of the harbor on Lake Michigan.

◆ In June, the intake was being constructed by diver Frank Rann of Milwaukee. He and his specially-built boat took the 60 foot lengths of pipe from a slip in the Simmons factory yard. When the pipe was lowered into the water, the diver, dressed in rubber and heavy metal, forced one end of the pipe

inside of the other and clamped them together. The work was very costly, \$50 per day, and no more than three or four lengths of pipe could be laid in one day.

By early August, the pumps were being placed into position. By the beginning of the second week in August, the raw water well between the lake and the power house was cleaned and the pipes were connected to the intake and suction pipes. According to the Telegraph-Courier, "a public test would not be made until everything is in such working order that two men can sit down in rocking chairs there and control a water supply sufficient to drown out the biggest fire."

Mayor Farr's address to Council, August - "This meeting has been called principally for the consideration of the water works. It behooves the City to take possession of the plant at the earliest possible moment, so that we will have no intricate accounts to settle with the Water Works Company.

In order to be ready for the transfer, we ought to have a plan mapped out for the economical operation of the plant. The question will have to be decided whether the Common Council will hold the management in its own hands; or delegate to a body of commissioners some or all of the management. There are some reasons that have occurred to the chair that leads the chair to think it may be well for the council to take this burden on its shoulders.

The City has some officers whose duties are such that they could do most of the executive work. Our City Clerk with a small addition to his salary could collect and receive the rentals and keep the accounts. The Street Commissioner could attend to the tapping and labor, while the City Engineer would, naturally, from the nature of his position, be Superintendent without any increase of salary. By using these officers, the expense would practically be reduced to the cost of running the pumping plant. A day engineer and day fireman and a night engineer without a fireman could do the work at the power house".

Price For Water System And Franchise - \$137,000

- \$20,000 for the artesian system
- \$117,000 for the lake intake system on the south side of the harbor

The System included

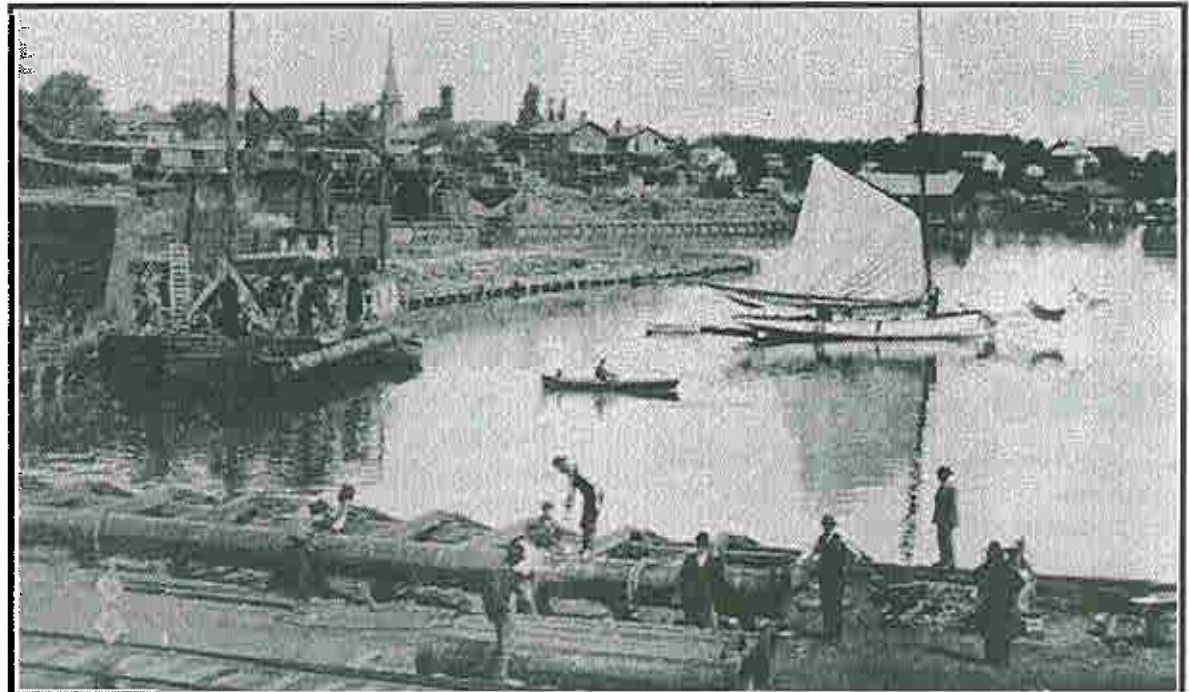
- 2 - Ladlow/Gordon horizontal pumping engines, two-million gallons per day each
- 2 - horizontal tubular boilers, rated 125 horsepower each
- 13 miles of cast iron water main
- 105 fire hydrants
- 4,000,000 gallon per day pumping station with grounds
- 24" Lake Michigan intake pipe

An ordinance proposed creating a Board of Water Commissioners and establishing rules, rates and regulations.

September 4, 1895 - Ordinance No. 172 adopted by Common Council created the Board of Water Commissioners and the first board was elected.

The ordinance established rules, rates and regulations for the Water Works. The Board of Water Commissioners is to consist of three disinterested free-holders and taxpayers of City of Kenosha; elected by Common Council; term of three years, without pay; shall make monthly reports to the Common Council.

The City Engineer would be the Superintendent of the Water Works under the direction of the commissioners. He will also serve as their clerk, keeping all books, records and proceedings.



Installation of 24" Intake Water Pipe into Lake Michigan - South Side of Harbor - 1895

♦ Telegraph-Courier - September 12, 1895

"The city administration has about come to the opinion that the citizens of Kenosha didn't want water works very bad, after all. The enormous amount of kicking that is being done over the rates and other imaginary evils is beginning to look serious. People do not seem to take into consideration the fact that the city cannot run the water works at a loss and conditions here do not allow of as low rates as are in vogue elsewhere."

1896

♦ A special meeting of Board of Water Commissioners was called for the purpose of paying \$760.00 in taxes for the City Water Company on lots 1, 6, 7 and 8 in Block 7 of the original plat of the Town of Southport (56th Street to 57th Street & 3rd Avenue to 4th Avenue).

♦ The first general report of the Water Commissioners was submitted to the Common Council. It covered the first 14 months of operation, through November 1st. The water works made a profit of \$8,850.31. There were 753 consumers; 337 took lake water and 416 took artesian well water. During the first three months of supplying water, the Park City Water Company still had collection rights. From October 1895 - October 1896 the plant pumped 160,668,787 gallons.

1900

♦ One vertical Barr pumping engine of four million gallons per day was purchased - cost \$19,021.03.

1904

♦ Property was purchased west of the pumping station for the purpose of erecting a storage tank.

The tank would provide more constant and higher pressure in western parts of the city.

1907

♦ A 250,000 gallon water storage tower was built to equalize pressure in the pipe system and supply water to the mains should it be necessary to stop pumping for any reason.

♦ Already, the pumping station couldn't keep up with high demand hours when factories were in production. The old, inefficient pumps had to be used to supplement the pumping.

♦ A permanent connection was made with the steam plant of Simmons Manufacturing Company in case anything happened to the Water Department steam plant.

1910

♦ It was necessary to increase pumping capacity at the pumping station. One Prescott horizontal pumping engine capable of pumping 6 million gallons per day was installed - cost \$19,420.15

♦ The balance of bonded indebtedness, \$72,000, was redeemed and paid out of surplus earnings of the Water Department.

1912

♦ August Baltzer re-elected by council as city engineer defeating his assistant of 10 months B. C. Brennan 8 - 6. Brennan and Andrew B. Schmitz were elected assistant engineers. The assistants were elected rather than appointed so "Brennan wouldn't be led to the slaughter." Brennan received the same salary as the city engineer, \$1,500 per year.

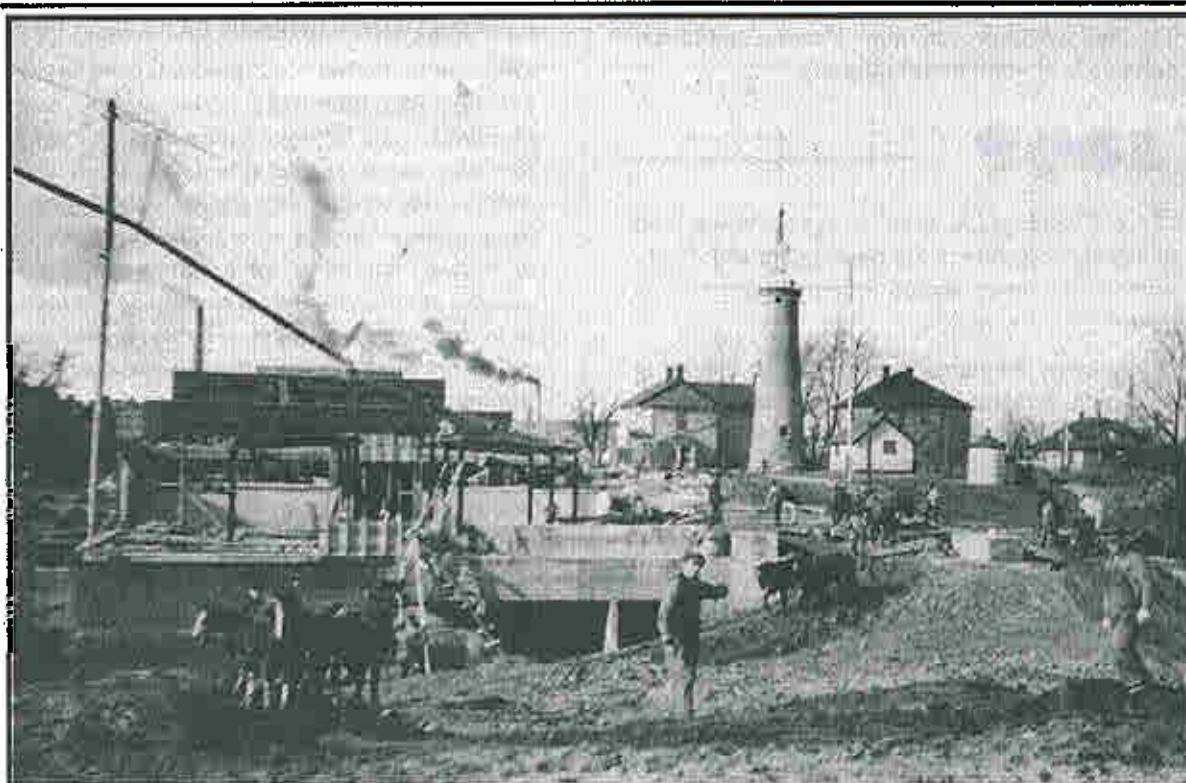
♦ The Telegraph-Courier May 30, 1912

"TYPHOID LURKS IN LAKE WATER"

"The members of the city council are being urged to get busy and take some action leading to the installation of a filter to cleanse the water used in Kenosha and the special committee, which was in charge of the investigation started some time ago, is being urged to make a report. Chemist Thorkelsen of Racine, has made an examination of many samples of water taken from the lake off Racine and Kenosha and his report shows that typhoid germs lurk in the water and that most of it is unfit for use without first being boiled."

The examination of the water showed the presence of much organic matter and gas formers. It is held that the gas formers are particularly productive of typhoid fever. Kenosha has not been free of typhoid fever in years and the number of cases seems to be showing a slight increase annually. While few deaths have been caused by the disease in the past year, there is no telling when Kenosha may have an epidemic of the disease that will be as disastrous as the recent scarlet fever epidemic. The officials of the city were warned of the danger from scarlet fever and failed to heed the warning. Now they are being warned of the dangerous typhoid."

The special committee in charge of the investigation of the building of a filter was headed by Alderman James Filbin, but at the last election a number of the members of the committee failed to secure re-election and it will be up to the Common Council to name a new committee to fill the vacancies on the old committee. The committee has done considerable work and has a lot of data to turn over to the council in regard to the advisability of building a filter at this time, but plans were laid for visits to several other cities which were not made. Evanston is going through the same troubles as Kenosha and it is thought that the local committee will be able to get a lot of information from the Evanston officials to aid them in making a solution of the big problem."



Construction of Original Water Plant (north side of harbor) - 1916

In the meantime, the question of financing the building of the filter has been discussed and it is certain that a portion of the money needed could be secured from the funds of the Water Works Company and the remainder could be raised by issuing bonds either against the water plant or against all of the property of the City. The people of the City are now demanding the installation of the filter and even though it may demand further bond issues, it is thought that the Council, working with the Board of Water Commissioners, will see the necessity of getting the work started so that the filter may be put in the early part of next year if not during the present year. From the figures that have been secured it is thought that the cost of a filter would be in the neighborhood of \$100,000."

◆ The water debate continued between laying a new intake pipe or putting in filtration. Water consumption was growing and the plant was reaching the point where the intake and the pumping equipment would be insufficient to meet demand.

◆ The Water Board visited Milwaukee to examine their system. Milwaukee believed that by having a very large intake 8,800 feet offshore, the water would be of higher quality.

The commissioners were also interested in Milwaukee's method of billing for water. It was metered at a flat rate of 4 1/2 cents per hundred cubic feet. Kenosha charged on a sliding scale.

◆ In April of 1912, plans were approved for a new receiving well at the pumping station. It would

increase the capacity of the plant and increase water pressure in the mains.

The new well would be 30 feet in diameter and 30 feet deep, four times the size of the old one. It allowed them to put off building a new intake while extending service - cost \$6,569.

◆ The water wasn't the only problem the Kenosha Water Company had. The Telegraph-Courier of September 26th had this to say:

Company Called on Carpet by Commission

TOO MUCH TIME IN SALOONS

"Old time Employees Are advised That They Must Give Proper Time to the City's Work or Get Ready to Look For Another Job For Winter."

"A general shake-up is promised among the employees of the Kenosha Water Company and a special meeting of the Board of Commissioners was held on Wednesday evening at which the delinquencies of some of the men employed for street and extension work were taken up. While none of them were discharged, a general order was issued putting all employees on this list under ban and these men will have to show a decided improvement in their work if they are to be retained on the payroll of the water department."

1913

◆ Common Council passed a resolution instructing the Water Commissioners to secure plans and specifications for installation of a filtration system.

1915

◆ Simmons Manufacturing Company offers to buy the City's water plant. Common Council accepts the proposition for the sale of the water plant to Simmons Company.

The deal arranged with Simmons was for the pumping plant and other adjoining property owned by the City, the portion of Market Street (56th Street) between the east side of Lake Street (3rd Avenue) and the lake and the land between Lake Street and Park Street (4th Avenue) in exchange for 7 acres on Washington Island and \$25,000 cash.

♦ July 1, the Board of Water Commissioners asked for bids on a new intake to be opened July 26th. The contract was awarded to **Greiling Brothers Company** of Green Bay to construct a 42" cast iron intake pipe extending 4,700 feet into Lake Michigan - cost \$78,022.

♦ At the August 2nd Council meeting, an agreement was initially passed for transfer of the deeds from Simmons Manufacturing when the matter was reconsidered. The issue in question was "sand rights." Who can sell sand from the proposed site of the water plant.

♦ August 7, **B. C. Brennan** requests approval for installation of a water main under the local harbor. It had to be approved by the U. S. government.

♦ August 16, the Mayor and city clerk are directed by Council to sign the deed for transfer of the old water plant. **Aldermen Rowe, Joachim and Smith** opposed. The action was taken right after the reading of a letter from Z. G. Simmons in which he explained his agreement with the Water Commissioners.

♦ December 6, Water Commission asked Common Council for a \$250,000 bond issue for a new plant.

1916

♦ January 17, a resolution was passed for the bond issue for the new water plant. The City issued the bonds; however, the Board of Water Commissioners had to reimburse the City for payments of principal and interest out of Water Department earnings.



Installation of 42" Cast Iron Intake Pipe into Lake Michigan - 1916

♦ January 19, 1916, the water plant had two more days of hypochlorite of lime (chlorine) left to treat the water. The chemical was being used to help fight typhoid, which was at an epidemic rate in Chicago and Milwaukee. The shortage was caused by the war in Europe because it was used as a disinfectant on the battlefield.

Superintendent Brennan found a supply to purchase; large enough to supply them until November. By that time, the new pumping station would be operating and the filtration process would reduce the amount of chlorine necessary.

♦ Contracts were let in February for the plant, filtration, and chimney. A \$70,000 bond was furnished to the Board of Water Commissioners by

Klug & Smith Company to insure the completion of the pumping station according to specifications.

A \$45,000 bond was furnished by **New York Continental Jewell Filtration Company** for the filtration to be completed by December 1st.

♦ March 6th, the Board of Water Commissioners received permission from Council to move the Poor House to the lot owned by the City just north of the light house.

Arrangements were made with the **Bruns brothers** for the moving of the Poor House on Washington Island. The historic building would be moved a few hundred feet to make room for the pumping station.



First Steam Operated Water Pumping Station - 1917 (from left) John Anderson - Chief Engineer of Pump Station, John Milligan - Water Commissioner, Jack Zimmerman - Water Commissioner, B. C. Brennan - Director of Public Works, Frank Grasser - Water Commissioner and Lew Heller - Superintendent of Distribution

On March 20th, the City Council passed an ordinance for the issuance of bonds, removing the last obstacle to construction. The first bonds would be issued in July.

The City Council would also pay the Water Board the annual hydrant rental of \$10,000 agreed upon by the two bodies and sanctioned by the Wisconsin Railroad Commission.

March 27, final plans were presented to the Board of Water Commissioners for the pumping station.

The Telegraph-Courier and Kenosha Evening News in their headlines declared it would be "A Thing of Beauty".

The station would be located on Widman Street (51st Place), about 200 feet east of Washington Street (4th Avenue).

The exterior would be of dark red wire cut brick and the interior would be a pressed brick of a light yellow color. The floor would be of the new terrazzo material, a combination of concrete and marble that looks like marble.

1917

May 10, the old pumping station was shut down and the new pumping station was operating on its own, it had been started up a week before - cost \$48,525.

The pumping engines, centrifugal pumps, boilers, heater, feed pumps, crane and piping were furnished by Allis-Chalmers - cost \$89,700.

The filtration plant contract was awarded to New York Continental Jewell Filtration Company of New York. Construction, not including equipment, was sublet to the Sterling Engineering and Construction Company of Milwaukee - cost \$92,727.79.

The radial brick chimney, 125 feet in height, was built by the H. R. Heinicke Company of New York - cost \$2,308.92.

August 21st, a break in the main close to the new plant forced it to close down; therefore, the old pumping station at the foot of Market (56th Street) and Lake (3rd Avenue) was put back into operation.

Greiling Brothers were contracted to lay a 24 inch cast iron water main across the bayou on Middle Street (50th Street) from Washington Island to the west bank. It was completed October 6th. The new pumping station was put back into operation the next day.

On August 27th, City Engineer, B. C. Brennan and Assistant Engineer, R. M. Smith entered Officer's Training Camp at Fort Sheridan and were granted an indefinite leave of absence.



Completed Pumping Station - 1918

1918

- ◆ The State Railroad Commission submitted a schedule that would generate about \$25,000 per year less net profit than requested. The Commission did not approve of making the consumer pay for the extension of water mains and would not sanction earnings greater than 6% to cover interest, depreciation and profit on a municipally-owned plant. This was not enough money to pay for extension of mains, interest and bonds.
- ◆ The Water Commission recommended a bond issue of \$150,000 be made. The City of Kenosha would have to issue the bonds, however the money to repay the bonds would be taken from the Water Department earnings.

1922

- ◆ A special election was held and the results were to organize Kenosha under the City Manager form of government.

The Council consisted of five members elected from the city at large for two year terms, without compensation. The first new Council was elected April 4th and began their duties April 18th. They conducted all City business until October 9th, when they selected C. M. Osborn as City Manager.

- ◆ On December 18th, the Council adopted an organizational plan whereby City business would be conducted under eight departments, with a director heading each department. The resignations of the members of all former boards and commissions were accepted, with the exception of the Library Board. The various duties were then assumed by the City Manager and the department heads.

The Water Commission operated the Water Department until November 6th, when their resignations were accepted and management of the department was taken over by the City Manager. He became the Board of Water Commission.

1923

- ◆ The City Council passed an ordinance in conformity with state law authorizing the Water Department to construct water mains by assessing the abutting property in an amount equal to the cost of a six-inch water main. The special assessment was \$.80 per foot. This process helped in the economic development of vacant land in Kenosha.

1924

- ◆ The Water Department paid all of its operating expenses, bonded debt obligations and reimbursed the City's general fund for money borrowed to the

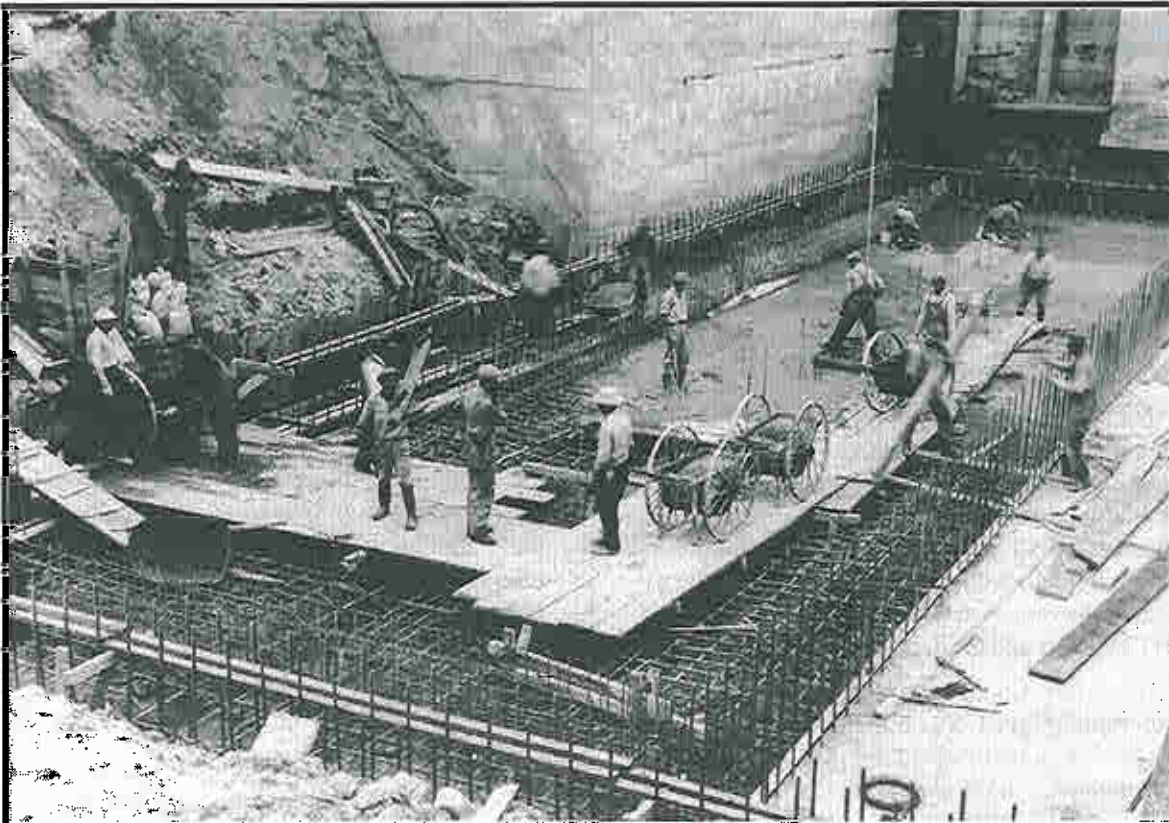
extent of \$35,000. It had been necessary to raise the assessment for the construction of water main to \$1.00 per foot to meet expenses.

1926

- ◆ Two engineering studies were made of the Water Works System. One survey recommended building an underground storage reservoir and an addition to the existing filter plant. The other looked at the piping in the distribution system and made recommendations to solve low pressure problems it had pinpointed.
- ◆ A 2,500,000 gallon underground water reservoir was constructed on Washington Island adjacent to the water pumping plant. The purpose of the reservoir is to increase the capacity of the filtration and pumping plant and insure an adequate water supply to our customers. The cost of the project was \$83,501.96 dollars. This allowed time to construct an addition to the filtration plant.



Inside 2.5 Million Gallon Finished Water Reservoir - 1926



First Addition to Filter Plant 6 MGD, Bottom Level - 1929

1927

Plans were put into motion to build a sewage treatment plant. Twenty-five acres lying between the C.M.K.&L and L.G.E. railroad right-of-way and Lake Michigan were purchased. The south line was approximately one half mile south of 75th Street at the point where Charles Creek enters the lake.

The City was unable to provide necessary funds to build the plant because of heavy bond issues for schools.

1928

The Water Department began the use of copper pipe for services to residential properties.

1929

An additional filtering unit was installed at the filtration plant, with a capacity of six million gallons per day. This increased the total daily pumping capacity of the filtration plant to fourteen million gallons per day.

1931

By order of the Public Service Commission on January 1st, the Water Department had to purchase all customer owned meters. It would make testing easier because the meters would be Water Department property. The Water Department began to test meters every six years, in their shop, in the basement of the City Hall.

1932

Eleven mains constructed by the Park City Water company were still in use. Water mains constructed by the North Side Water Company were no longer in service, but the drinking fountain at the North Side Fire Station (7th Avenue & 48th Place) was still supplied by the artesian well they built at that location.

Pipes, fittings, valves, hydrants, machinery and equipment for water distribution use were stored in a large yard and warehouse in the western part of the city.

The department began use of activated carbon to remove objectionable tastes and ammonia to help remove the chlorine taste.

1934

A 250,000 gallon elevated tank was built at Columbus Park (19th Avenue & 55th Street).

A 2.75 million gallon ground storage tank on 60th Street and 48th Avenue was built under a P. W. A. project. It was to provide better pressure in the western section of city; standby capacity in emergencies; and permit the shutting down of the pumps at night during certain periods of the year to reduce energy costs.



First Addition to Filter Plant. 6 MGD. Operating Level - 1929

1936

From the 1936 Annual Report, "City of Kenosha Water Department is a municipally owned and operated public utility operated under jurisdiction of Public Service Commission of Wisconsin. The City Manager acts as the Board of Water Commissioners. General supervision of this department is handled by the Director of Public Works. Detailed management and control of all operations, construction, maintenance, and office work is assigned to a Superintendent, who is a competent, licensed, civil and hydraulic engineer. Books are audited annually by the Wisconsin Tax Commission."

1937

- The boiler and furnace at the water plant were only obtaining a 56% efficiency. They were installed in 1916. Billows of black smoke were emitted from the stack in such volumes that the bathers and picnickers at Simmons Island Park complained bitterly about the soot that would drop on them.
- In early 1937, another large sum of money was allocated to the **Public Works Administration (PWA)** and grants of 45% were offered under this program. In order to take advantage of this, the City decided to designate the sewage treatment works a "Water Supply Protection Works" and finance it with Water Department funds.

1938

Water Supply Protection Works (Water Pollution Control Plant)

- Many years previously, the State Board of Health ordered the City of Kenosha to treat its sewage before discharging it into the lake. At the time it was impossible for the City to finance it, so nothing was done about it.
- With the advent of the Public Works Administration (PWA), the City hoped to do it with the aid of federal funds. The City made application under this Emergency Public Works Program, offering as collateral bonds issued against delinquent taxes. The federal government did not consider this satisfactory collateral and denied the applications.
- July 14th, the Public Service Commission of the State of Wisconsin, by written order, granted the Water Department permission to place a first mortgage against the Water Department in the amount of \$500,000. This allowed the sewage treatment works to become part of the water works system.
- September 26th, promissory note from the City to the Water Department was delivered for \$151,687.06. The ordinance for the issue of \$500,000 Waterworks Mortgage Revenue Bonds was also passed.
- December 19th, the Council approved locating the Water Supply Protection Works on the site originally purchased for that purpose.
- To generate the additional funds needed for operating costs (\$53,500) of the water treatment plant, the rates for Public Fire Protection were increased.
- Water Department purchased a warehouse located at 61st Street and 30th Avenue.

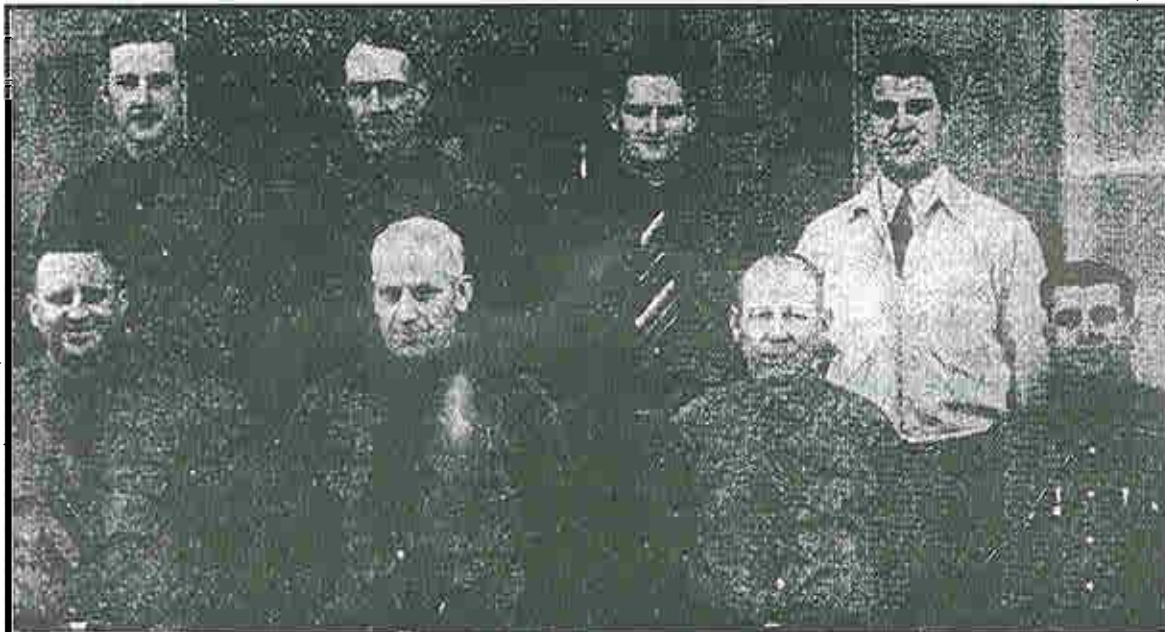
1939

- ◆ The sewage treatment plant was built to remove 50% of the pollutants. The construction was funded by a \$500,000 PWA grant and \$500,000 in water revenue bonds.
- ◆ An addition was built onto the water pumping station. A one story red brick building located west of the boiler room was built in architectural harmony with the old structure. It provided space for the meter repair shop which was to be relocated from the basement of City Hall.
- ◆ Artesian wells continued to supply drinking fountains at:
 - 4th Avenue between 57th and 58th Street
 - 6th Ave and 59th Street, center of intersection
 - 13th Ave and 58th Street

- 7th Ave, North Side of Fire Engine House (49th Street)
- 63rd Street between 10th and 11th Ave
- 8th Ave and 57th Street, S.W. corner

1941

- ◆ In 1934, twenty-eight percent of the total amount of water pumped through the distribution system was lost. In 1941, this loss was only 9.65%, thus showing an improvement in maintenance and efficiency in the Water Department.
- ◆ There were concerns about copper pickling wastes discharged into the lake from the American Brass Company and other industries. It was recommended to MacWhyte Company to construct a storage tank for iron pickling liquors and acids so the wastes could be discharged in small amounts instead of quantities of approximately 5,000 gallons.



The staff of the Water Pollution Control Plant when it opened in 1941 included (front - from left) Harry Holmes, Joe Cleary, Daniel Kuzmich, John Finnemore; and (back) Fred Bishop, Tom Connery, Eric Mattson and Bob Zievers.

1942

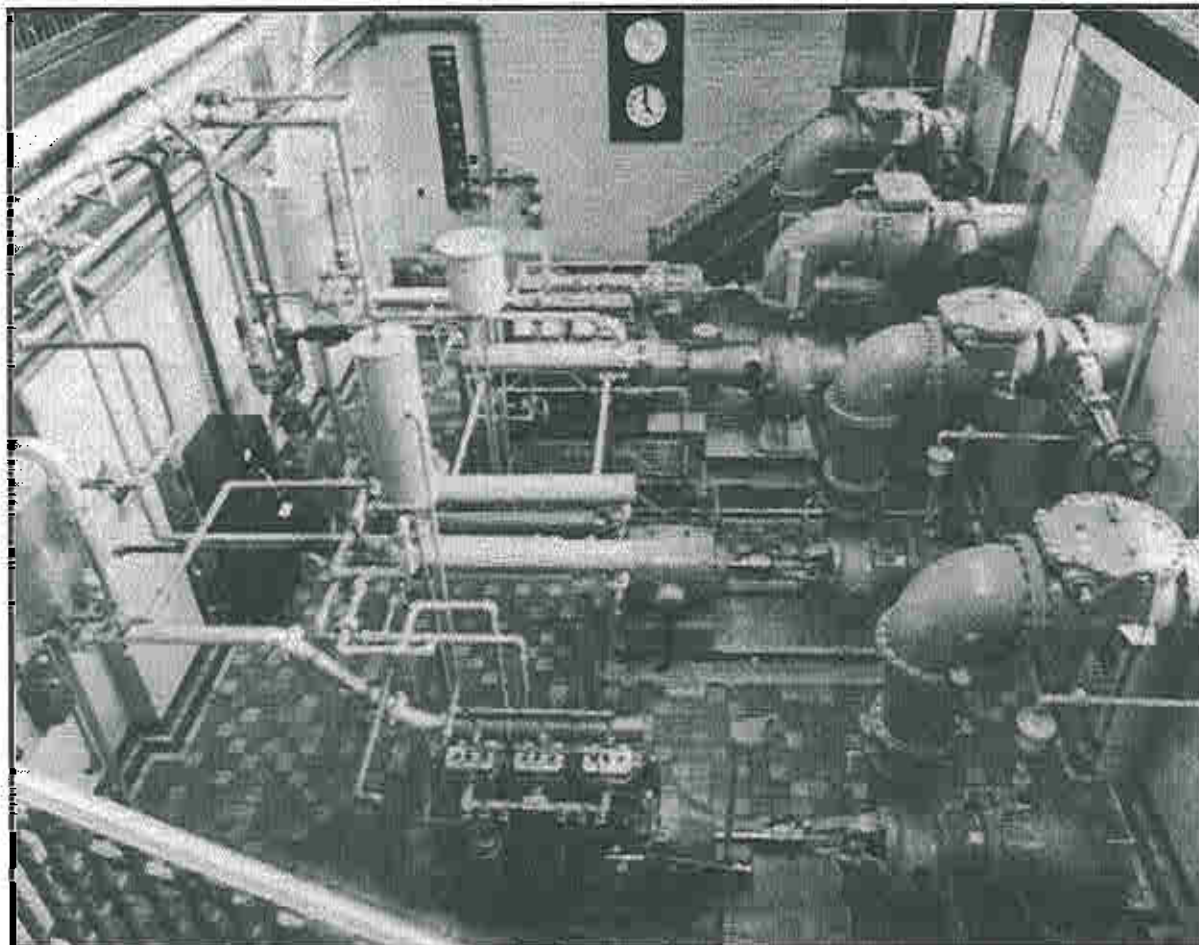
- ◆ Water was delivered to the consumer's door for a little over 3 cents per ton (240 gallons) - the price of the evening newspaper.

1943

- ◆ The Water Department took over the maintenance, repair and management of the light-keeper's dwelling which it had recently purchased from the U.S. government. One apartment had been rented and another was ready for occupancy.
- ◆ January 6th, the intake was plugged with needle ice. Two portable pumps and two fire pumps pumped water from the harbor to the entrance channel into the raw water well.

1944

- ◆ The filter plant had a rated capacity of 14 million gallons per day, but actually filtered and treated as much as 17 million gallons per day.
- ◆ The Superintendent of filtration was taken ill in early May and off duty for the balance of the year. One of the four operators was required to do the bacteriological and laboratory work, in addition to his regular duties.
- ◆ Sludge gases from sewage solids at the Water Pollution Control Plant provided all the fuel required for the gas engines and plant heating system.
- ◆ It was still necessary to continue by-passing the 6th Avenue interceptor sewer due to the large amount of American and Kenosha Brass Company pickling wastes and rinse waters which are discharged into this sewer. Thirty-five percent of Kenosha's domestic sewerage continued to be discharged into the lake untreated.



Sewage Pumps Used to Lift Raw Sewage to the Operating Level - 1947

- ◆ Office personnel of four employees performed all billing, collection, accounting, record keeping, reporting, payroll and typing.
- ◆ H. T. Rudgal, Superintendent of the Sewage Plant Division since 1940, was promoted to the position of General Manager of the Water Department.
- ◆ Frank I. Vilen was appointed Superintendent of Sewage Treatment Plant.

1948

- ◆ The 24" water main on the west side of the 50th Street harbor crossing broke. The break was such a short distance from the pumping station that it was valved off within 30 minutes, however for that short time most of the city was without water. To prevent that from happening again, approval was received to construct a new 24" transmission main from 50th Street through Simmons Island Park to be connected with the distribution system at 45th Street.
- ◆ Needle ice was a problem on January 21, 29 and December 27, 28. On January 29th, the employees had to use portable pumps and a fire department pumper truck to supply water to the plant. An emergency intake will be constructed in 1949.

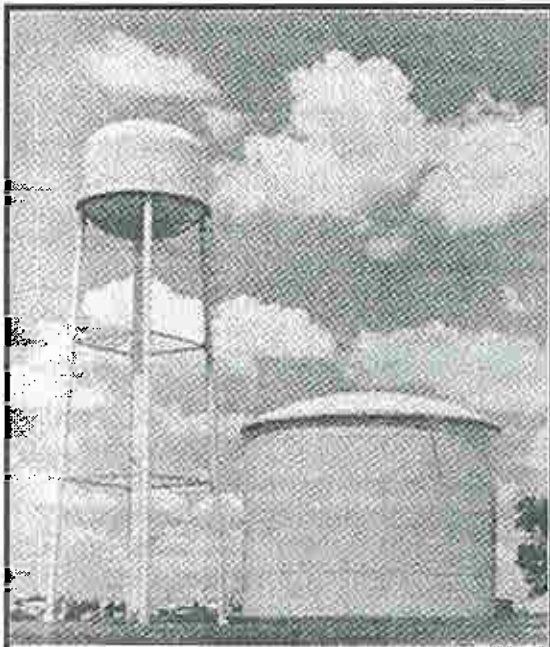
1949

- ◆ A water rate increase of about 40% was requested by the Water Department. The Kenosha Chamber of Commerce submitted a resolution stating that a rate increase was necessary, but recommended that the increase be less than what was requested by the Water Department.
- ◆ A second wood crib around the five, 42" intake riser pipes had disappeared. Instead of installing another wood crib to reduce the water velocity, new seven foot diameter steel drums were designed and installed in each of the five intake riser pipes.

- ◆ Litigation relative to the American and Kenosha Brass Company's industrial wastes reached the State Supreme Court.
- ◆ September 6, a meeting was held at City Hall with American Brass Company and City representatives. The American Brass Company agreed to assume responsibility for disposal of their wastes by constructing a private sewer line into the lake.

1947

- ◆ The Water Department was the 5th largest taxpayer in the City.
- ◆ The Meter Shop was manned by five employees who read and repaired 11,000 meters.



2.75 Million Gallon Ground Storage Tank and Elevated Tank - 60th Street & 48th Avenue - 1958

◆ Plant employees had their work week reduced from 48 to 44 hours per week while the construction force work week continued at 47 1/2 hours. Starting in 1950, the hourly employees would work 45 hours per week with no change in total take-home pay.

◆ An April 1st, an order from the Public Service Commission stated the City must pay \$90,000 (up from \$70,000) annually for Public Fire Protection Service plus a set amount for each new fire hydrant and foot of water main added to the system during the year.

◆ For the first time in the nine years of sewage plant operation, all of the dry weather wastewater flow from the City was treated at the plant and no sewage was by-passed into Lake Michigan.

1950

◆ The filtration plant began to change from steam pumps to electric pumps and began expansion to increase plant capacity to 20 million gallons per day.

1951

◆ A large number of water plants using Lake Michigan water had to shut down because of inadequate raw water supply because the intakes were blocked with needle ice.

◆ Construction continued to convert the water pumping plant from steam-operated pumps to electrically-operated pumping equipment. The Water Department purchased one 10,000 gallon per minute low-lift pump and two 9,000 gallon per minute high-lift pumps, each electrically operated with a separate motor and individual gasoline powered back-ups. The project was 74% completed by year end - cost \$205,000.

◆ The Water Department was the fourth largest taxpayer in the City of Kenosha, exceeded only by Nash Motors, Simmons and American Brass Companies.

◆ Corridino R. Nicolazzo was appointed General Manager of the Water Department upon the resignation of H. T. Rudgal.

◆ Alexander Skurski was appointed Assistant Engineer.

1952

◆ New pump installation completed. New intake suction loop also completed.

◆ New maximum daily intake capacity was increased to 20 million gallons per day, up from 14 million gallons per day.

◆ The emergency intake was completed.

◆ Progress continued in the construction of four, 1.5 million gallon per day filter beds and new settling basin. This will increase the filter capacity to 20 million gallons per day.

◆ Water Department was the third largest taxpayer in the City of Kenosha, exceeded only by Nash Kelvinator Corporation and Simmons Company.

1954

◆ New rates went into effect January 15th, but the full increase will not be felt until the October billing.

◆ Present crowded quarters are not adequate for the existing office personnel to work efficiently or to house the new equipment. It is recommended that steps be taken to procure additional space for the office force and that the new equipment be secured as soon as possible.

1955

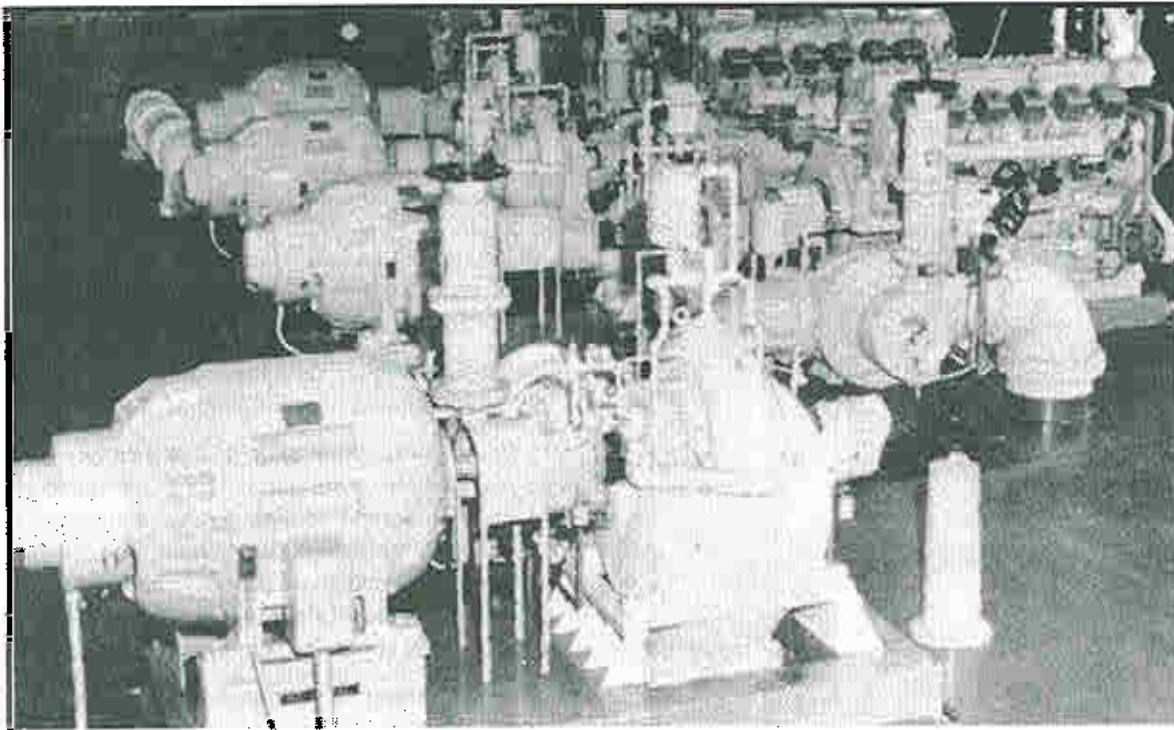
◆ The City provides funds for operating and maintenance of the Sewage Treatment Plant, however, the Water Department must fund all capital expenditures.

1956

◆ Water Department office operations are located in City Hall.

◆ New addressograph machine was purchased to address water bills. Water bills were issued on a semi-annual cycle.

◆ Three, 150 H. P. coal-fired steam boilers were removed and replaced with two, 50 H. P. oil fired heating units at the Water Filtration Plant.



Pumping Station with all Electrically Operated Pumps - 1957

Two, six million gallon per day high-lift steam pumps and one, twelve million gallon per day low-lift steam pump and the 125 foot smoke stack were removed from service.

Lew Heller, Superintendent of the Construction & Maintenance retired after many years of service.

1957

The City is divided into three districts, each billed and collected semi-annually. Part time help has been hired for evenings and Saturdays to prepare water bills.

This was the first full year of pumping with only electrical power.

The Pumping Station has seven men; Filtration Plant - six men; Meter Shop - six men.

1958

A 136 foot high elevated service tank was erected at 60th Street and 49th Avenue.

A 36" steel transmission main was constructed across the river at 50th Street.

Existing filtration facilities are becoming inadequate for the increasing consumption demands at times of peak usage.

All pumping is done by electric motor-driven units operated by five stationary engineers on a rotational basis, 24 hours a day. Gasoline engines are used in case of power failure.

Low-lift, or low pressure pumps supply the water treatment plant with raw water drawn from the 42 inch intake that extends 4,700 feet into Lake Michigan and terminates at a depth of 35 feet.

1959

The Utility experienced forty water main breaks.

Meter Shop - maintain and service meters on active accounts, read meters, answer complaints, install meters on new accounts and keep an index file of all meter accounts and their case history.

Three service men; two meter readers; meters are read twice a year; industrial and large consumers are read each month; monthly tests of the check-valves on our fire line meters to prevent their water from coming into the city water supply.

Fred Meyer retired as Superintendent of the Pumping Plant, he was replaced by Albert Serpe.

C.R. Nicolazzo resigned as General Manager in September. Alex Skurski was appointed acting manager.

The Board of Water Commissioners conducted a nation-wide search for a new manager.

Water Department began selling wholesale water to Somers Sanitary District.

1960

The Water Department and the Sewage Treatment Plant operations were officially combined to form the Kenosha Water Utility.



Business Office (from left) Mildred Bain, Marion King, Eleanor Migliano, Lucy Falaschi (Mr. Nelson's current secretary at the counter), Charlotte Larsen and Jourene Frederick. - 1960

• O. Fred Nelson was appointed General Manager of the Utility.

• February 11th - A freighter dragged its anchor over a submerged water main. Kenosha was without water for the first time in twenty years.

• The western part of the City was experiencing water shortages and pressure problems during the summer months.

1961

• A \$4,008,815 bond issue for Water Works improvements was defeated by the Common Council, on a vote of 10-7.

• The Utility had certain financial obligations that required a \$935,000 bond issue and resulted in a rate increase of 7%. The uses were:

- Additional land for Sewage Treatment Plant
- Ground storage tank

- Warehouse
- Engineering services
- 20 MGD filter plant and pumping station
- Transmission and distribution mains.

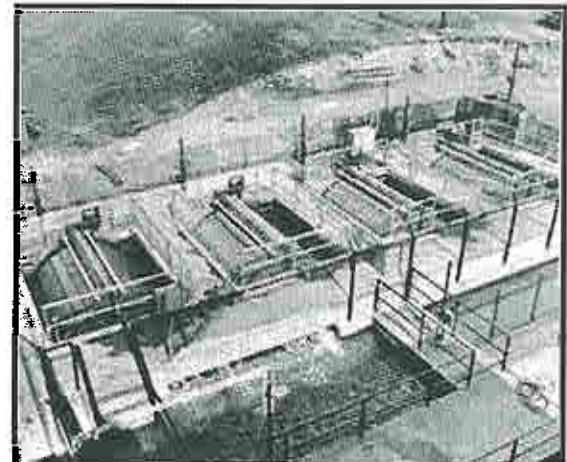
• One week of water shortage occurred, June 26th - 30th.

• Damage suit against Marco U. Martinoli, who pulled up the 24 inch harbor crossing in April 1960, was settled out of court for 80% of the cost.

• Pumping Station set a new record June 29th, 22,250,000 gallons of water pumped.

• Water Construction and Maintenance Division moved into a new service building in September which is on 8 acres of land purchased along 65th Street between 35th and 38th Avenue. The existing building was remodeled to accommodate operations by the employees of the division. They operated with three day crews and one night crew.

• Microstrainers were installed July 1. They remove algae and certain micro-organisms which cause short filter runs.



Microstrainers have a total rated capacity of 25 million gallons per day. - 1961

"Providing and Protecting Kenosha's Greatest Natural Resource ..."



An award for an outstanding program of customer relations was presented to the Kenosha Water Department at the American Water Works convention in 1962. Receiving the award are O. Fred Nelson (seated left), manager of the Water Department, and Edward Flug, Chairman of the Water Commission. Members of the commission are (standing from left) John Tondryk, George Ward, John Finley, Mary Smith and Mario Capponi.

- ◆ Sewage Treatment Plant continues to operate about 40% above capacity. A study and report completed by Dr. G. A. Rolich of the University of Wisconsin and Dr. L. A. Polkowski of Iowa State University made the following recommendations for the future:
 - A modified activated sludge treatment process is most suitable for the sewage characteristics of the City of Kenosha.
 - Present primary facilities be limited to flows of 12 MGD with any excess by-passed directly to the secondary treatment process.
 - Grit handling facilities be enlarged to a flow capacity of 30 MGD with that portion of the flow to be by-passed directly to the secondary process were it is to be dewatered and fine screened.
 - Continued efforts should be made to separate storm and waste waters.
 - Major "wet industries" that would contribute to the organic content of Kenosha's dilute sewage be encouraged to develop in the community.
- ◆ Contract negotiated with the Town of Somers. Treatment service will be furnished to the Somers Sanitary District.

- ◆ Sewage Treatment Plant was designed for primary treatment only. Average daily flows have exceeded the 10 MGD design since 1949, and in more recent years, have exceeded capacity in a range of 40 to 50%.
- ◆ Land for future Sewage Treatment expansion purchased for \$50,000 - ten acres west of present plant along 7th Avenue.
- ◆ In late 1961, sewage treatment services were extended to another section of the Town of Pleasant Prairie. The area includes South Kenosha, 91st Street and South Sheridan Road.

1962

- ◆ A \$2,790,000 bond issue was approved December 7, 1962, for modification and expansion of water plant addition. Plans are to let contracts in May of 1963 and project completion about May 1965.
- ◆ The Water Utility received an **Advancement Award** from the American Water Works Association and has been considered one of the outstanding departments of the City.
- ◆ June 29th, all-time daily pumping record of 22,758,000 gallons was set.

1963

- ◆ May 11th, ground was broken for expansion of the water treatment plant. Construction began on the new 20 MGD filter plant addition and low lift pump. The raw water well is 70 feet deep and 120 feet in circumference.
- ◆ May 25th, a ship called the **LaLoma** pulled up the 24 inch harbor main. The city didn't lose water because of the automatic cutoff valves that were installed after the last accident. The ship dropped its anchor in the wrong area to keep from ramming the 6th Avenue bridge.



New 20 MGD Filtration Plant - 1964

- ◆ Installation of new 36 inch harbor crossing, which cost \$80,000, was paid equally by the Water Utility and City because of the advantage of a deeper harbor. This action was necessary because of a recommendation of the U.S. Corps of Engineers and previous 24" main being ripped up by the anchor of a foreign ship.
- ◆ Sewage treatment contracts with Somers Sanitary District #1 and with Pleasant Prairie were expanded to include more service areas.
- ◆ 20 year lease of Water Utility property to Park Department at 65th Street and 38th Avenue.
- ◆ The Construction Division consisted of 26 employees - one general foreman, four crew

foreman, equipment operators and maintenance workers who make up crews varying from two to eight men, depending on the project.

Their busy year included:

- approximately 60 water main breaks, due to severe freezing weather with little snow for ground insulation.
- approximately 404 frozen water connections to homes were thawed out.
- ◆ The Meter Division relocated to 3701 65th Street to allow expansion at the Pumping Station and Filtration Plants. Charles J. Schmidt retired and Tony Poteliunas replaced him as Superintendent of the Meter Division.

- ◆ The 80th Street ground storage tank was built and put into operation.
- ◆ July 12th, 26,910,000 gallons were treated with a maximum hourly rate of 29,000,000 gallons per day. The hazard created by such a forced filtration procedure will be eliminated by the expansion of the existing filtration facilities to 40 million gallons per day. The new filters are to be in operation by June 1964.
- ◆ Sewage Treatment Plant - daily average flow treated was 40% above plant design. Average flow 14.160 MGD, plant design capacity is 10 MGD. It is planned to hire a consulting engineering firm and to begin preliminary work for expansion and secondary treatment in 1964.

1964

- ◆ The new 20 MGD filter plant and raw water pumping station were placed into service June 1, including all new chemical feed facilities, laboratory and central plant control. Dedication was held on August 29, 1964.
- ◆ A complete rebuilding of the pump control room was completed including a new control panel made up of meters, switches and indicator lights for all low and high lift pumps.
- ◆ New remote control gears and control panels were installed at the 60th and 80th Street stations to transmit data back to the pump control room via tone signals over a telephone line.
- ◆ Fluoridation of the drinking water began November 11th, which was authorized by a resolution of the Common Council.
- ◆ New water rate increase placed into effect June 1, authorized by the Public Service Commission. The rate increase was necessary to pay for revenue bonds required for the water plant construction.



The Kenosha Air & Water Pollution Advisory Commission - (seated) John D. Bilotti, Peter P. Nedweski - Chairman, Francis Pitts, Grover Kormann, (standing) O. Fred Nelson - Secretary, Mitchell Urbanski, George Zimmer, (not pictured) Donald Holland, Clyde Fredrickson, Gerald Bellow. - 1967

♦ **Jack Bennett**, Superintendent of the Filter Plant with 44 years of service and **Al Serpe**, Superintendent of Pumping, with 29 years of service, retired. Their divisions were combined into one and **Don Gibson** was hired in November as the newly created Water Plant Superintendent.

♦ The Sewage Treatment Plant treated a daily average of 15.6 million gallons per day, which is 56% above design capacity. Addition of one operator brought the number of employees to 12. The consulting firm of **Warren & Van Praag, Inc.** of Decatur, Illinois was engaged to prepare plans, specifications and cost estimates for a plant expansion. The plans are to be completed by June, 1965. The new plant is to be designed to have a capacity capable of treatment to the year 1985.

1965

♦ August 21st, the business office moved to the Water Production Plant at 100 51st Place.

♦ The Board approved borrowing \$2,500,000 for the addition of an 18 million gallon per day secondary sewage treatment process, to be added to the Water Pollution Control Plant (Water Supply Protection Plant).

September 7th, a bond issue of \$1,750,000 was authorized and a \$750,000 federal grant was obtained to finance the additions.

Bids were received December 20th. **Acton Construction Company** of St. Paul, Minnesota was selected as the prime contractor.

♦ Construction Division - ductile pipe was used for all main installations.

♦ Meter Division - July 22nd an analysis of the Meter Division by the Public Service Commission was completed. The report stated "We are pleased to note the commendable performance of Utility's meter department with respect to periodic meter testing, meter maintenance and meter records. Other operational aspects also appear to be significantly above average for your utility."

♦ The Light House and Keeper's House are 100 years old.

1966

♦ Tentative approval of a Housing and Urban Development (H.U.D.) grant for the construction of water transmission mains and a ground storage tank at 30th Avenue and 21st Street to serve the northwest area. The total project is estimated at \$1,017,000. Water from this will serve the University of Wisconsin-Parkside and will allow the development of 4,000 acres in the area.

♦ Developed a 20 year capital improvement program capable of providing service for a population of 92,000 and planning for 181,000 by the year 1990.

1967

♦ The Wisconsin Public Service Commission authorized water rates to be increased 10% effective June 1, 1967.

♦ Water bills were computed, printed and fully produced by an outside firm.

♦ "Sewer Separation" program launched separating storm and sanitary sewers.



The Dedication of the Water Pollution Control Plant Expansion - 1967 (from left) O. Fred Nelson - General Manager, Frank Vilen - Superintendent and Peter Curi - Chairman of the Board of Water Commissioners

- ◆ The Water Pollution Control Plant addition of secondary treatment was completed - cost \$2,500,000. The dedicated was on October 1, 1967.
- ◆ Beginning in 1968, a wastewater treatment charge of 18.5% of the water bill will be collected from all water customers.

1968

- ◆ Pipeline work began and most of it was installed along 30th Avenue. Water was furnished to U.W. Parkside by November 15th.

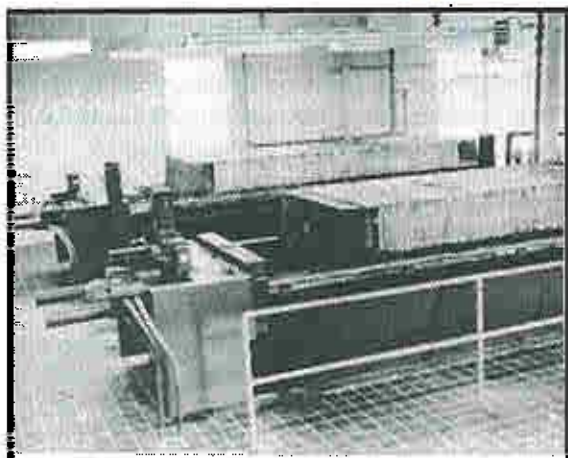
- ◆ The Department of Natural Resources ordered the Utility to proceed with a plan to remove 80% of the phosphates in the wastewater effluent prior to discharge into Lake Michigan.
- ◆ February 19th, the lake intake froze up, therefore the harbor intake was put into service.
- ◆ Waterworks Mortgage Revenue Bonds in the amount of \$550,000 were sold to finance the following projects:
 - major water transmission mains
 - 4.3 million gallon ground storage tank and booster pump station at 30th Avenue and 21st Street.

1969

- ◆ Contracts were completed for the installation of 6.5 miles of water pipeline, booster pumping station and 4.3 million gallon ground storage reservoir - cost \$928,000.
- ◆ The Rex Technical Center study for phosphorus removal has been completed.
- ◆ This was the initial year in providing for the dumping of septic tank wastes at the Water Pollution Control Plant. Contractors pay a license fee of \$100 per year and must furnish a performance bond for \$5,000. Only wastes of domestic origin may be discharged.

1970

- ◆ The Board authorized an increase in waste water treatment charge to 45% of the water bill, effective November 1st.
- ◆ The Board also authorized the business office to separate the billing of water and water pollution control bills. All bills will continue to be issued on a six month basis, however the water pollution control bill will follow the water bill by three months.
- ◆ A new water main was construction on 75th Street from 54th Avenue to 60th Avenue. This main will supply adequate water for the new Ocean Spray Cranberry Plant.
- ◆ The Distribution Division relocated a portion of 24 inch concrete water main prior to the construction of new Holiday Inn.
- ◆ Frank Vilen, Superintendent of Water Pollution Control, received the "George F. Bernauer Memorial Award" for exceptional contributions in the field of wastewater technology.



Two Edward-Jones Filter Presses - 1972

1971

- ◆ Engineering designs for the installation of sludge dewatering filter presses are being completed. These presses will be the first ones installed in the United States.
- ◆ Completion of the new combined Biosorption Demonstration Project - cost \$1,300,000. This project was the first and only of its type to biologically treat storm flows from combined sewers by this process.
- ◆ **O. Fred Nelson**, General Manager, was honored as the American Water Works Association "Water Utility - Man of the Year" for the Wisconsin Section.
- ◆ The Water Utility Business Office moved into facilities on the first floor of the Municipal Building in November.
- ◆ **Frank Vilen**, Superintendent of the Water Pollution Control Division, retired after 23 years of service.

1972

- ◆ Construction started at the Water Pollution Control Plant for the sludge dewatering filter press building, phosphate removal facility and new chlorination basin. Contracts were awarded for these projects in August.
- ◆ **Jerry Selin** was appointed Superintendent of the Water Pollution Control Division.
- ◆ **Jack Clausen** was appointed Superintendent of Construction & Maintenance Division.

1973

- ◆ American Motors increased their daily demand for water by one million gallons. They use about five million gallons per day.
- ◆ Intake had needle ice problems January 10th and 12th. A new wooden screen crib was installed on one of the five inlets to try to alleviate the needle ice problem.

1974

- ◆ The annual report was dedicated to **Peter P. Nedweski**, "for his tireless efforts to improve the water quality of lakes and streams in the Kenosha area."
- ◆ The Board authorized the Utility to create an Engineering Division which will be the responsibility of Assistant Manager, **Alex Skurski**.

1975

- ◆ **Jack Dudley** appointed Superintendent of Water Production in May.

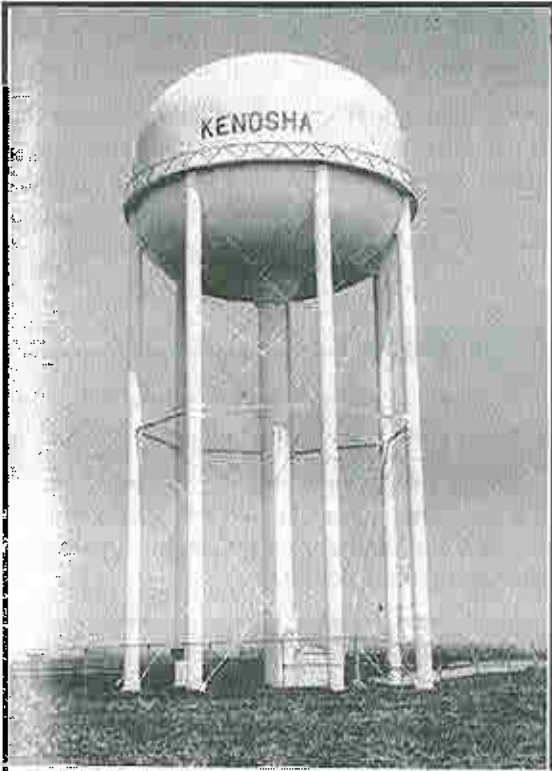
- ◆ Engineering Department organized. It consists of **Alex W. Skurski**, Assistant Manager, and two engineering aids, **Ed St. Peter** and **Rich Molini**.
- ◆ Water Pollution Control Plant - installation of lime storage tank and feed system; heated building built around the pickle liquor storage tank to eliminate crystallization during cold weather; all sludge from the plant was applied to farm fields this year.

1976

- ◆ The new 48" Lake Michigan intake placed into service - cost \$1,185,000.
- ◆ Bi-Centennial Community Fire Hydrant Painting Contest. The Utility was awarded Second Place in the American Water Works Association (AWWA) Community Action Contest.



Outside register installation program continues throughout the city - Ken Finnemore - 1976



Elevated Tank - 75th Street & Hwy #31 - 1976

• New 750,000 gallon elevated tank built on 75th Street east of Highway 31 - cost \$531,000.

1977

• This was one of the coldest winters on record. The frost reached a maximum of six feet deep. The Distribution Division repaired 157 broken mains and thawed out 875 frozen services.

• Five acres was purchased on Highway 31 and 67th Street for the construction of a new office and service center.

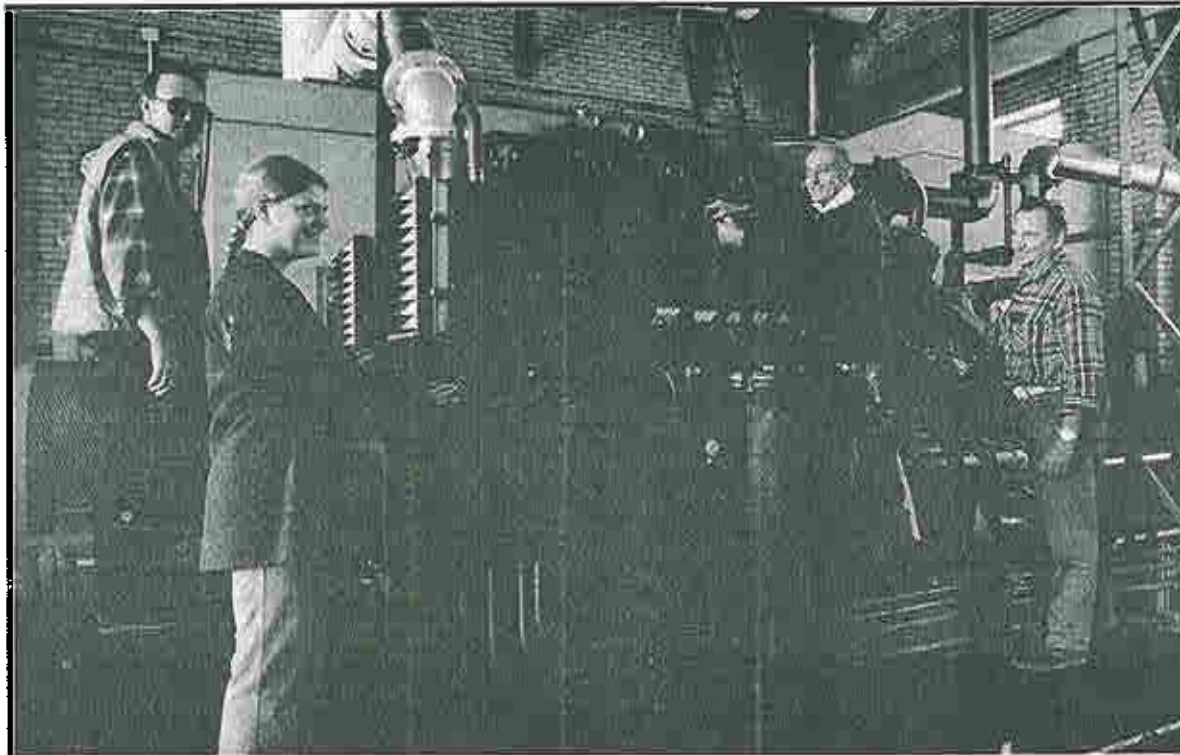
- The business office moved into temporary quarters at the Water Filtration Plant, 222 51st Street.
- Engineering Division was relocated to 6500 - 67th Street, the former WAXO radio station building.
- Ed St. Peter was promoted to the new position of Supervisor of Customer Relations.
- This was the largest construction year since 1966. There were 25,037 feet of water main installed.
- The Waukesha natural gas engine was used for the first time as power for the 20 MGD pump during daytime high demand periods, decreasing the monthly electrical demand charge - cost \$151,500.

1978

- Completion of the Sewer Study and the Kenosha Area Facilities Plan. Recommended a \$20,000,000 Water Pollution Control Plant expansion.
 - Ultimate disposal of sludge continues to be a major problem. A tractor and spreader were purchased which will be used to spread sludge on farmland.
- The DNR is also demanding closer control and increased monitoring of the sludge and the soil it is used on.



Water main break on Christmas Eve - Temperature -15°. Wind chill -50° (6th Avenue - Holiday Inn)



Inspecting the new 20 MGD natural gas engine are (from left) Vern Kersting, part-time laborer (name not available), Barney LaPorte and Chet Frye. - 1977

- ◆ Vehicle storage and meter shop additions and modifications to Distribution Division building were completed.
- ◆ Wisconsin Electric Power changed rate structure to a "Time of Day" basis. Night and weekend charges were less than half of daytime charges.
- ◆ Control center was relocated to the west end of filter plant with vestibule connecting control center to pumping station.
- ◆ Water Pollution Control Division - The completion of the new storage building has reduced vehicle problems by having them inside in the winter.

- ◆ The "Read Your Own Meter" program was initiated in the fall of 1977. The program was designed to have the homeowner read the inside meter four times a year.

The objective is to give credit to the homeowner for non-sewered, summer water usage. This credit is issued on the Water Pollution Control bill.

- ◆ Industrial account billing cycle was changed to bi-monthly.
- ◆ The Business Office was moved to 6500 67th Street.

1979

- ◆ Sewer Revenue Bonds in the amount of \$1,400,000 were approved and issued to finance the local share of the plant design and construction of waste water treatment plant additions and two new sludge presses.

- ◆ The continued high inflation and double digit interest rates slowed building construction; however, a back-log of 1978 water main petitions allowed a full season of water main construction.

A 16" water main to the new Industrial Park on 52nd Street at 68th Avenue was installed at a cost of \$100,000. This project is included in a City of Kenosha T. I. F. district.

- ◆ Insurance Service Office evaluated entire Water Utility operations and maintenance procedures and the city fire insurance classification improved to "3" from a class rating of "4".

- ◆ Jack Dudley resigned and Elmer Olep replaced him as Superintendent of Water Production.

- ◆ Ken Finnemore replaced Tony Poteliunas, Supervisor of Meter Services, who retired after many years of service to the Utility.



Business Office 6500 - 67th Street - 1978



Tractor & Spreader for farm land sludge disposal-1979

◆ Sludge spreading on the fields is proving the best system for ultimate solids disposal. Much work remains to be done to satisfy the monitoring standards set forth by the DNR.

1980

◆ Contract for vehicle storage building and meter shop completed in March 1980. Included are larger facilities for meter operations, and construction and maintenance services. The new facilities were designed by **Alvord, Burdick and Howson.**

1981

◆ Board of Water Commissioners approved the Water Pollution Control Plant upgrade, the largest public works project in history of Kenosha \$25,000,000. Financing by a \$12,000,000 grant from the state the balance from revenue bonds.

Contracts awarded October 20, 1981, for general construction to **Acton Construction, Hugo, MN.**

A \$13,500,000 Sewer Revenue Bond issue was sold to finance the project. The project is scheduled for completion in 1984.

- ◆ The Water Production Plant began using polymer.
- ◆ The Filter Press Project was completed, which provides adequate dewatering capacity at the Water Pollution Control Plant.
- ◆ The water billing cycle was changed from semi-annual to quarterly.
- ◆ **O. Fred Nelson, General Manager,** received the "Arthur Sidney Bedell Award" for outstanding service from the Water Pollution Control Federation.

1982

◆ Business office is preparing to move, under City administration pressure, to the City of Kenosha Civic Building (former Police Department), at 812 56th Street. The Utility will retain the property at 6500 - 67th Street and attempt to rent the property. Engineering Division moved to the old Police Department Building, October 11, 1982.

◆ The \$25,000,000 additions and alterations to the Water Pollution Control Plant are 50 percent complete.

◆ The \$1,000,000 upgrade of the pumping station and filter plant are complete.

◆ A contract was let to construct a 750,000 gallon elevated tank at the Kenosha Industrial Park (45th Street & 64th Avenue).

◆ The Utility began to sell water on a wholesale basis to Pleasant Prairie.

1983

◆ An advance refunding was issued on all outstanding sewer revenue bonds. This will reduce the annual principal and interest payment by approximately \$140,000 and a reduction of \$4,000,000 over the life of the bonds.



Water Centre - Administrative Offices
812 - 56th Street - 1982

◆ Business office moved to Kenosha Civic Building 812 - 56th Street in May. The building was renamed the "Water Centre".

◆ The Utility leased office building at 6500 - 67th Street to Hammett Chiropractic Center.

◆ The 750,000 gallon elevated tank at the northeast corner of the Industrial Park was completed.

1984

◆ The Central Control installation at the Water Production Plant is in its third year and was expected to be completed by the end of 1984, however the project has been delayed due to unavailability of hardware until July 1985.

◆ The water pumping and filtration operations were combined. There is now only one operator per shift at the Water Production Plant.

◆ **Ken Finnemore** was appointed General Supervisor of the Distribution Division.

◆ **Skip Hoffmann** was appointed Supervisor of Meter Services.

"Providing and Protecting Kenosha's Greatest Natural Resource ..."

- ◆ In August, an Emergency Watch crew was started to handle all after hours calls.
- ◆ **Marion King**, long time secretary for Mr. Nelson, passed away unexpectedly.

1985

- ◆ The Utility issued Water System Refunding Bonds in the amount of \$2,000,000 for all of the outstanding water revenue bonds. This will allow the Utility to pay off all water debt by 1988, reducing the time of pay back by four years, resulting in approximately \$1,000,000 of net savings in interest.

- ◆ The \$25,000,000 Water Pollution Control Plant expansion was completed.
- ◆ The Water Utility Business Office has been totally reorganized - **Ed St. Peter** was appointed Assistant General Manager to replace **Alex Skurski**, who retired after thirty-four years of service to the Water Utility. **Don Budzban** was appointed Supervisor of Operations and has charge of the business office. **Cathy Brnak**, Accountant, was appointed to replace **Edna Hileman**, who retired after many years of service to the Utility.
- ◆ Sperry mainframe and the additional use of PCs and word processing has given the Utility a superior

office automation operation by improving information and response time to our customers.

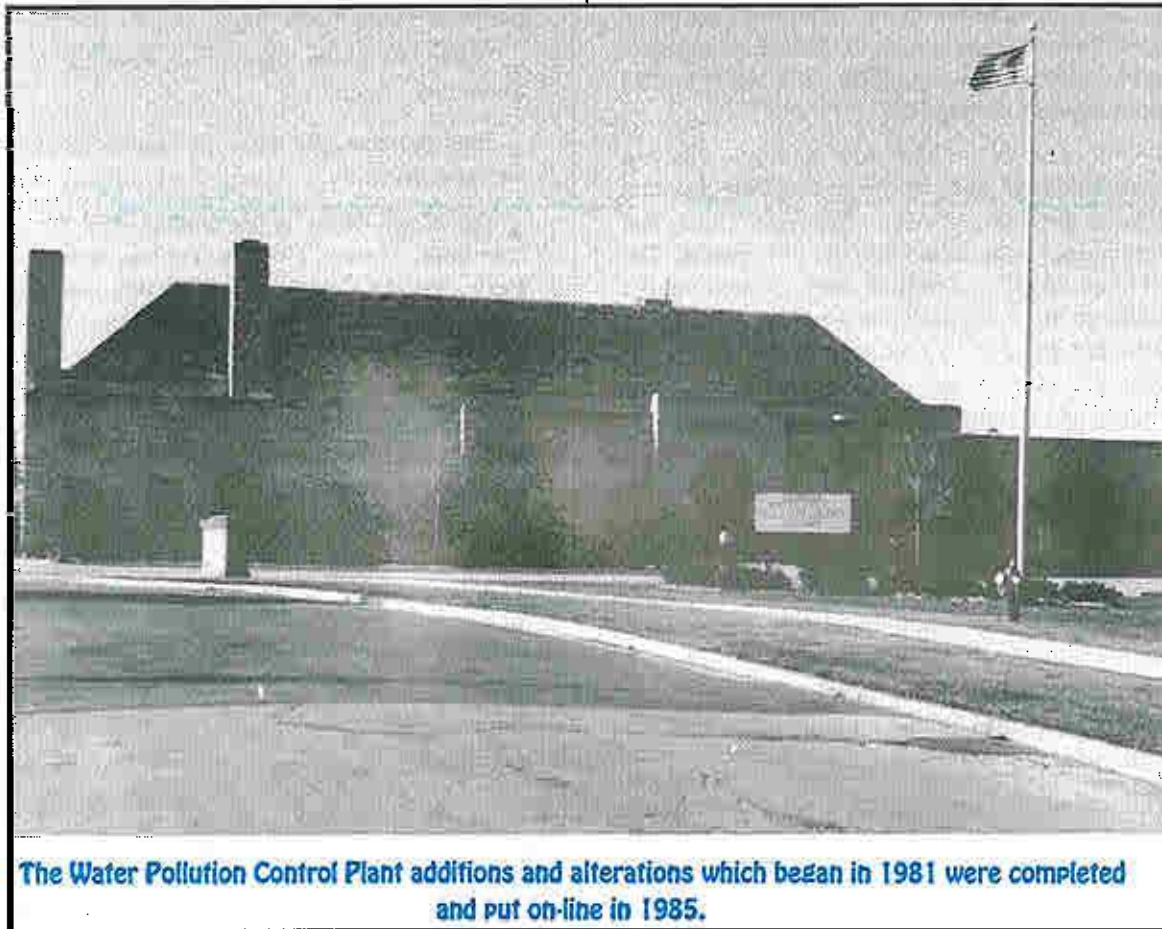
- ◆ The general ledger system was converted from a manual system to a computerized system.
- ◆ **Willard Puckett** and **Tom Heinisch**, water plant operators, were honored for the rescue of two women who were drowning in Lake Michigan.
- ◆ The business office is now using an NCR computerized cash register to receipt all payments.
- ◆ The Water Pollution Control Plant is in the process of installing an on-line maintenance system that reduces down-time for repairs and improves the life expectancy of the equipment.
- ◆ In September, the Utility became the control authority for the **Industrial Pretreatment Program**; control was transferred from Federal and State agencies. The Utility was granted the most comprehensive removal credits program in the State of Wisconsin. This benefit to local industry is not to be misconstrued as leniency, but rather as a result of us doing our homework.

An Industrial Pretreatment Advisory Committee was formed to keep abreast of Federal and State regulations.

- ◆ **Gerald Selia**, Superintendent of Water Pollution Control, was named "Operator of the Year" by WWOC.

1988

- ◆ The Utility is beginning the transition from dependence on the City of Kenosha's Data Processing Department to a position of complete independence in its daily computer operations. All jobs - accounting, journalizing, receipting, billing and customer information programs are now submitted by Water Utility personnel.



The Water Pollution Control Plant additions and alterations which began in 1981 were completed and put on-line in 1985.



Reviewing the operation of the new Utilicorders (from left) Karen Furloni - Clerk Typist, Ed St. Peter - Assistant General Manager and Skip Hoffmann - Supervisor of Meter Services - 1986

Utilicorder - a microprocessor to replace meter books. Data input by the meter reader will automatically be used to calculate the water and sewerage service bill.

The customer services and billing system was converted from a batch system to an on-line computerized system capable of giving current data to Utility customers.

The Water Utility, in cooperation with Gateway Technical Institute, is exploring the feasibility of utilizing our dewatered wastewater sludge as a beneficial potting soil or soil supplement. The modified sludge product is being placed in five pound plastic bags and called "Kensoil".

Computerized laboratory and maintenance programs are installed and working satisfactorily at Water Pollution Control Plant.

1987

Economic conditions improved in Kenosha as a result of the purchase of American Motors Corporation by Chrysler Motors.

The Utility will provide services to the new Lakewiew Corporate Industrial Park in Pleasant Prairie.

Bob Carlson was appointed Superintendent of Water Production.

Overflow in the sanitary sewer system during wet weather continues to be a problem. Solutions are being worked on to eliminate the problem.

1988

Chrysler Motors Corporation, formerly American Motors Corporation, closed their assembly plant on December 23rd, resulting in the layoff of 5,500 employees. The Utility anticipates a loss of approximately 23% of total revenues resulting from the closing.

The loss of AMC/Chrysler Motors was not unexpected and plans for the closing were prepared prior to the announcement. The Water Utility had contingency plans as did the City of Kenosha. The "Focus 2000" committee was addressing the situation. It was apparent that the people of Kenosha were not going to sit back and watch the city self destruct. Concerned citizens, along with civic leaders and members of city government, planned, organized and moved in many areas to turn the closing of a major industry into the beginning of a progressive and diversified city.

Another major event for the Water Utility was the extreme drought of the 1988 summer, breaking all pumping records, with a maximum day of 32.4 million gallons of water pumped to the distribution system. Because of the summer drought the Utility broke the all-time annual pumping records, for a total of 6.7 billion gallons pumped for the year.

The summer pumping put extreme strains on the distribution system resulting in a serious drop in pressure in the southwest area of the city. This



New booster station at 7th Avenue & 80th Street - 1988

situation caused the Utility to build a booster in-line pumping station at 80th Street and 7th Avenue.

Water and sewer mains were extended to the Municipal Airport.

Final payment was made on outstanding Water Revenue Bonds.

The Water Utility is cooperating with the four townships, Somers, Pleasant Prairie, Bristol and Paris, and the County in a \$200,000 Area-Wide Study for sewer and water to serve to one mile west of Interstate 94.

The City of Kenosha discontinued paying the Water Utility public fire protection charges of \$500,000 per year. The Public Service Commission authorized the Utility to begin charging its customers directly for public fire protection, which will amount to \$20 a year for each customer.

The Production Division installed a 30 million gallon/day high lift pump, the largest in the state.

All known sanitary sewer overflows and bypasses were eliminated or modified so that overflows during wet weather should no longer be a problem. With the dry year, the results of the changes that were made could not be tested.

"Providing and Protecting Kenosha's Greatest Natural Resource ..."

- ◆ Sanitary sewer maintenance crews and equipment were transferred from the City of Kenosha to the Water Pollution Control Division.
- ◆ Sanitary sewer installation costs were transferred from the City of Kenosha to the Utility's capital improvement program.

1989

- ◆ The receipting operation was significantly improved with the installation of a new NCR 7770 receipting machine. This helped to offset the additional time required as the Utility changed from quarterly to bi-monthly billing.

- ◆ The Administration Division was reorganized with the appointment of **Jerry Clements** as Supervisor of Operations - Customer Services and **Cathy Brnak** as Supervisor of Operations - Finance.
- ◆ The Utility purchased the city sewer system and will pay the City \$4,000,000 over a ten year period.
- ◆ This year was unusual, capital expenditures increased due to the demands for new water main extension. At the same time it was a period of decreasing water sales resulting from the closing of the Chrysler Motors Assembly Plant.
- ◆ The Utility's service area continued to grow with the annexation and boundary line adjustment to I-94 as a result of the Village of Pleasant Prairie

incorporation. This expansion, in addition to new subdivisions, resulted in the most water mains installed since 1964.

- ◆ Water and sewer services had to be extended to the new Dairyland Greyhound Race Track.
- ◆ Two major rainfall events were experienced during the summer which provided an opportunity to evaluate the capacity of the sewer system. It was found that the system could not handle the flows created during these storms without bypassing sewage to Lake Michigan and causing basement backups in several areas of the city.
- ◆ By increasing sampling surveillance, the Utility was able to eliminate the concern of being able to meet the copper limit which will be effective in the discharge permit in 1991.

1990

- ◆ Economic development required capital expenditures of \$2,365,000 in Water Division improvements and more than \$1,800,000 in sanitary sewer construction.
- ◆ The Utility received authorization to provide water west of the sub-continental divide.
- ◆ The Board of Water Commissioners authorized the Utility to proceed with the development of a Facility Plan to eliminate flooded basements and bypassing of raw sewage into Lake Michigan.
- ◆ A computer-aided monitoring and control system was installed for the Production Division.
- ◆ The Utility joined forces with the County to produce digitized base maps of the entire county. This is the first step in the creation of a Geographic Information System (GIS), for the Utility.
- ◆ The 150,000 gallon elevated tank at 104th Avenue was completed. This tank was relocated from 60th Street and 49th Avenue.



Virginia Otto - Clerk Typist processing water payments on NCR7770 Receipting Machine - 1989
(also pictured are Jerry Clements - Supervisor of Operations and Janet Zamsky - Supervisor of Customer Relations)



"Splash", aka Peggy Walker, the Water Utility mascot entertains and informs customers and their children about Kenosha's great water supply. - 1990

- ◆ An in-line booster station was installed at Hwy #50 and Hwy "H" to supply water to the Village of Pleasant Prairie.
- ◆ Due to the mild winter, the Distribution Division began laying water main in early February.

1991

- ◆ Economic development had a major impact on the Kenosha area which resulted in a continued demand for additional water and sewer installations. This was particularly in great evidence by an outstanding record of 305 new single-family homes being constructed.
- ◆ The City of Kenosha and the Utility began using "Subdividers Agreements", which force developers to install the needed infrastructure within their subdivision.

◆ Water Revenue Bonds in the amount of \$6,250,000 were sold for the construction of a 3.8 million gallon ground storage tank at 60th Street and 48th Avenue, an Emergency Generating Facility at the Water Production Plant and the extension of major transmission mains required for new developments.

◆ The Facility Plan was approved and commencement of the design of Phase 1-A began which consisted of a 30 million gallon Equalization Basin and a Interceptor Sewer on 14th Avenue between 80th Street and 50th Street. The engineering firm of **RUST Engineering and Infrastructure**, formerly **Donohue and Associates**, is preparing the design.

◆ The Utility completed a new Water & Sewer Ordinance. This process incorporated all required changes to existing Utility, City, State and Federal mandates that related to the Utility. There has been an entirely new Chapter (32) created in the City of Kenosha's Code of General Ordinances for the Utility.

◆ The pilot program for the "Automated Mapping, Facilities Management and Geographic Information System" (AM/FM/GIS) began. The pilot program will evaluate and delineate the process that will convert all Utility maps and service records onto a computer system.

◆ The Meter Services section of the Distribution Division was transferred to the Administration Division at the Water Centre.

◆ The new Standby Generator System was completed and put into service. This is a "state of the art" installation capable of providing sufficient power to meet our maximum capacity of 40 million gallons per day in the event of a total power loss.

◆ A new concern is the invasion of zebra mussels. This mussel has established itself in Lake Michigan and is starting to colonize in and around the Utility's intake facilities.



Operator of the Year - 1991
Gerald Selin (left) receives award from Paul Nehm, Madison Metropolitan Sewerage District

◆ Gerald Selin, Superintendent of Water Pollution Control, received the "George F. Bernauer Memorial Award" for exceptional contributions in the field of wastewater technology.

1992

◆ The Water Resources Division was created by merging the Water Production Division and the Water Pollution Control Division. Gerald Selin was appointed Director with Dennis Harmer as Assistant Director. Bob Carlson was appointed Facility Plan Engineer.

◆ The Town of Somers created a Public Water Utility for their service area. The Kenosha Water Utility sold water mains, hydrants and 104 water meters to the new utility. The Somers Utility will remain a wholesale customer of the Kenosha Water Utility.

"Providing and Protecting Kenosha's Greatest Natural Resource ..."



Mr. Nelson, General Manager (right) presents official Water Utility hats to the new Engineering staff at the "Annual Recognition Dinner". Receiving hats are (from left) Hank Kencler, Mike Bayak, Mike Gerdes, Ken Kanwub, Floyd Bethke and Harvey Elmer. - 1992

• The Engineering Services Division was created when the City of Kenosha terminated the Public Works Department and transferred all engineering personnel to the Kenosha Water Utility. **Harvey Elmer** was appointed Director of Engineering Services Division with **Floyd Bethke** as Assistant Director.

• A permanent **Household Hazard Waste** program began. This is the first permanent system in the state of Wisconsin.

• The Utility completed the "**Sewer Service Charge System for: Wastewater Conveyance and Treatment Facilities**". This report set out the system for financing the Utility's annual cost of providing wastewater collection and treatment services to all of its customers. With the approval of this report by the DNR, the Utility was able to receive a "State of Wisconsin Clean Water Fund" loan of \$36,388,177, with an interest rate of 3.99%. This low interest rate will save the Utility \$14 million dollars as opposed to issuing revenue bonds.

• The first phase of the "**Deep Tunnel Project**" is completed. The final phase and Equalization Basin will be finalized in 1994.

• **Ed Ramos** was appointed Superintendent of the Distribution Division upon the retirement of **Ken Finnemore**.

• The Distribution Division and Water Resources Division teamed up to install a new in-line booster station at 52nd Street & 27th Avenue. This station will improve pressure and aid in filling the 60th Street ground storage tanks.

• The Sanitary Sewer Maintenance section was merged within the Distribution Division.

• Board of Water Commissioners chairman, **Emanuel E. Rizzo**, was recognized for ten years of service on the Board.



Bob Carlson (right) is showing employees from the Utility's finance division how the auger works for installing the pipe for the tunnel project. (left) **Todd Giese, Peggy Walker and Sandi Cisler**. - 1993

1993

• The Board of Water Commissioners approved a contract with **Montgomery Watson**, Boise, Idaho, for a preliminary design report for upgrading the Kenosha Water Production filtration and pumping plant facilities. The report will detail the condition of the plant facilities, project future water quality requirements and analyze the regulatory framework to ensure compliance.

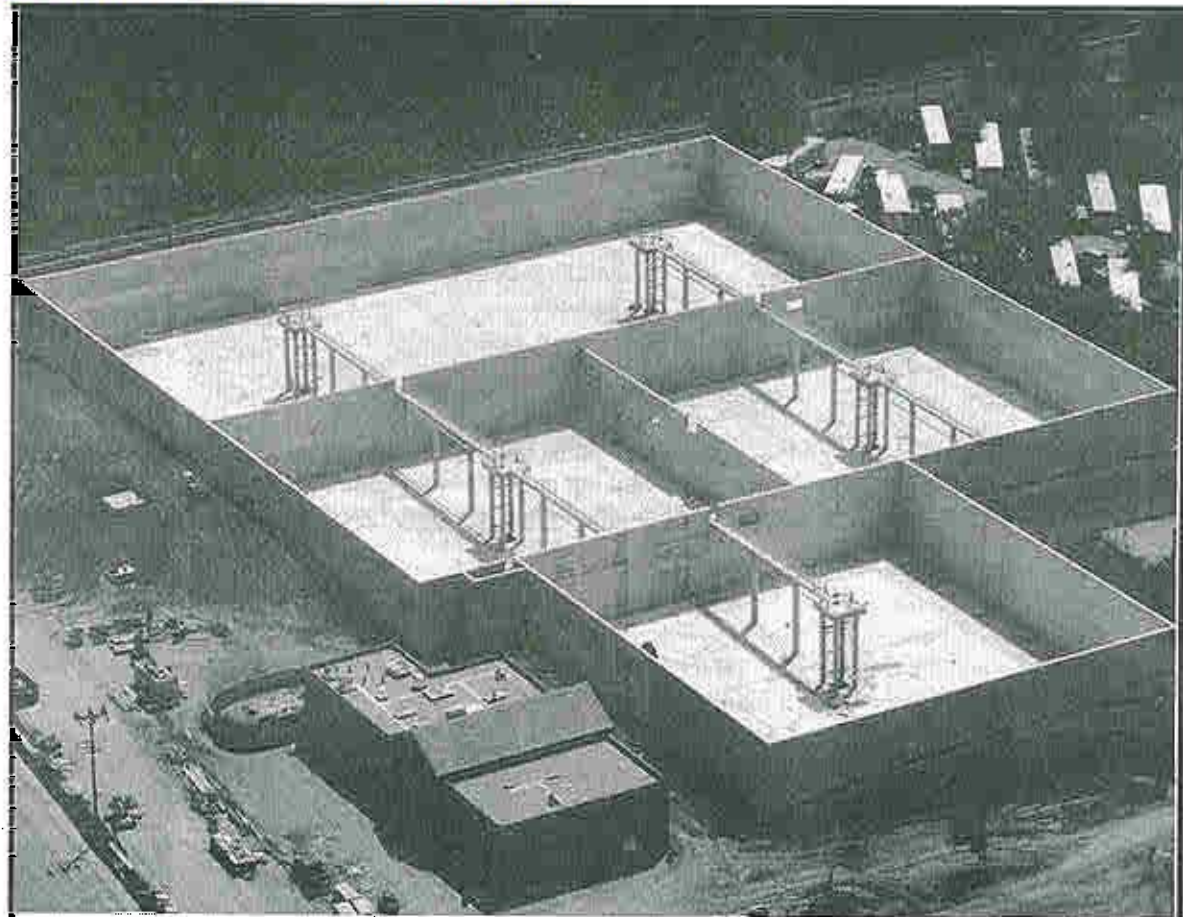
• The first full year of operating the **Engineering Services Division** was very successful. Approximately 63% of the work performed was for the City of Kenosha's Capital Improvement Program. The balance was for respective Water Utility units.

• The Water Utility refinanced the outstanding 1985 Sewer System Revenue Bonds. Because of previous refundings these bonds had to be a taxable issue in the amount of \$13,810,000. The results of the sale of these bonds generated a long term savings of \$1.5 million dollars.

• The conversion of all Water Utility computerized MIS applications, including billing and finance has begun. These applications are to be transferred from the City's existing Unisys computer to a new Unix based system, housed within the Utility. The new system is much more reliable, has faster access and will serve the Utility well into the future.

• The Waste Hauler's Discharge Site was moved from the WPC Plant to 50th Street and 49th Avenue because Pleasant Prairie imposed a weight restriction on south 7th Avenue.

• The Coordinated Sanitary Sewer and Water Supply System Plan for the Greater Kenosha Area to serve Kenosha County to one mile west of I-94 was submitted to all participating municipalities for approval.



30 million gallon Equalization Basin at 80th Street & Sheridan Road - 1994

1994

• The new "14th Avenue Tunnel Interceptor and Equalization Project" was placed into service.

• The engineering firm **Montgomery Watson** presented the final report on Renovating and Upgrading the Water Production Plant. The estimated cost for the project is \$38,905,000. The Board of Water Commissioners approved the report and selected **Montgomery Watson** to proceed with the final design.

• The Engineering Services Division designed and awarded the largest dollar volume of street improvement contracts in the history of the City of Kenosha.

• **Harvey Elmer**, Director of Engineering Services, announced he will be retiring on June 1, 1995, after twenty-five years of service.

• Board of Water Commissioner **Paul J. Raddatz** was recognized for ten years of service on the Board.

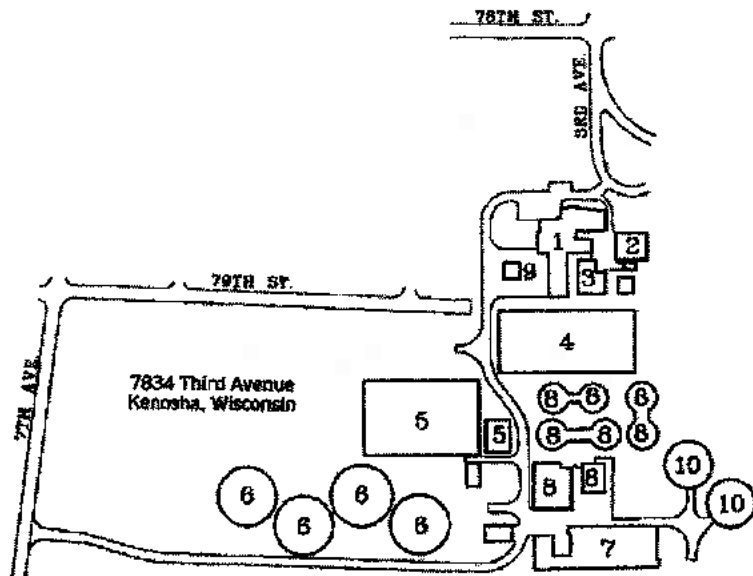
"Providing and Protecting Kenosha's Greatest Natural Resource ..."

- The Board authorized the Kenosha County Historical Society to renovate and place a lantern room on the 1866 Light House.
- The Lead Testing Program, mandated by the United States Environmental Protection Agency, revealed that the Kenosha Water Utility meets all water standards.

- The Kenosha Water Utility received a great number of complaints of odors from neighbors near the Water Pollution Control Plant. Investigation will proceed to determine cause and the Utility will attempt to remedy the problem.
- No cryptosporidium has been detected in Kenosha's drinking water.

- O. Fred Nelson appointed a committee consisting of Lucy Falaschi, Ed St. Peter, Janet Zamsky and Cathy Braak from the Utility and Earlene Frederick, a research historian, to plan the 100 year celebration of the Kenosha Water Utility.

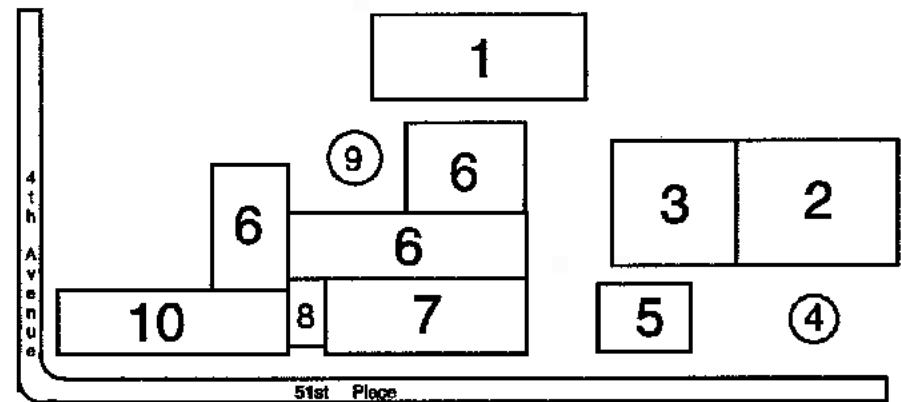
Water Pollution Control Facilities



Legend

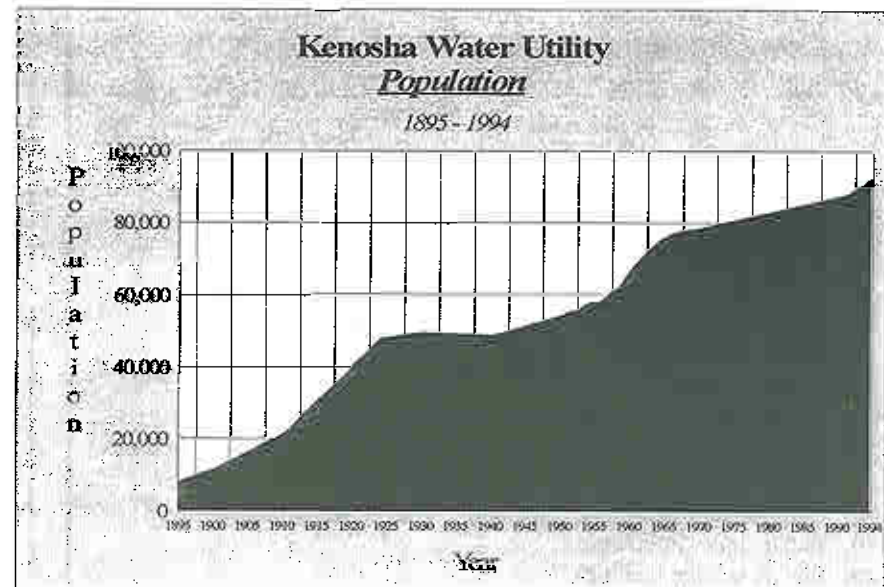
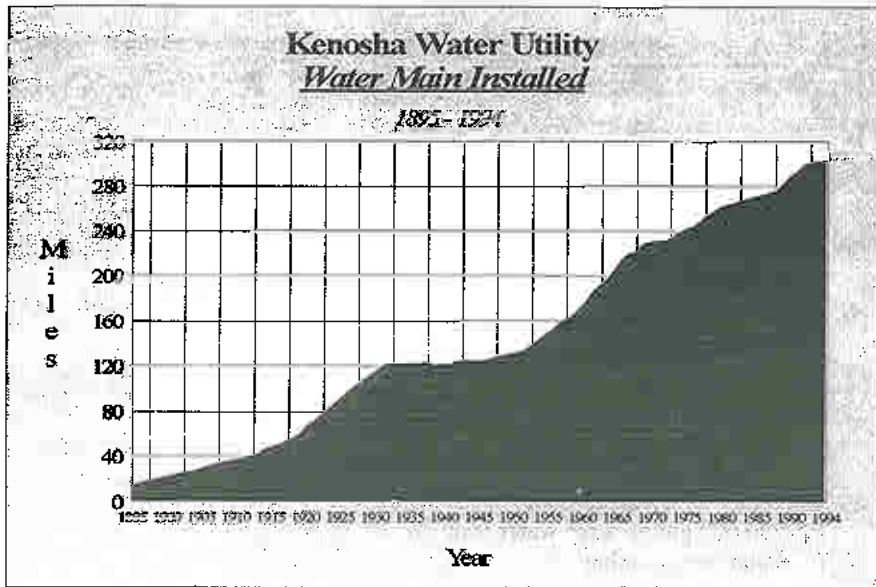
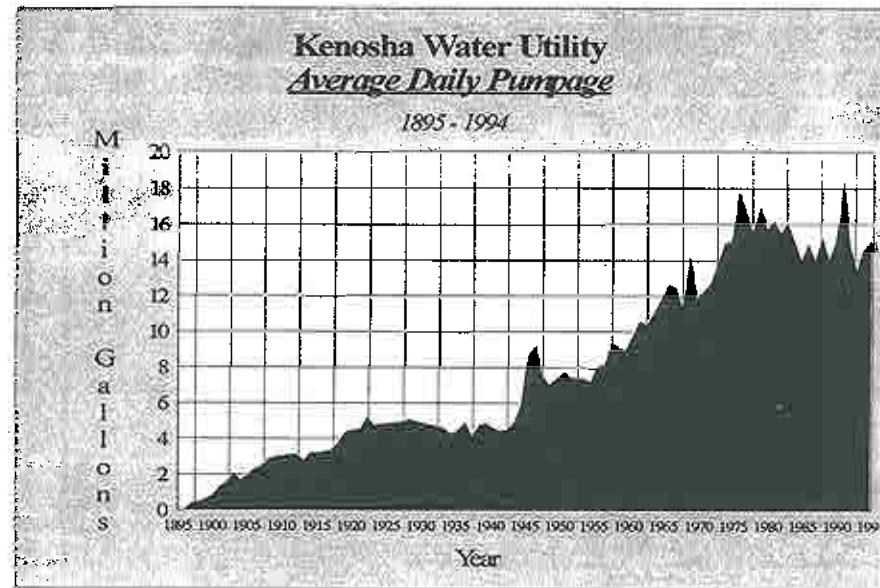
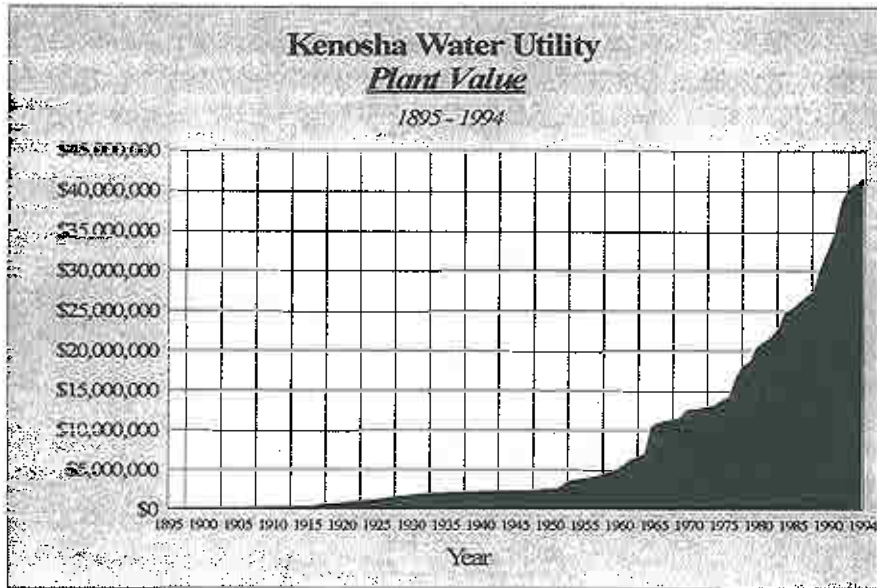
1. Administration and maintenance buildings
2. Raw wastewater pump station
3. Grit removal
4. Primary clarifiers
5. Activated sludge process (aeration tanks and blowers)
6. Final clarifiers and activated sludge pumps
7. Chlorination system and chlorine contact tanks
8. Sludge handling system (thickening, digestion and dewatering)
9. Pickle liquor building
10. Sludge storage facilities

Water Purification and Pumping Facilities

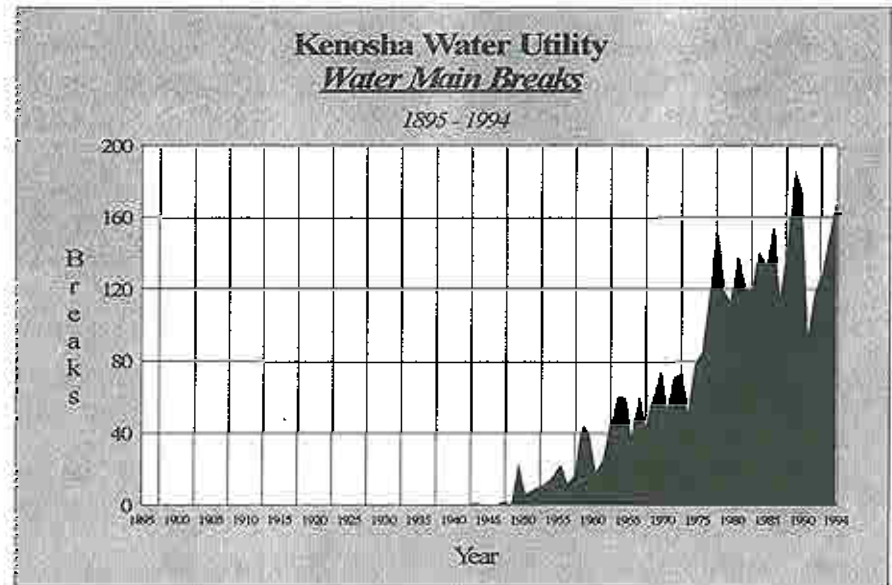
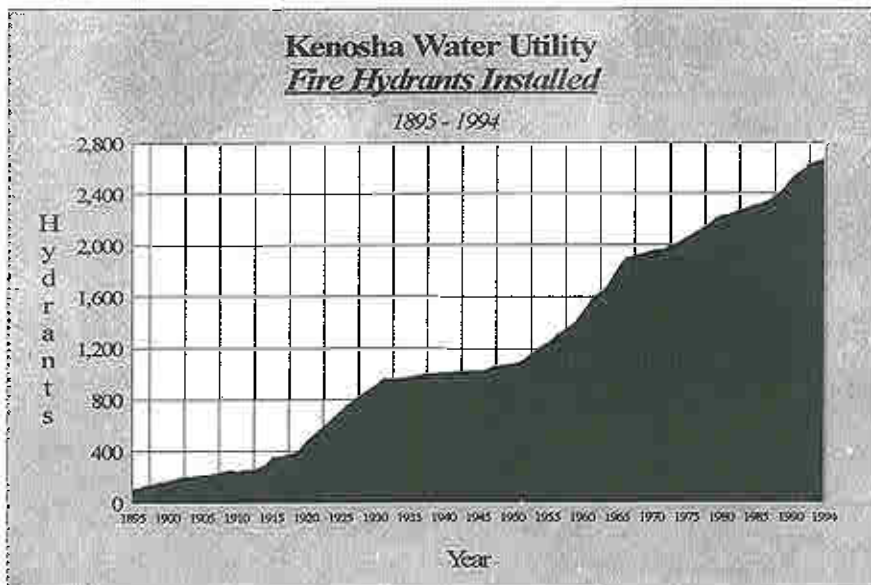
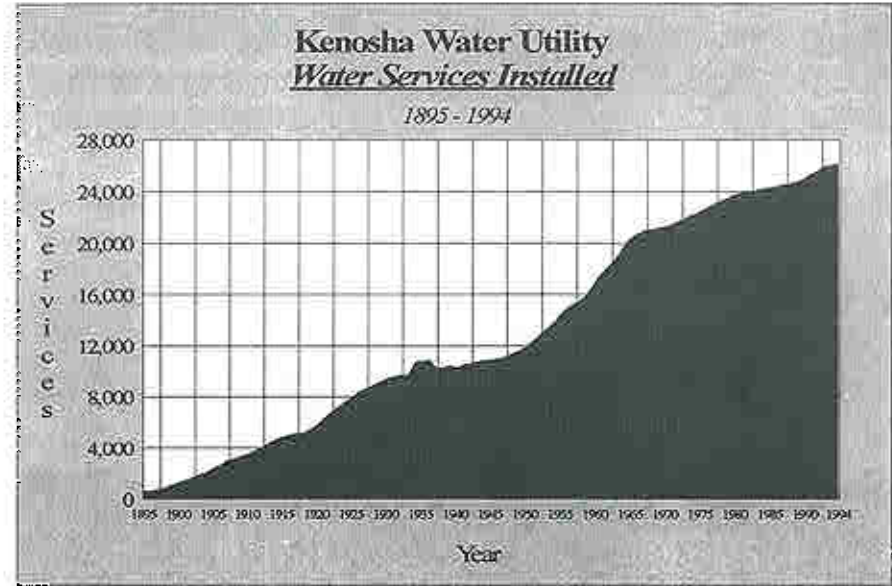
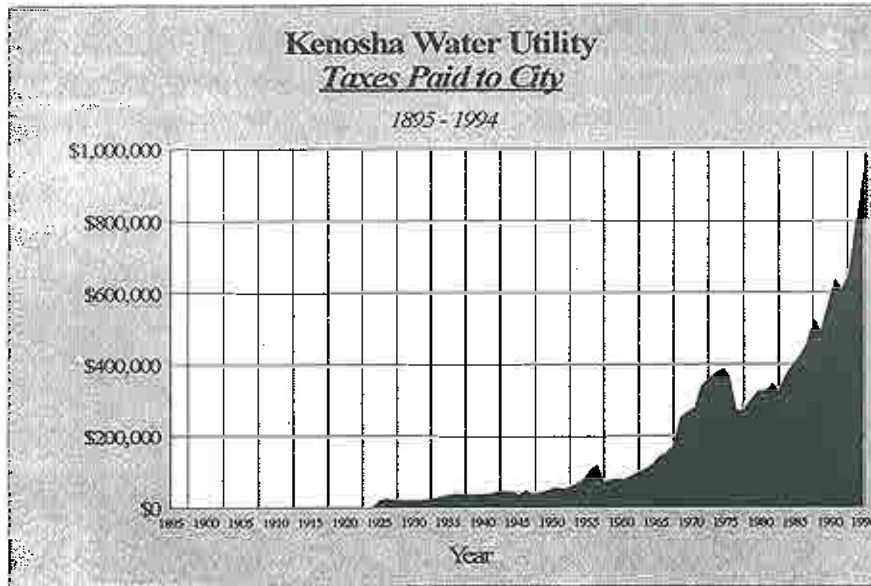


Legend

1. 2.5 million gallon finished water reservoir (underground)
2. East plant settling basins
3. East plant filters
4. Low lift pump station (round house)
5. Waste wash water tank (underground)
6. West plant settling basins
7. West plant filters
8. Operator's control room
9. 250,000 gallon wash water tank
10. Main pump station



"Providing and Protecting Kenosha's Greatest Natural Resource ..."



Kenosha Water Utility

Mayors, City Managers, General Managers & Commissioners

<u>Year</u>	<u>Mayor/City Manager</u>	<u>General Manager</u>	<u>Commissioner</u>	<u>Commissioner</u>	<u>Commissioner</u>
1895	W. M. Farr	John Davidson	O. M. Calkins	John B. Kupfer	John O'Donnell
1896	W. M. Farr	John Davidson	O. M. Calkins	John B. Kupfer	John O'Donnell
1897	F. C. Culley	John Davidson	O. M. Calkins	John B. Kupfer	John O'Donnell
1898	Ossian M. Pettit	John Davidson	O. M. Calkins	John B. Kupfer	John O'Donnell
1899	James Gorman	Robert H. Moth	O. M. Calkins	E. R. Head	John O'Donnell
1900	James Gorman	Robert H. Moth	O. M. Calkins	E. R. Head	John O'Donnell
1901	James Gorman	Robert H. Moth	O. M. Calkins	E. R. Head	John O'Donnell
1902	Charles H. Pfennig	Robert H. Moth	Matthias Greenwald	E. R. Head	James S. Barr
1903	Charles H. Pfennig	Robert H. Moth	Matthias Greenwald	E. R. Head	James S. Barr
1904	James Gorman	Robert H. Moth	Matthias Greenwald	James H. Charles	James S. Barr
1905	James Gorman	Robert H. Moth	Matthias Greenwald	James H. Charles	James Gorman
1906	James Gorman	Robert H. Moth	Matthias Greenwald	James H. Charles	James Gorman
1907	James Gorman	Robert H. Moth	Matthias Greenwald	James H. Charles	James Gorman
1908	Mithias J. Scholey	Robert H. Moth	Matthias Greenwald	James H. Charles	James Gorman
1909	Mithias J. Scholey	Robert H. Moth	Matthias Greenwald	James H. Charles	James Gorman
1910	Mithias J. Scholey	Robert H. Moth	Matthias Greenwald	George Higley	James Gorman
1911	Mithias J. Scholey	August Baltzer	Matthias Greenwald	Frank J. Grasser	James Gorman
1912	Dan O. Head	August Baltzer	Matthias Greenwald	George Higley	James Gorman
1913	Dan O. Head	B. C. Brennan	Matthias Greenwald	Frank J. Grasser	George Higley
1914	Mithias J. Scholey	B. C. Brennan	Matthias Greenwald	Frank J. Grasser	John Hegeman
1915	Mithias J. Scholey	B. C. Brennan	John L. Milligan	Frank J. Grasser	John Hegeman
1916	Charles H. Pfennig	B. C. Brennan	John L. Milligan	Frank J. Grasser	John Hegeman
1917	Charles H. Pfennig	B. C. Brennan	John L. Milligan	Frank J. Grasser	John Hegeman
1918	John G. Joachim	B. C. Brennan	John L. Milligan	Frank J. Grasser	John Hegeman
1919	John G. Joachim	B. C. Brennan	John L. Milligan	Frank J. Grasser	Jacob Zimmerman
1920	John G. Joachim	Peter Hurtgen	John L. Milligan	Frank J. Grasser	Jacob Zimmerman
1921	John G. Joachim	Peter Hurtgen	John L. Milligan	Frank J. Grasser	Jacob Zimmerman
1922	John G. Joachim	Peter Hurtgen	John L. Milligan	Frank J. Grasser	Jacob Zimmerman
1923 *	C. M. Osborn	Peter Hurtgen	*C. M. Osborn		
1924	C. M. Osborn	Peter Hurtgen	C. M. Osborn		
1925	C. M. Osborn	Peter Hurtgen	C. M. Osborn		
1926	C. M. Osborn	Peter Hurtgen	C. M. Osborn		
1927	C. M. Osborn	Peter Hurtgen	C. M. Osborn		

* City Manager form of government began April 18, 1922 through 1957. The City Manager was also the Board of Water Commissioners.

Kenosha Water Utility

Mayors, City Managers, General Managers & Commissioners

Year	Mayor/City Manager	General Manager	Commissioner	Commissioner	Commissioner	Commissioner	Commissioner
1928	William E. O'Brien	Peter Hurtgen	William E. O'Brien				
1929	William E. O'Brien	Peter Hurtgen	William E. O'Brien				
1930	William E. O'Brien	Peter Hurtgen	William E. O'Brien				
1931	William E. O'Brien	Peter Hurtgen	William E. O'Brien				
1932	William E. O'Brien	Peter Hurtgen	William E. O'Brien				
1933	H. C. Laughlin	Peter Hurtgen	H. C. Laughlin				
1934	H. C. Laughlin	Robert Smith	H. C. Laughlin				
1935	H. C. Laughlin	Robert Smith	H. C. Laughlin				
1936	H. C. Laughlin	Robert Smith	H. C. Laughlin				
1937	H. C. Laughlin	Robert Smith	H. C. Laughlin				
1938	H. C. Laughlin	Robert Smith	H. C. Laughlin				
1939	H. C. Laughlin	Robert Smith	H. C. Laughlin				
1940	H. C. Laughlin	James Meyers	H. C. Laughlin				
1941	LeRoy Wolfe, Sr.	James Meyers	LeRoy Wolfe, Sr.				
1942	James G. Wallace	James Meyers	James G. Wallace				
1943	James G. Wallace	James Meyers	James G. Wallace				
1944	James G. Wallace	James Meyers	James G. Wallace				
1945	James G. Wallace	James Meyers	James G. Wallace				
1946	James G. Wallace	James Meyers	James G. Wallace				
1947	A. E. Axtell	H. T. Rudgal	A. E. Axtell				
1948	A. E. Axtell	H. T. Rudgal	A. E. Axtell				
1949	A. E. Axtell	H. T. Rudgal	A. E. Axtell				
1950	A. E. Axtell	H. T. Rudgal	A. E. Axtell				
1951	A. E. Axtell	C. R. Nicolazzo	A. E. Axtell				
1952	R. H. Custer	C. R. Nicolazzo	R. H. Custer				
1953	R. H. Custer	C. R. Nicolazzo	R. H. Custer				
1954	R. H. Custer	C. R. Nicolazzo	R. H. Custer				
1955	R. H. Custer	C. R. Nicolazzo	R. H. Custer				
1956	R. H. Custer	C. R. Nicolazzo	R. H. Custer				
1957	R. H. Custer	C. R. Nicolazzo	R. H. Custer				
1958	Eugene Hammond	C. R. Nicolazzo	Dr. Vernon Boyle, Chairman	Leslie T. Fonk	Joseph C. Safago	John S. Tondryk	Even K. Weyrauch
1959	Eugene Hammond	C. R. Nicolazzo	Dr. Vernon Boyle, Chairman	Leslie T. Fonk	Joseph C. Safago	John S. Tondryk	Even K. Weyrauch
1960	Eugene Hammond	O. Fred Nelson	Dr. Vernon Boyle, Chairman	Wallace E. Burkee	Joseph C. Safago	John S. Tondryk	Anthony J. Vitkus
1961	Eugene Hammond	O. Fred Nelson	Dr. Vernon Boyle, Chairman	Wallace E. Burkee	Joseph C. Safago	John S. Tondryk	Anthony J. Vitkus
1962	Eugene Hammond	O. Fred Nelson	Edward Flug, Chairman	Mario T. Capponi	John H. Finley	John S. Tondryk	Mary L. Smith
							George S. Ward



Mayors 1958 - 1995

(left) John Antaramian, Paul Saftig, Wallace Burkee, Patrick Moran, Eugene Hammond.
(not pictured) John Biloti, Eugene Dorff.

Kenosha Water Utility

Mayors, City Managers, General Managers & Commissioners

Year	Mayor	General Manager	Commissioner	Commissioner	Commissioner	Commissioner	Commissioner	Commissioner
1963	Eugene Hammond	O. Fred Nelson	Edward Flug, Chairman	Mario T. Capponi	John H. Finley	John S. Tondryk	Mary L. Smith	George S. Ward
1964	Eugene Hammond	O. Fred Nelson	George S. Ward, Chairman	Mario T. Capponi	Robert Bertling	Robert F. Kessler	Mary L. Smith	William H. Miller
1965	Eugene Hammond	O. Fred Nelson	George S. Ward, Chairman	Mario T. Capponi	Robert Bertling	Robert F. Kessler	Mary L. Smith	William H. Miller
1966	Eugene Hammond	O. Fred Nelson	Peter J. Curi, Chairman	George S. Ward	John J. Ward	Robert F. Kessler	John S. Tondryk	William H. Miller
1967	Eugene Hammond	O. Fred Nelson	Peter J. Curi, Chairman	George S. Ward	John J. Ward	Robert F. Kessler	John S. Tondryk	William H. Miller
1968	Wallace E. Burkee	O. Fred Nelson	Fred J. Moeller, Chairman	George S. Ward	John J. Ward	Joseph R. Borden	Alvin G. Hoffman	Eugene Llanas
1969	Wallace E. Burkee	O. Fred Nelson	Fred J. Moeller, Chairman	George S. Ward	John J. Ward	Joseph R. Borden	Alvin G. Hoffman	Eugene Llanas
1970	Wallace E. Burkee	O. Fred Nelson	Fred J. Moeller, Chairman	George S. Ward	Frank J. Bennett	Robert J. Ludwig	Alvin G. Hoffman	Peter P. Nedweski
1971	Wallace E. Burkee	O. Fred Nelson	Fred J. Moeller, Chairman	George S. Ward	Frank J. Bennett	Robert J. Ludwig	Alvin G. Hoffman	Peter P. Nedweski
1972	Wallace E. Burkee	O. Fred Nelson	Frank J. Bennett, Chairman	Donald S. Lambrecht	William S. Pocan	Earle G. Scoville	Alvin G. Hoffman	Peter P. Nedweski
1973	Wallace E. Burkee	O. Fred Nelson	Frank J. Bennett, Chairman	Donald S. Lambrecht	William S. Pocan	Earle G. Scoville	Alvin G. Hoffman	Peter P. Nedweski
1974	Wallace E. Burkee	O. Fred Nelson	Earle G. Scoville, Chairman	Donald S. Lambrecht	William S. Pocan	Frank J. Bennet	Alvin G. Hoffman	Peter P. Nedweski
1975	Wallace E. Burkee	O. Fred Nelson	Donald S. Lambrecht, Chairman	Gerald F. Bellow	William S. Pocan	Earle G. Scoville	Frank Schliesmann	Robert C. Boettcher
1976	Wallace E. Burkee	O. Fred Nelson	Donald S. Lambrecht, Chairman	Gerald F. Bellow	William S. Pocan	Earle G. Scoville	Frank Schliesmann	Robert C. Boettcher
1977	Paul Saftig	O. Fred Nelson	Donald S. Lambrecht, Chairman	Gerald F. Bellow	William S. Pocan	Earle G. Scoville	Frank Schliesmann	Robert C. Boettcher
1978	Paul Saftig	O. Fred Nelson	Gerald F. Bellow, Chairman	Donald S. Lambrecht	William S. Pocan	Albert Frank	Michael J. Stancato	William H. Birkholz
1979	Paul Saftig	O. Fred Nelson	William S. Pocan, Chairman	Stephen M. Kudella	Gerald F. Bellow	Alfred W. Andreucci	Michael J. Stancato	William H. Birkholz
1980	Paul Saftig	O. Fred Nelson	William H. Birkholz, Chairman	Stephen M. Kudella	Gerald F. Bellow	Alfred W. Andreucci	Michael J. Stancato	William S. Pocan
1981	John D. Billotti	O. Fred Nelson	William H. Birkholz, Chairman	Stephen M. Kudella	Gerald F. Bellow	Alfred W. Andreucci	Michael J. Stancato	William S. Pocan
1982	John D. Billotti	O. Fred Nelson	William H. Birkholz, Chairman	Stephen M. Kudella	Gerald F. Bellow	Alfred W. Andreucci	Michael J. Stancato	William S. Pocan
1983	John D. Billotti	O. Fred Nelson	Stephen M. Kudella, Chairman	John R. Madison	Nancy L. Principe	Donald E. Andreoli	Emanuel E. Rizzo	William S. Pocan
1984	John D. Billotti	O. Fred Nelson	Stephen M. Kudella, Chairman	John R. Madison	Nancy L. Principe	Donald E. Andreoli	Emanuel E. Rizzo	William S. Pocan
1985	John D. Billotti	O. Fred Nelson	Stephen M. Kudella, Chairman	Paul J. Raddatz	Nancy L. Principe	Donald E. Andreoli	Emanuel E. Rizzo	George Fitchett
1986	John D. Billotti	O. Fred Nelson	Paul J. Raddatz, Chairman	Stephen M. Kudella	Eugene J. Dorff	Gregg N. Guttormsen	Emanuel E. Rizzo	George Fitchett
1987-A	John D. Billotti	O. Fred Nelson	Paul J. Raddatz, Chairman	Stephen M. Kudella	Eugene J. Dorff	Gregg N. Guttormsen	Emanuel E. Rizzo	George Fitchett
1987-B	Eugene J. Dorff	O. Fred Nelson	Paul J. Raddatz, Chairman	Stephen M. Kudella	Gerald F. Bellow	Gregg N. Guttormsen	Emanuel E. Rizzo	George Fitchett
1988	Eugene J. Dorff	O. Fred Nelson	Paul J. Raddatz, Chairman	Michael J. Serpe	Charles W. Bradley	Ricky A. Herrmann	Emanuel E. Rizzo	George Fitchett
1989	Patrick E. Moran	O. Fred Nelson	Paul J. Raddatz, Chairman	Michael J. Serpe	Charles W. Bradley	Ricky A. Herrmann	Emanuel E. Rizzo	George Fitchett
1990	Patrick E. Moran	O. Fred Nelson	Emanuel E. Rizzo, Chairman	Paul J. Raddatz	Charles W. Bradley	Lynn Bellow	Bruce C. Fox	John W. Nowell
1991	Patrick E. Moran	O. Fred Nelson	Emanuel E. Rizzo, Chairman	Paul J. Raddatz	Charles W. Bradley	Lynn Bellow	Bruce C. Fox	John W. Nowell
1992	Patrick E. Moran	O. Fred Nelson	Emanuel E. Rizzo, Chairman	Paul J. Raddatz	Charles W. Bradley	Lynn Bellow	Jeffrey A. Gentz	Stephen P. Casey
1993	John M. Antaramian	O. Fred Nelson	Emanuel E. Rizzo, Chairman	Paul J. Raddatz	Charles W. Bradley	Lynn Bellow	Jeffrey A. Gentz	Stephen P. Casey
1994	John M. Antaramian	O. Fred Nelson	Emanuel E. Rizzo, Chairman	Paul J. Raddatz	Charles W. Bradley	Lynn Bellow	Everett C. Butler	Stephen P. Casey
1995	John M. Antaramian	O. Fred Nelson	Emanuel E. Rizzo, Chairman	Paul J. Raddatz	Charles W. Bradley	Lynn Bellow	Everett C. Butler	Stephen P. Casey

Board of Water Commissioners 1919 & 1995



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Board of Water Commissioners - 1919

(above from left) **Jacob Zimmerman, Frank J. Grasser and John L. Milligan**

Board of Water Commissioners - 1995

(top left) **Emanuel E. Rizzo - Chairman of the Board, Wanda Lynn Bellow, Charles W. Bradley,**
(top right) **Everett C. Butler, Stephen P. Casey, Paul J. Raddatz**





1995 Organizational Chart

