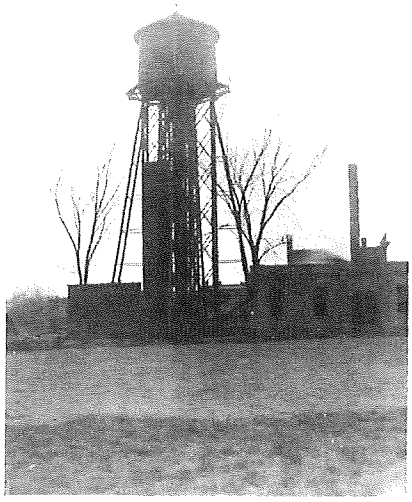
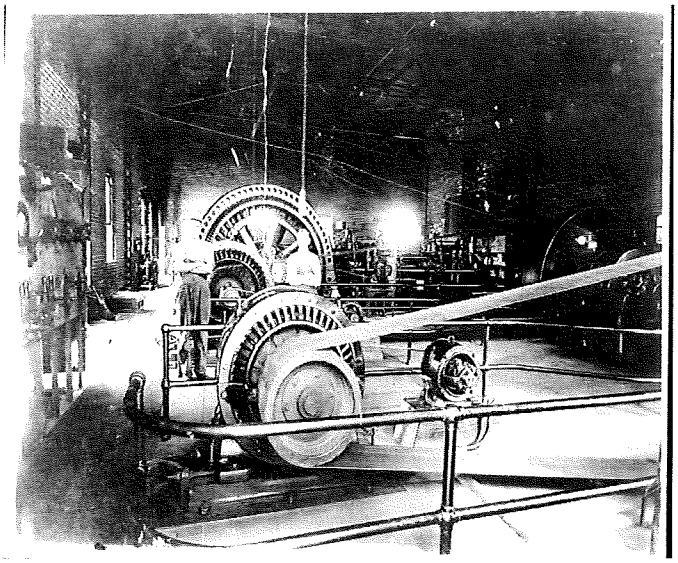
Electric Department History

In 1890 Fairmont was entirely lighted with kerosene. Even the streets downtown had wood posts on the corner with kerosene lamps for street lighting. A man was employed to light these lamps each evening and extinguish them the next morning. His official title was that of Village Lamplighter.

In 1890 Byron E. and Victor St. John built the first light plant in Fairmont, located on the corner of First and Park Street. The first light plant was put into operation in a shed adjoining the blacksmith's shop. This plant consisted of a steam engine connected to a steam boiler, which for some time was fired with flax straw, as coal was hard to get and straw was very plentiful. The engine and boiler drove a DC generator of 110 volts and had very small capacity. The plant was started up each evening about dusk and ran until 10 o'clock. In 1895, with the demand for power rising, the plant was run until 11 o'clock, then 12 midnight. The power plant supplied electrical current to the business places only, and a few corners in the downtown were lighted, replacing the old kerosene lamps. The cost of electrical service until 9 pm would cost you 60 ¢ per month. Service until 10:30 would cost 70 ¢ and it would cost 90 ¢ if you wanted electricity until midnight. In January 1897 the power-house burned and Fairmont was entirely without electricity until June when the building and dynamos were repaired.



First power plant - constructed in 1890. Located on the corner of First and Park Street.

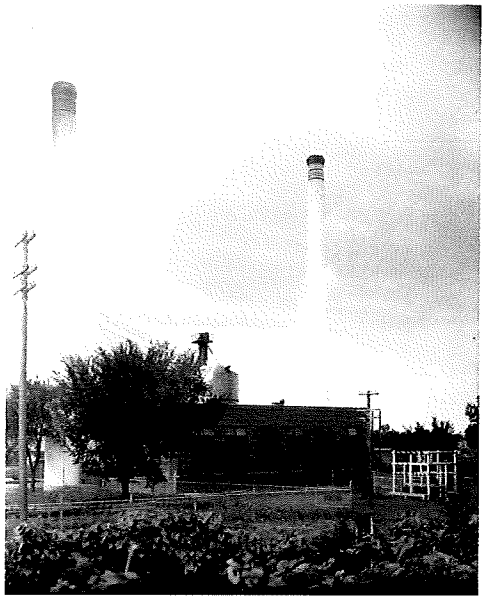


In 1902 the electric current was changed from DC to AC. This was done because of the lower voltage of DC current and the limited area that could be served. At this time a 55 kW and 100 kW generators were installed. On April 5, 1902 the City of Fairmont purchased the power plant from the St. John brothers for $2,800. One week later, on April 9, 1902, Mr. A. D. Horne was hired as superintendent, serving until the time of his death in 1920. In 1907 a 165 kW generator was purchased. The 55 kW, 100 kW and the new 165 kW engines were used until 1910, when a 350 kW unit was added. No other changes were ever made to this plant.

Power Plant in 1904 - Harry Lowe and Charley Jones, stand next to the "Mighty Buckeye" 40 hp engine, whose flywheel turned at 300 revolutions per minute. This unit was hand fired using coal for fuel.

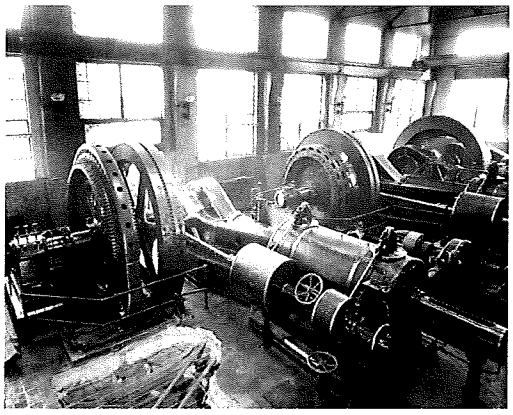
The electric load grew considerably, and in January, 1906 all night electrical service was made available. The popularity of electrical use continued to grow. In 1908 the plant was operated on Monday and Tuesday mornings for washing and ironing. About 1910, 24 hour service was started providing continuous electrical service. In 1915 the North Avenue streetlights were installed.

Power Plant Built in 1920 on George Lake

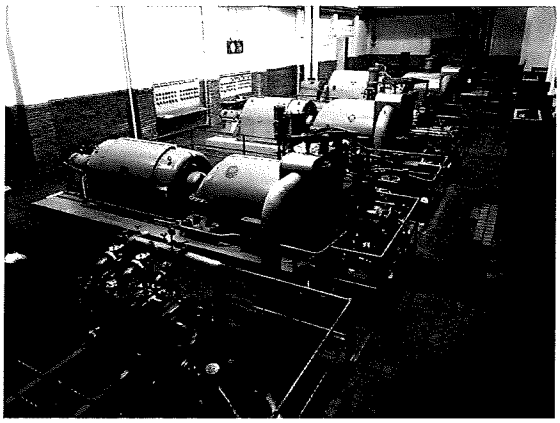


George Lake Plant – 1930's

With the ever-increasing demand for electricity, the city abandoned the old plant on First Street and built a new plant on George Lake in 1920 at a cost of between $35 and $40 thousand. Two turbines were installed at a cost of $20 thousand each. Over the years the power plant has been expanded several times with additions being built in 1930, 1949, 1959 and the final addition being constructed in 1975.



First generators at George Lake Power Plant - 1920

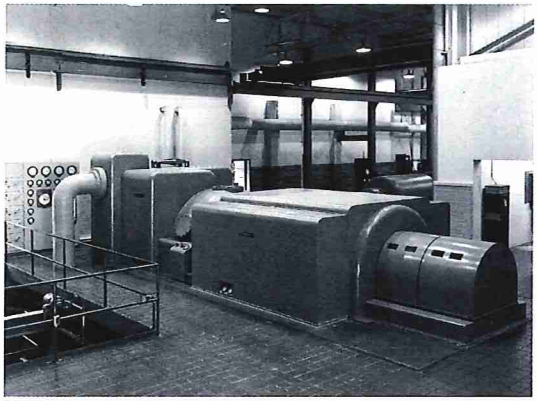


Steam turbine room taken in 1949

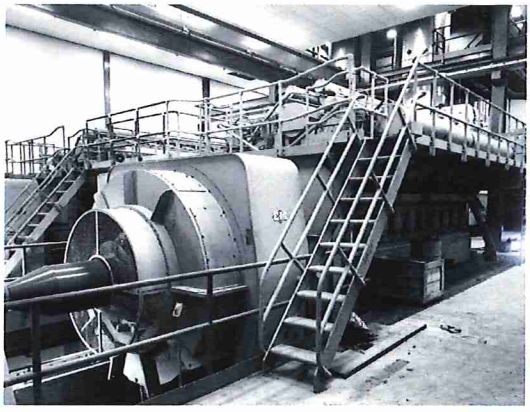
In 1935 the first steam turbine was installed at a cost of $66,000. Four years later, in 1939 a second turbine was added at a cost of $108,000. Both of these units have since been removed from service. In 1945 the # 3 turbine was installed at a cost of $313,000 and unit # 4 was installed 4 years later in 1949 at a cost of $372,000. Both of these units are 5,000 kW turbines and are still in use today. With the increase in electrical requirements unit # 5, a 12,500 kW turbine, was installed in 1959 at a cost of $790,000. The final addition to the plant occurred in 1975 with the purchase of two (2) diesel generators, units # 6 and # 7. The total cost of diesels, building and related equipment amounted to $5,000,000.

The original plant used coal to create steam to generate electricity. Coal was brought in by rail and stock piled for later use. Coal was burned in the boilers to create steam to turn the turbines and create electricity. In the early years, through the mid 80's, steam was extracted from the steam turbines for the district heating system. In 1997 the utility converted the coal boilers over to natural gas and discontinued the use of coal. The primary reason for this conversion was the clean air requirements that the utility needed to meet in order to be in compliance with Federal requirements. It was not economically feasible to make the necessary changes required by law and continue burning coal. Another source of fuel, # 6 fuel oil, was burned in the boilers to create electricity until 1988, when the oil tank was removed and the boilers were converted to use only natural gas. Over the years the generation equipment has changed dramatically, from the first steam units of the 20's to the steam turbines of the 40's to the diesel engines installed in 1975. As the need for electricity increased, the utility saw to it that the generation capacity was there to handle the needs of the community.

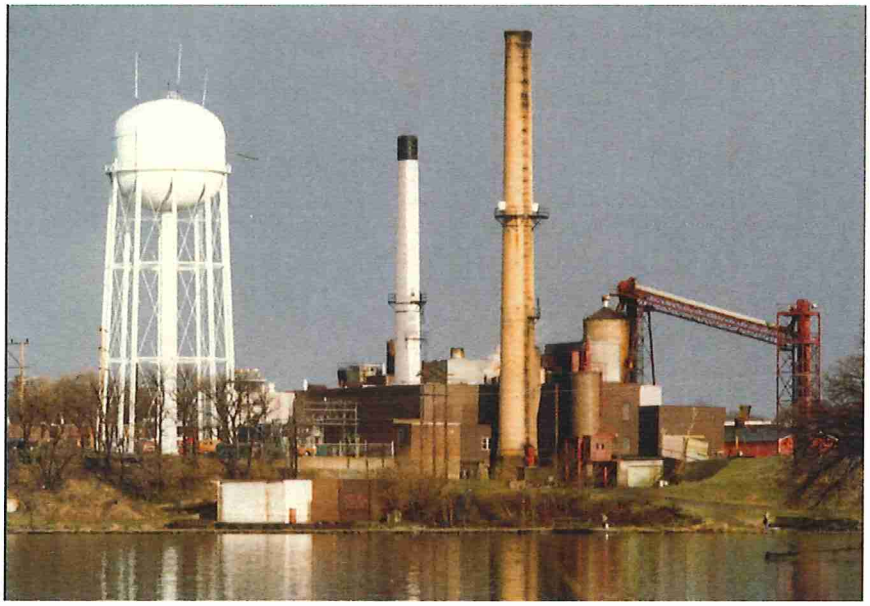
Coal pile taken in 1962 with 8,400 tons of coal ready to be burned.



Steam Turbine installed - 1959



Diesel Engine # 7 installed - 1975



Power Plant photo taken from George Lake – 1990's

Over the years the Fairmont power plant generated electricity 24 hours per day. In the early 1980's it was determined that Fairmont was facing an energy shortage, along with other municipal utilities in southern Minnesota. As a result, the Southern Minnesota Municipal Power Agency was created. This Joint Action Agency, made up of 13 municipal utilities in southern Minnesota, decided that it was easier to tackle the generation shortage as a group instead of each community building a power plant of its own. Les Madsen, a former General Manager of the Fairmont PUC, was instrumental in the development of SMMPA and served on the Board of Directors from 1977 until his retirement from the Fairmont PUC in 1980. In November 1982 the City of Fairmont officially joined SMMPA. The agency expanded to 18 members with the merger of SMMPA and the 5 members of UMMPA on September 20, 1984. In 1987 the idea behind SMMPA, to own its own generation plant, became a reality with the construction of the 800 MW, SHERCO 3 power plant in Becker, MN. The city now purchases all our electricity from SMMPA. In 1988 the Fairmont power plant was scheduled to shut down. A life of unit contract was signed with SMMPA for total operational control of the Fairmont plant. The power plant is now operated, mostly during the summer months, when the need for electricity is the greatest. As a result of the contract, SMMPA pays for all labor, and maintenance costs at the power plant. The signing of this contract has insured that Fairmont will have backup generation, in case of an outage on the transmission lines to Fairmont. The foresight of the Fairmont PUC and City Council in the early 1980's has insured that the City of Fairmont has an ample supply of electricity at a reasonable rate for many years to come..

When the Fairmont power plant was generating all of Fairmont's power needs, the plant was staffed with twenty-three (23) employees. That number has now been reduced to sixteen (16). A plant operator is on duty twenty-four hours a day, seven days a week, monitoring the electrical system and producing low pressure steam for the district heating system.

Randy Pierce – monitoring the electrical control panel at the power plant

Steve Fosness – monitors boiler operations with computerized monitoring system.

In the early years monitoring of the equipment in the plant had to be physically inspected by employees during the operating of the plant. The monitoring is now being handled through the Supervisory Control and Data Acquisition (SCADA) system. The SCADA system is a computer network, which monitors the electrical system, with devices located throughout the power plant as well as the transmission and distribution systems. Alarms, which may have occurred on the system, are sent back to the SCADA computer with information as to the type and location of problems. This allows workers in the plant, or lineman on the distribution system, to correct the problem in a minimum amount of time. Many of the manual boiler controls in the power plant have been replaced with a new computer control system. The boiler operators can now monitor vital points on the boiler that improve the efficiency of the boiler as well as notify the operator of potential problems in the boilers. With increased efficiencies made throughout the system and with the addition of load management, the City of Fairmont has been able to keep electrical costs down.

Electricity that enters Fairmont by way of the transmission system at 69,000 volts, is directed to one of the three substations located at 10th Street substation, East Chain substation and the power plant. From these substations the voltage is reduced to 12,500 volts and sent throughout the distribution system.

10th Street Substation built in 1986

East Chain Substation built in 1987

Over the years the electrical distribution system has changed dramatically. With increased electrical requirements, larger distribution wires have been installed. Many safety features have been installed throughout the distribution system to protect, not only the line workers, but also our customers and the electrical devices in their homes and businesses. One of the biggest changes has been in the equipment used by the lineman, from the vehicles they drive to the tools they use. In years past, many of the repairs had to be completed by climbing the utility pole.

Lineman raise a power pole at the old fairgrounds using a block and tackle

Today, lineman raise power poles with the use of a boom truck.

Repairs can now be done with the use of a bucket truck in a quicker and safer manner. Overhead electric lines are now being replaced with underground cable, which reduce outages caused by wind and ice. In addition, placing wires underground helps to improve the aesthetics of the area, and creates a safer environment for area residents. Down through the years the technology has changed from primarily having overhead lines, to trenching in underground. The utility now uses a new technology called directional boring to install electric cable underground with minimal excavation.

Line crew trenching in electric cable.

Marty Meixell operates directional boring machine.

In October 14, 2008 the City of Fairmont received notification from SMMPA for the termination of the Life of Unit Contract for the Fairmont Power Plant would take effect on December 31, 2009.

In April 2009 the city participated in a joint study with other SMMPA communities to determine if it was in the best interest of the city to extend the Power Sales Contract with SMMPA beyond 2030. Following the study presentation, the City of Fairmont voted to extend the Power Sales Contract with SMMPA through the year 2050.

With the shut down of the Fairmont Power Plant the Commission felt that the 2 stacks posed a safety hazard. On August 18, 2009 the Commission voted to decommission the steam section of the power plant and remove the 2 stacks at a cost of $232,605.

The Utility was approached by the Truman Public Utilities asking for backup maintenance support by the utility's Electric Distribution Department. An agreement was developed and approved by the Commission in August 2009.

With the shut down of the Fairmont Power Plant, SMMPA approached the City of Fairmont seeking to purchase the power plant for the construction of a new 25 MW spark ignited generation plant. A city referendum was held on August 28, 2010 asking the voters to approve the sale of the Fairmont Power Plant to SMMPA for $1 and other considerations. The referendum passed overwhelmingly. The purchase agreement was signed in April 2011. In addition to the sale SMMPA will pay the city $500,000 for relocation of the Electric Distribution Department Warehouse.

On August 9, 2011 the city purchased the former W Hodgman & Sons property to be used for relocation of the Electric Distribution Warehouse. With this purchase the Line Department will now have the storage capacity to have their inventory stored in one location instead of having items at the Tank Farm west of Fairmont and the cold storage building located on Margaret Street.

Line Department Warehouse

Line Department Storage Yard

Demolition of the warehouse and boiler area of the Fairmont Power Plant began by SMMPA and construction of the new generation facility began. On February 12, 2014 SMMPA dedicated the 25 MW Fairmont Energy Station. The facility will help to increase the reliability of the electric distribution system for many years to come.

Demolition of Line Warehouse

New Fairmont Energy Station Addition

View of 4 Spark Ignited Engines & Generators

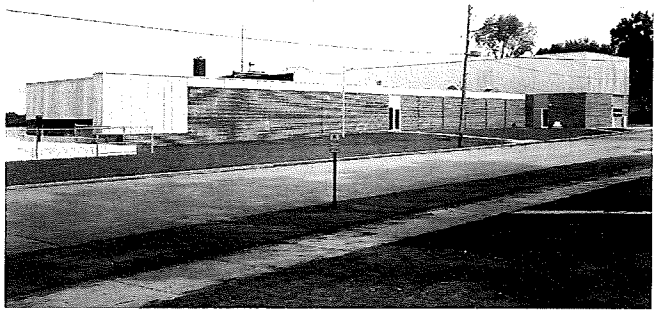
Water Department History

The first source of water for the City of Fairmont was from a well located on First Street. This well was put into operation in 1888. It served the City of Fairmont until 1897, when a new pump house was built at the present location on Budd Lake. The City of Fairmont started using lake water as its water source. In 1926, the first lime/soda ash softening water filtration plant was built to treat the lake water. It served the city until 1954 when a three-phase expansion project was started. Phase one of the project was the construction of a 640,000 gallon clear well, which was completed in 1954. Phase two was the addition of three sand filters located on the south side of the filtration plant, completed in 1957. The third and final phase was the addition of the number 3 mixer, clarifier and the carbon and pre-chlorination tanks

Fairmont's first pump house – built in 1897

located at the North end of the water plant. This expansion project was completed in 1961 and doubled the treatment capacity of the plant to 4,500,000 gallons per day. This is 3,125 gallons of water per minute through the plant. In 1978, the new raw water pump house and raw water intakes were constructed and a well was drilled to provide water for emergency situations.

Original section of plant - built in 1926

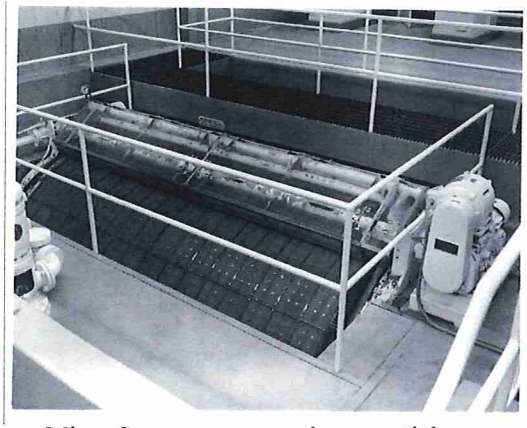


Water Plant Final Phase – Completed in 1961

Water from the well is not used very often because of the hardness of the water. When the well is operated, for testing purposes, water from the well is blended with lake water to lessen the hardness and reduce the cost of treatment of the well water. The following pages will explain in a little more detail the operation of the Fairmont Water Department.

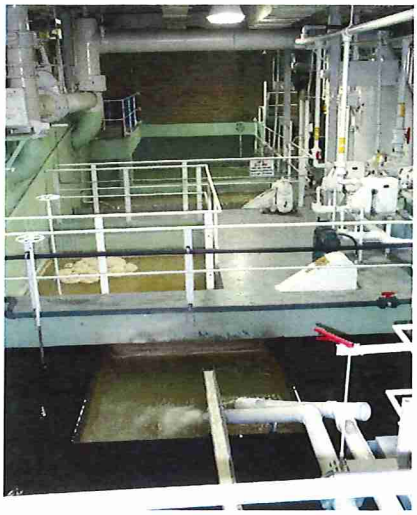
Chemical Treatment Process

During the treatment process water flows from Budd Lake, by gravity into the raw water wet well, where the water is aerated. Potassium permanganate and/or chlorine dioxide are added at this time to help control taste and odor. The water is then pumped to a micro strainer to remove algae and large particles that may interfere with the treatment process.

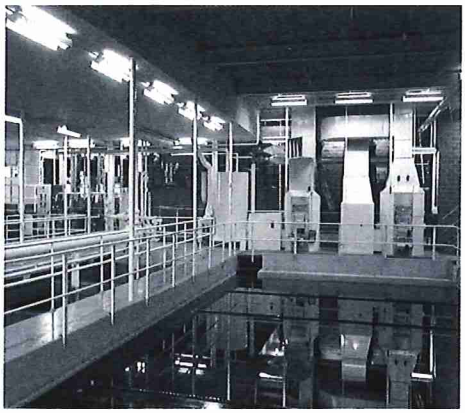


Micro Screen - removes large particles.

Ferric sulfate is added to cause the fine particles to coagulate or clump together making it easier to separate the solids from the water. Activated carbon is added to control taste and odor. The water then goes into a mixing chamber where lime and soda ash are added for softening. Following a thorough mixing the water flows into the clarifier for liquid-solid separation. Heavier solids settle to the bottom of the clarifier and are removed as sludge. The final chemicals that are added are fluoride to help prevent tooth decay, polyphosphate for corrosion control of the distribution system and chlorine to disinfect the water. The water flows to the sand filters where the remaining suspended particles are filtered out. Additional chlorine is added for final disinfection prior to the water leaving the water plant and going into the distribution system. The plant operator, who is on duty 24 hours a day, monitors every stage of the water treatment process. Sampling of the water for testing is conducted throughout the treatment process. It is the responsibility of the chemist at the water plant to test for quality assuring the citizens of Fairmont a 100% safe high quality drinking water.



Chemicals being added



Water Clarifier – Solids Settle Out

Water Flows to the Sand Filters

Arlen Buhmann, water plant chemist testing water for quality & clarity.

In 2002 the City of Fairmont rented 2 – Solarbees, which are aeration devices that circulate water from a depth of 6 feet to the surface. This circulation action helps to improve the oxygen level in the lake and also helps to control the amount of algae in the lake. Later in 2002 an additional 2 Solarbees were added to help increase the effectiveness of the circulation process. In 2004 the utility added 2 more Solarbees bringing the total number to 6.

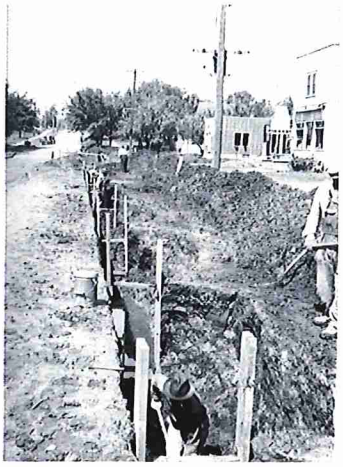
Solarbee Being Prepared for Installation

Solarbee Operational in Budd Lake

Water Distribution System

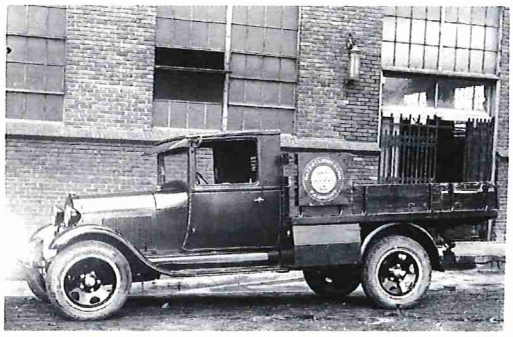
Down through the years many changes have been made in the water distribution system. Years ago cast iron water line had to be dug in by hand. In many cases the trenches were deep and narrow and along with it, the chance of cave in. Much of the equipment that was used in the early years had to be operated by hand. Today the utility uses PVC plastic for water main, which resist corrosion and are as strong and as durable, as the cast iron water main previously used. Maintenance and repairs today must be completed following OSHA standards, to protect the employee and complete the job in a safe and efficient manner. Much of the work is completed using backhoes to dig the trenches and boom trucks to handle the pipe and safety equipment around the work site. The water department crews maintain over 70 miles of distribution mains. The utility's water department works hand in hand with the City of Fairmont's engineering department to determine which water mains are in need of replacement and should be included in the city's street project list.

Water main installation - 9th Street
Lifting boom was operated by hand.



Water main installed by hand on 4th St using wood cribbing

Water main installation on Ninth St.



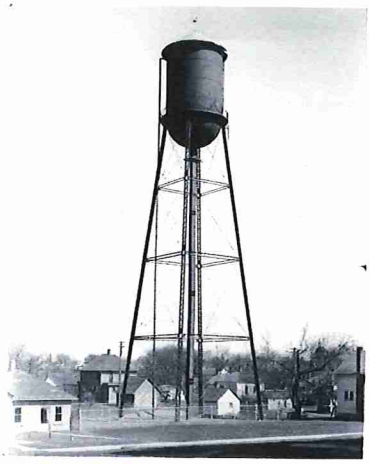
Water Dept truck #12 purchased in 1930's

Water Department crew lowers safety trench box into excavation to protect crew.

Bruce Eversman (top) and George Pierce install repair sleeve on a broken water main.

Down through the years the water department's water storage capacity has expanded. The first water tower, located on the corner of First and Park Street, was placed into service in 1888. This tower was in use until a new water tower was installed on North North Avenue between Seventh and Ninth Streets in 1907 and the old tower was taken down. With continued growth of the city additional water capacity was needed. In 1941 a 500,000 gallon water storage tank was constructed adjacent to the power plant, and is presently still being used. In 1955 a second 500,000 gallon water storage tank was constructed along State Street. It is unclear when the water tower along North North Avenue was taken out of service. In 1972 the ground storage tanks located west of the Martin County Fair grounds was put up for sale by the Borden Chemical Company. It was decided that these tanks could be converted over to water storage and expand the storage capacity for the city. At the present time the City of Fairmont has approximately 4,300,000 gallons of water storage capacity.

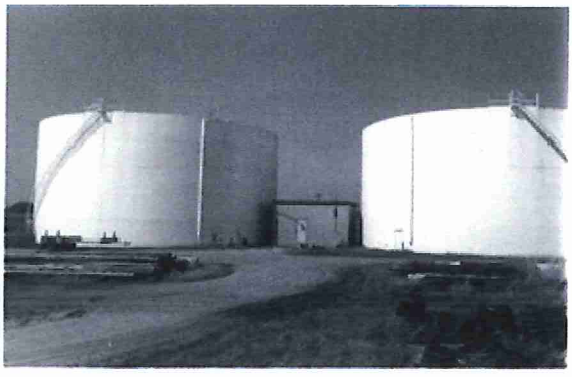
Fairmont's first water tower - 1888



Water tower built in 1907
Located on North North
between Seventh & Ninth St.

Water tower built in
1941 and located by
the power plant.

East water tower
located on State Street
built in 1955.



1.4 million gallon water storage tanks purchased in 1972 to increase water storage capacity in the west industrial park area.

During 2002 the City of Fairmont began construction of a new 1,000,000 gallon water storage tank to be located adjacent to the new Harvest States soy bean crushing facility located Northwest of Fairmont. This will provide sufficient water storage capacity for many years to come. As new regulations are enacted, by the Federal and State government agencies, the water department must make changes to its operation to comply with these regulations. Many times these changes come with a price. The Fairmont Public Utilities will strive to provide the best quality water at an economical price.

New Booster Pump Station constructed in 2003 to improve water pressure in the west industrial park.

1 million gallon storage tank constructed in 2002.

Taste and odor problems have been an issue with Fairmont's water system for many years. In November 2007 the Public Utilities Commission Statement of Qualifications from engineering firms to conduct a facility study of the Fairmont water plant to determine what plan of action was necessary to improve water quality. Advanced Engineering was hired to conduct the study. A pilot study was conducted to determine what measures could be taken to remove taste and odor from Fairmont's water. After much consideration it was determined that a new water plant was the best plan of action instead of trying to upgrade the existing water plant.

In June 2010 a proposal was given to the Fairmont School District for the purchase of the William Budd Elementary School for locating the new water plant. Bids for the new water plant were opened in June 2011 and Rice Lake Construction was awarded the contract to construct the new water plant at a cost of $28,401,600.

Ground breaking ceremony for
Water plant at Budd School Site

Excavation begins on sub level of new
water filtration plant.

Aerial view of water plant construction

Aerial view of construction site

Sub level basins being framed and poured

Wall of the second level basin under
construction. Holes in the wall are
for piping into the basins.

Piping installed in the galley area

Roof panels being put into place

Start up of the new water plant was conducted in June to August 2013. On September 9, 2013 the water plant officially began delivery of water to the distribution system.

Front view of Fairmont Water Plant


Night photo taken by Roger Carlson

On May 15, 2014 the Fairmont Water Plant was officially dedicated with a ribbon cutting ceremony and open house for area citizens. Tours of the new water plant were conducted by water department staff and members of Advanced Engineering.


Ribbon cutting ceremony


Plant tours conducted for area citizens


Citizens give tour of water plant lab

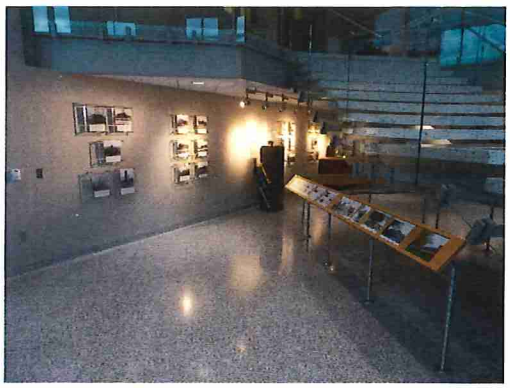


Photo of historical display in front entry

In January 2014 demolition of the old water plant began. The demolition was completed in April 2014. A new retaining wall was installed and landscaping of the grounds was completed, making a nice green space and an area for local fisherman. A fishing dock will be installed in 2015 in conjunction with MN Department of Natural Resources.

Excavator demolishing old water plant

All that remains is the new pump house

Rehabilitation of old water plant site

Blacktop drive to fishing area

Staff is currently working with the MN Pollution Control Agency for the closure of the lime sludge slough located west of Fairmont. These ponds are no longer being used due to the current lime sludge handling system at the new water plant.

Wastewater Department

Fairmont's first wastewater treatment plant consisted of a Imoff tank located adjacent to the present power plant site. It discharged into George Lake and only provided primary treatment. This plant was constructed around 1917 and had a designed capacity of 400,000 gallons per day. With the growth that was taking place in the city and the addition of the Fairmont Canning Company to the industrial waste, a second Imoff tank was added to the system in 1927. In 1934, a single stage trickling filter plant with re-circulation capabilities and anaerobic digestion was constructed. The plant was designed to treat 1,500,000 gallons per day. This treatment plant served the City of Fairmont until 1956 when modifications were made to the plant. A 70 foot primary clarifier, modifications to the trickling filters, a new pump house, digester modification and sludge handling improvements were added to the plant at a cost of $125,000. In 1965 the Federal Legislature passed the Water Quality Act. On September 18, 1968 notification was received from the MN Pollution Control Agency that immediate action was needed to improve the quality of the effluent discharged from the plant. As a result a new plant was constructed in 1973 at a cost of $2 million. The plant was designed to receive flows of approximately 2.34 million gallons per day. Under average daily flows the plant will remove 98% of incoming waste material. With continued growth throughout Fairmont, especially in the south and western parts of town, a problem arose whereby the main collection system, through the central part of Fairmont, was not able to handle the additional wastewater flow. This was especially apparent during times of heavy rain. Many residents in the central part of town received sewage in their basements when the main sewer line could not handle the increased flow. In 1993 an east side sanitary interceptor was constructed to divert flow from the south part of Fairmont around the east side of town, which resulted in less loading of the main sewer line. The cost of this project was $2.3 million. With changes in the discharge standards, into a receiving stream, the MPCA has requested the Wastewater Treatment Plant be updated to meet the new requirements. Plans are underway to upgrade the existing facility in order to remove ammonia and phosphorous from the effluent discharged into Center Creek.

Aerial view of Wastewater Treatment Facility - 1956

Present Wastewater Treatment Facility office and Lab. Constructed in 1973.

The cost of this project has been estimated at $10.168 million. A letter of intent has been sent to the MPCA asking to be placed on the 2003 Intended Use Plan (IUP). If approved Fairmont would be able to receive low cost funding for the expansion project. It is anticipated that a final facility plan will be submitted to the MPCA in August.

Plant Operation

The first step in the treatment process begins immediately when the waste stream enters the treatment facility. The flow goes through a device called a bar screen. This large rotating screen removes any large objects such as rags, sticks, large solids or any other material that finds its way into the sewer collection system. After the bar screen the flow is slowed down to a velocity of one foot per second. This allows sand and other organic matter to settle out of the waste stream and is removed. The wastewater now flows to the two aeration basins. Each basin holds a volume of 319,000 gallons. The majority of the treatment process takes place in these basins. The wastewater is mixed by three large paddle type mixers and air is added to keep the oxygen level in the basins at a point to sustain the micro-organisms in the basins. These micro-organisms attach themselves to the organic matter and digest it. One molecule of water takes about 2 to 4 hours to pass through the basins. From the aeration basins the water flows into the two circular clarifiers. These are large settling tanks where the solids in the flow settle out and the clear treated water flows over the top. Each clarifier has a volume of 311,000 gallons. The settled solids are either returned to the aeration basins to help keep the population of microorganisms in the aeration basin or are pumped to a gravity thickener for later use. The solids that are pumped out of the clarifiers are pumped into the gravity thickener where it has another chance to settle out and dewater. The water goes back through the treatment facility and the solids are pumped into the aerobic digester. The aerobic digester is the same shape and size as the aeration basins and operates much the same except the liquid is much more saturated with solids. Here we mix and add air to further treat the organic material.

Aeration basins where microorganisms break down organic matter.

Clarifier where the solids settle to the bottom and clear water flows over the top to be discharged.

After 15 to 30 days the final product is pumped from the wastewater plant to the sludge drying beds located 3 miles north east of Fairmont. Here the sludge is allowed to dewater further and air dry. The dried sludge is then applied to farm land as a fertilizer.

Chlorine contact chamber. Final stage before water is discharged to Center Creek.

The clear water that leaves the clarifiers flows into the chlorine contact basin. In this basin the water is treated with chlorine. This disinfects the water of pathogens, down to a level that meets swimming standards. Just before the water leaves the chlorine basin it is treated with sulfur dioxide to remove some of the chlorine residual, which can be harmful to aquatic life. The water is then discharged into Center Creek.

Tom Fisch conducting lab tests on samples taken during the wastewater treatment process.

Throughout the entire treatment process tests are being conducted. The water entering the facility (influent) is tested to determine if there are pollutants entering the facility, which may be harmful to the micro-organisms. Various lab tests are conducted during the treatment process to maintain appropriate levels of oxygen to sustain the micro-organisms. Finally there are tests being done on the water being discharged (effluent), to make sure that the water being discharged meets or exceeds the standards that are set by the MPCA. In addition to the lab tests being conducted, key areas of the treatment process are being monitored by a computerized monitoring system. At the present time the collection system consists of over 78 miles of piping ranging in size from 4 inch to 32 inches. There are 31 lift stations located throughout the city. These lift stations pump wastewater from lower elevations, to areas where the water can flow by gravity to the treatment facility. The wastewater treatment facility and collection system are operated and maintained by a department of 6 employees. The City of Fairmont over the past several years has been recognized by the MPCA for meeting or exceeding discharge standards.

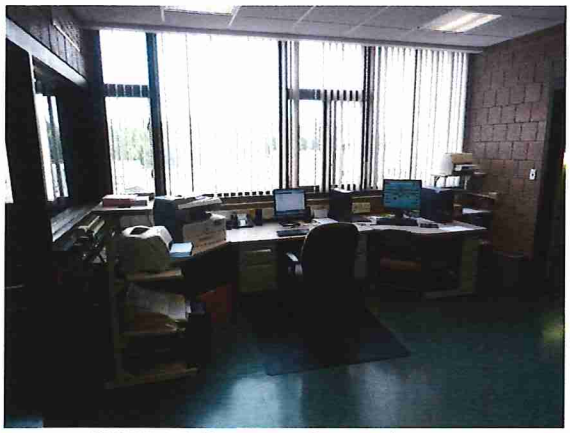
Tom Fisch checks the computerized monitoring system to maintain efficient control of the system

Wastewater Plant Expansion Project

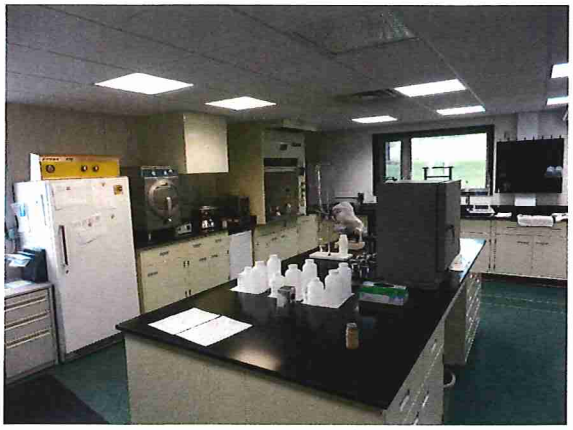
With new regulation being imposed by the MN Pollution Control Agency and Federal EPA changes to the current wastewater treatment facility was in need of upgrading. In December 2001 Howard R. Green was hired to conduct a facility study of the wastewater treatment facility. It was recommended that additional treatment processes needed to be developed to meet the changing environmental requirements. On February 10, 2004 bid were opened with Gridor Construction submitting the low bid of $12,363,900. Work on the construction and additions to the existing plant were begun in April 2004. On October 7, 2006 the wastewater treatment facility was dedicated and an open house was held for area citizens. With the new sludge processing system there was no need for the use of the sludge beds located east of Fairmont. On April 23, 2007 the sludge bed were abandoned and the land was sold to a private individual.

Dedication of the new Wastewater Plant

New Maintenance Garage



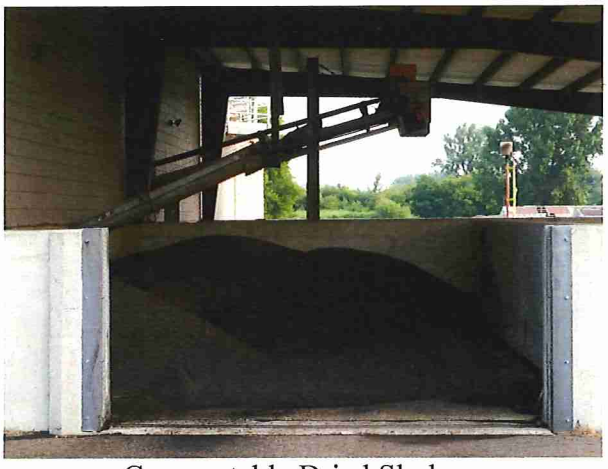
WWTF System Control Room



New WWTF Laboratory

Overview of Wastewater Treatment Facility

Wastewater Facility Processing Facilities



Compostable Dried Sludge

Steam District Heat Department

The Public Utilities District Heating Department started out on February 3, 1920 and was called the Fairmont Public Heating Company. The original corporation sold capital stock in the amount of $200,000 with a value per share of $100. At the first stockholder meeting election of officers were held. Mr. E. H. Fitz was elected President, Mr. Troy E. Himmelman, Vice President, Alfred Horne, was elected Secretary and Mr. H. J. Waite was electric treasurer. Mr. Horne remained on the board until December 1920 when he resigned to become the Utility Director for the Water and Light Commission. Mr. Dowing was hired as the first superintendent at a monthly salary of $300. Later, a service man was added at a wage of $25.00 per week. The steam system was operated by the Fairmont Public Heating Company until March 1, 1939 when operational control of the steam system was taken over by the Water and Light Commission.

The steam system was designed very well using a split duct system to cover the steam mains. The steam mains are actually suspended in the split duct to allow the heat from the main to keep the mains dry instead of having the mains lay directly on the ground. In addition, there was a condensate return line to bring the water from the condensed steam back to the plant to be reused, resulting in a more efficient steam system.

The first steam rates that were established were set at $.85 per 1000 pounds of steam. The rates remained the same until 1927 when a 10% increase was implemented. It was also decided that if the utility bill was paid promptly by the due date, there would be a 10% reduction. This resulted in no increase in steam rates for customers who paid their bills on time. With efficiency in the steam system and the increase of additional customers, the steam heat rates were reduced to $.72 per 1000 pounds and remained at that price until 1948 when the rates increased to $.864 per 1000 pounds.

Steam for the district heating system, was provided by extracting steam from the steam turbines. Steam was used to turn the steam turbines to create electricity. As the high-pressure steam passed through the turbines, a portion of the steam was extracted and used to provide steam to the district heating system. This process was used until 1982 when Fairmont joined the Southern MN Municipal Power Agency (SMMPA) and purchased all of Fairmont electrical needs from SMMPA. It became very inefficient to operate a large boiler to provide steam for the District Heating System. As a result, 2 small low pressure steam boilers were purchased in 1987 to provide low pressure steam to the district heating system. Currently there are 150 steam customers compared to 265 customers in the mid 1960's.

5 Low Pressure Boiler - 350 HP
Purchased in 1987

8 Low Pressure Boiler - 800 HP
Purchased in 1988

In May 2005 discussion took place regarding the shut down of the steam district heating system. With the declining customer base and the condition of the underground steam main system the Commission felt that a decision to shut down the steam system was in the best interest of the Utility. On May 24, 2005 TSP Engineering was hired to conduct a study of the steam heating system. In July 2005 a public meeting was held to inform the current customer of the finding by TSP Engineering and their recommendation to shut down the heating system. The Commission established a Seasonal Heat Rate for customers that convert from steam heat to electric heat. This rate would be in effect from September through April. A grant program was established in January 2006 to provide financial assistance to customers converting over from the steam system to either electric or natural gas heating system. The program would reimburse customer up to 50% of the retrofit cost for converting to electric heat or electric boilers and 20% reimbursement for customer converting to natural gas. There was a maximum reimbursement of $50,000. The percentages dropped to 20% for electric and 10% for natural gas if the system was converted during the second year of the program. In the spring of 2007 the steam district heating system was officially shut down after 87 years of continued operation.

Administrative Department

Down through the years the utility has had many dedicated managers who have directed the utility through the difficult times as well as times of prosperity. During the 100 years of history of the utility there has been only 11 managers. Listed below are the names of these dedicated managers:

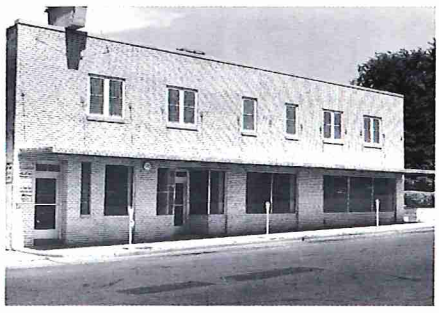
PUC Managers 1902 – 2015

A. D. Horne	•	1902 - 1920
Alfred D. Horne	•	1920 - 1926
Guy Basom	•	1927 - 1952
B. L. Whitney	•	1953 - 1965
L. E. Madsen	•	1965 - 1980
Kenneth DeVillers	•	1980 - 1981
Douglas Cameron	•	1981 - 1984
Paul Lee	•	1984 - 1986
Joseph Pacovsky	•	1986 - 1987
Larry Read	•	1989 - 2000
Gail Swaine	•	2000 - 2003
Troy Nemmers	*	2008 - Present

Alfred Horne – Second Manager of Utility 1920 - 1926

Through the years there have been 3 utility offices. The first utility office was located in the present Fairmont Photo Press building. James Clifford constructed the office building in 1918 at a cost of $6,478.60. The utility used this building until 1961 when the former D. S. Milne building, also located on First St. was purchased. In 1987 the utility office property was sold to First Bank and the City Hall building was torn down. Plans were made to combine the city offices and the utility office into one facility to be located at 100 Downtown Plaza. During the period of time while the City Hall was being remodeled, the city offices were temporarily located in the Central School building, located on Park Street.

First Utility Office – 1918 - 1961



Second Office – 1961 - 1987

Present City Hall & Utility Office

Public Utility Commissioners 1903 - 2015

In addition to devoted managers, the utility was guided by dedicated utility commissioners, who have throughout the years been instrumental in the direction the utility has taken. Listed below are the names of these dedicated individuals who have helped develop the utility:

George Lester	•	1903 – 1905	C. A. Porter	•	1903 - 1905
C. N. Peterson	•	1903 – 1905	F. E. Wade	•	1906 - 1918
V. Wohluter	•	1906 – 1909	Louis Brosemer	•	1906 - 1912
Dr. Hagerty	•	1909 – 1913	H. J. Waite	•	1913 - 1918
H. C. Nolte	•	1914 – 1921	E. W. Bird	•	1919
F. K. Porter	•	1919 – 1944	E. W. Hicks	•	1920 - 1921
W. F. Kasper	•	1922 – 1947	H. J. Waite	•	1922 - 1933
L. A. Luedtke	•	1934 – 1957	E. B. Nelson	•	1945 - 1975
Ed Duffy	•	1948 – 1962	R. G. Wade	•	1958 - 1978
Knud Pedersen	•	1963 – 1976	Don Wohlrabe	•	1976 - 1980
Bruce Krahmer	•	1976 – 1980	Fred Wohlschlager	•	1976 - 1980
Richard Bradley	•	1977 – 1979	John Watters	•	1979 - 1980
Jack Koberg	•	1980 – 1981	Bruce Thalacker	•	1981 - 1981
Ed Olesen	•	1981 – 1987	Gary Rosenberg	•	1981 - 1994
Duane Walser	•	1981 – 1982	Jack Gelting	•	1982 - 1983
L. E. Madsen	•	1982 – 1985	Eldon Poppe	•	1982 - 1997
G. Robert Newman	•	1984 – 1992	Henry Whiteman	•	1986 - 2001
John Sorensen	•	1988 – 2002	Duane Leick	•	1992 - 1998
David S. Olson	•	1994 – 1996	Joe Kurtzman	•	1996 - 2011
Andy Noll	•	1997 – 2012	Bill Supalla	•	1998 - 2015
David Kuhl	•	2001 – 2010	Tom O'Connell	•	2002 – 2005
Jeff Ziemer	*	2005 – Present	Jeff Vetter	*	2010 – Present
David Segar	*	2011 – Present	Dale Schumann	*	2012 – 2013
Brian Johnson	*	2014 – Present	Steven Pierce	*	2015 - 2015

PresentStaff

Director of Public Works/Public Utilities: Troy Nemmers

Electric Distribution Superintendent: Martin Meixel

Water / Wastewater Superintendent: Doug Rainforth

Assistant Finance Officer: Sue Lynch

Commissioners

Jeff Ziemer	Chairman	Jeff Vetter	Vice Chairman
Brian Johnson	Secretary	David Segar	Commissioner
Vacant	Commissioner		

PUC Commissioners 1903 - 2015

George Lester	1903 - 1905
C. A. Porter	1903 - 1905
C. N. Peterson	1903 - 1905
F. E. Wade	1906 - 1918
V. Wohluter	1906 - 1909
Louis Brosemer	1906 - 1912
Dr. Hagerty	1909 - 1913
H. J. Waite	1913 - 1918
H. C. Nolte	1914 - 1921
E. W. Bird	1919 - xxxx
F. K. Porter	1919 - 1944
E. W. Hicks	1920 - 1921
W. F. Kasper	1922 - 1947
H. J. Waite	1922 - 1933
L. A. Luedtke	1934 - 1957
E. B. Nelson	1945 - 1975
Ed Duffy	1948 - 1962
R. G. Wade	1958 - 1978
Knud Pedersen	1963 - 1976
Don Wohlrabe	1976 - 1980
Bruce Krahmer	1976 - 1980
Fred Wohlschlager	1976 - 1980
Richard Bradley	1977 - 1979
John Watters	1979 - 1980
Jack Koberg	1980 - 1981
Bruce Thalacker	1981 - 1981
Ed Olesen	1981 - 1987
Gary Rosenberg	1981 - 1994
Duane Walser	1981 - 1982
Jack Gelting	1982 - 1983
L. E. Madsen	1982 - 1985
Eldon Poppe	1982 - 1997
G. Robert Newman	1984 - 1992
Henry Whiteman	1986 - 2001
John Sorensen	1988 - 2002
Duane Leick	1992 - 1998
David S. Olson	1994 - 1996
Joe Kurtzman	1996 - 2011
Andy Noll	1997 - 2012
Bill Supalla	1998 - 2015
David Kuhl	2001 - 2010.
Tom O'Connell	2002 - 2005
Jeff Ziemer	2005 - Pres.
Jeff Vetter	2010 - Pres
David Segar	2011 – Pres
Dale Schumann	2012 – 2013
Brian Johnson	2014 – Pres.
Steven Pierce	2015 - 2015

PUC Managers

1902 - 2015

A. A. Horn	April 1902 – March 1920
Alfred Horn	March 1920 – December 1926
Guy Basom	January 1927 – August 1952
B. L. Whitney	January 1953 – January 1965
L. E. Madsen	January 1965 – October 1980
Kenneth DeVillers	October 1980 – May 1981
Douglas Cameron	September 1981 – February 1984
Paul Lee	July 1984 - April 1986
Joseph Pacovsky	June 1986 – October 1987
Vacant	October 1987 – October 1989
Larry Read	October 1989 – January 2000
Gail Swaine	July 2000 - May 2003
Vacant	May 2003 – September 2008
Troy Nemmers	September 2008 - Present

FAIRMONT Public Utilities

100 Years of Service to Our Customers
1902 - 2002

Guests Register For Door Prizes

Commissioner & SMMPA Staff Provide Information

Customers Line Up To Get Free Lunch

Long Line To Get Free Lunch

City Administrator Zarling Receives Plaque From Ray Hayward, CEO of SMMPA

Dir. of Public Works/Public Utilities Gail Swaine Receives Plaque from Steve Downer of MMUA