

**A History of the
Caribou Water Company
Caribou Electric Light
Company
Caribou Sewer Company
And the
Caribou Utilities District
1889-2009**

A History of the Caribou Water Company, Caribou Electric Light Company, Caribou Sewer Company and the Caribou Utilities District

The Caribou Water Company was chartered by the Maine Legislature on March 11, 1887 to provide a supply of water for the Town of Caribou. The original incorporators were LR King, Weston Lewis, JS Maxcy, SW Collins, GI Trickey, Jefferson Cary, LC Stearns, Chas. F Thomas, OP Stevenson, JA Clark, HM Heath, AG Bradstreet, WE Maxcy, OA Tuell, and AM Spear. The first General Manager was EE Haynes. The original stock of the company was \$60,000 at \$100 per share.

This was not the first waterworks in Caribou, but it was the most comprehensive. An early water system captured water from springs above Elizabeth Street. Water was piped by gravity through hollowed wooden pipes buried in the ground to several watering basins around town. Reportedly these were located at the intersections of Prospect and Sweden Streets, Main and Sweden Streets and along Water Street. At each location a spigot was installed for the public to fill pails and the overflow was directed into watering tubs for livestock, especially the many horses which were the primary means of transportation at that time.

On June 28, 1888, the Town of Caribou and the Water Company signed a contract for water service and fire protection. On October 31, 1888 HM Tidd, a Boston Engineer was in Caribou to locate the site of the waterworks. It was estimated that the site selected would provide about 9500 gross horsepower and a water supply for the Town. TJ Emery of Waterville, an experienced bridge builder, arrived in November of that year to arrange construction of a dam across the Aroostook River. Jacob Hardison of Caribou was hired as a local agent and SW Collins was contracted to provide lumber for the dam, which required over three million board feet. During the summer of 1889 work on the dam was underway with a large crew of men housed near the worksite. The dam was constructed of heavy wooden cribs, or boxes filled with large rocks as ballast. Wooden piles were driven at the upstream face to secure the dam to the river bottom. The top and faces were covered with wood planking to reduce seepage. A blacksmith shop was constructed near the site to provide metal fabrications for the project. The blacksmith shop burned and had to be replaced. The 425-foot timber crib dam was completed on October 19, 1889 near the site of the present dam. The pool above the dam had a head of about 14 feet and provided a water supply for the Town.

A brick pumping station was constructed near the dam and water was initially pumped from the river by a steam engine through cast iron pipes up Lyndon Street to the village streets for use by customers. In June of 1889 the Aroostook Republican reported that the standpipe and pumping station were connected by a Bell telephone. This means of communication allowed the pumping station to fill the standpipe as required. The pump arrived in October of 1889 and was installed by a Boston contractor. Twenty-five fire hydrants and about four miles of cast iron water pipe were initially provided for fire protection. For furnishing water to all the public buildings including schools and for fire protection in the village area, the Company was exempted from property taxes and the Town of Caribou paid the Company \$2000 per year. The water was not filtered, but it was later disinfected by the addition of chlorine gas to kill bacteria.

During July and August of 1889 work crews were busy digging trenches to install cast iron water pipes under the town streets. Daniel Lacey, Esq. a Boston contractor along with his son William supervised the construction of about 4 miles of water pipe. Between 40 and 50 local men were employed to dig the trenches with picks and shovels, often installing several hundred feet per day. A steel tank was constructed on North Main Street on the same location as the present North Main Low Service tank to serve as a reservoir. The tank was 30 feet in diameter by 30 feet high and held 150,000 gallons. By October applications for water service were being accepted. Rates were fixed based upon the number of faucets, bathrooms and livestock on the property. Typical rates were \$10 for the first faucet and \$3 for each additional, \$5 for a watercloset or tub, and \$5 for the first horse or cow, and \$3 for

each additional animal. Water meters were later installed which allowed customers to be billed according to their water consumption.

JF Hubert, of the Maher Electric Company of Boston arrived in February 1888 to supervise construction of an electrical power plant. Initially a steam engine was installed to drive an electric dynamo to produce electricity. The boiler was first fired on February 15, 1888. During the spring and summer of 1888 wood poles and copper wires were extended from the powerplant to the village. During 1888 over 200 electric lights had been installed in town and more were on the way. In the same year the Town requested that electric lights be installed on the Aroostook River Bridge and on various town streets. In 1891, the Caribou Water Company was authorized by the Legislature to generate and sell electric power to Caribou and Fort Fairfield. In 1893 the Caribou Electric Light Company was formed as part of the Water Company. In 1895 the Legislature authorized the Company to extend electric power to Washburn and Presque Isle. In February of 1892 two new waterwheels were installed in the powerhouse adjacent to the dam. These powered two dynamo generators, which produced electricity for lighting, heating and to power electric motors. The old steam-powered dynamos were sold to the Presque Isle Electric Light Company.

On October 7, 1891 a fire burned the Aroostook River Bridge. Due to a malfunction at the waterworks, the storage tank was empty which prevented the Fire Department from extinguishing the fire. The bridge was a total loss. HD Collins constructed a temporary bridge in 4 ½ days for the sum of \$1200. A toll was charged for crossing, with a typical charge of ten cents. The bridge had been a constant source of problems for the Town, the sum of \$30,000 having been spent over the past several years for maintenance and repairs. The Town of Caribou filed suit against the Water Company for damages to the bridge. The case was eventually settled in February of 1893 for \$3600. A new permanent iron bridge was completed on April 20, 1892 at the end of Water Street connecting with River Road near the site of the Canadian Pacific Railroad Station.

On March 2, 1892 Albe Holmes, a prosperous local businessman who owned several starch factories in Aroostook County, purchased the Water Company for \$100,000. Mr. Holmes hoped to build a pulp mill at the location of the dam and power station with a ready water supply also available. This dream was never realized. During the winter of 1892-93 frost was unusually deep and several water pipes froze and burst. A broken water main on High Street emptied the standpipe. This was a sign of things to come as the harsh winters of Northern Maine severely tried the facilities and employees of the Water Company. After considerable experience with frozen pipes, new water mains were placed at least six feet deep. In 1907 an electric thawing machine was purchased to thaw frozen pipes and this method is still used to this day. An early application of the thawing machine occurred on Limestone Street where 500 feet of water pipe required three and one-half hours to thaw. During severely cold winters, customers were often asked to run their water to prevent their pipes from freezing.

As early as 1892, the need for municipal sanitation was recognized. A number of outbreaks of typhoid fever and other communicable diseases had occurred. Dr. Jefferson Cary, a well-known local physician, urged the construction of a central sewage system for the village. In 1894 the Town hired GM Hamlin, a Bangor engineer and contractor to design a combined sewer system which would function both as a storm drain and later as a sanitary sewer. PL Hardison of Caribou was hired to perform the necessary surveys.

The Caribou Sewer Company was chartered by the Maine Legislature on February 18, 1905 to serve Caribou village with a central sewer system. Capital stock was set at \$50,000 and \$20 per share. Incorporators of the Caribou Sewer Company were George W Irving, Everett Haynes, and John P Donworth. The new Company took over the town drainage system and hired BC Caggiano & Sons, a Boston construction company to install vitrified clay pipes along the major town streets with five major

outfalls discharging to the river. Catch basins were connected to the sewer mains and served as a regular method of flushing the sewers. The major outfalls were along Water Street, Broadway and Limestone Street. Individual customers were allowed to connect to the sewer mains with their own lateral pipes for an annual fee.

The Aroostook River had long been known for its salmon and trout fisheries. Following completion of the dam, it immediately became apparent that the salmon were no longer able to run up the river as they had in the past. A need for a fishway was recognized and in June of 1894 a fishway was constructed on the dam to allow the passage of salmon. In April of 1896 during the spring runoff, a large ice jam pushed out a large section of the dam. Caribou was temporarily without water and electricity. The fish hatchery on Sweden Street was also without water for a time, which strained its operation. Temporary engines were installed to drive pumps and generators until the dam could be rebuilt. BD Whitney an engineer from Gardiner supervised the reconstruction of approximately 200 feet of the timber crib dam. Two hoisting engines were employed along with about 50 men who were paid \$1.40 per day. By May of 1897 the dam was rebuilt and two new waterwheels installed. Dam repairs cost between \$25,000 and \$30,000.

The salmon run was further compromised with the completion of the Tinker Dam on the lower Aroostook River near Perth-Andover, New Brunswick. This dam was built for Gould Electric Company, owned by Arthur R Gould of Presque Isle and the New Brunswick Electrical Power Company to provide electrical power to Fort Fairfield, Presque Isle and surrounding towns. The Tinker dam was constructed of concrete and was much higher at 27 feet, but was only 218 feet long as situated in the narrow gorge near the mouth of the Aroostook.

On February 14, 1903, the Caribou Water, Light, and Power Company, a Portland company, was formed which purchased all assets of the Water and Electric companies. The new owners included Alpheus Rogers, Percival Bonney, and Harry M Verrill. In 1912, an electrical transmission line was constructed from Van Buren to Caribou interconnecting with the Maine and New Brunswick Electrical Power Company, Ltd. This Company and Gould Electric Company owned by Arthur R. Gould of Presque Isle later became Maine Public Service Company which now distributes electricity to most of Aroostook County.

The Caribou Water, Light, and Power Company expanded in the 1920's and 1930's, although the Great Depression of the 1930's put the Company in financial straits. Many more electric customers were added, but many customers could not pay their bills and the Company fell on hard times. In 1935, the Company was authorized to extend electric lines to New Sweden, Stockholm, Woodland, Perham, Connor, and to acquire the Limestone Water & Sewer Company and stock was increased to \$300,000. In 1938 the Colby and New Sweden Electric Companies merged with Caribou, Water & Power Company. Electrical extensions into the rural areas were often petitioned and initiated by farmers who cut their own cedar poles and placed them along the road for later use by the Company. In that way, many miles of rural electric lines were constructed in the Caribou area. The Company was eventually sold to Northeastern Gas & Electric Company, a large holding company that owned several gas, electric, and water utilities on the east coast.

Recognizing a need for greater local control of the water and sewer utilities, in 1941 and again in 1943, the Caribou Utilities District was created by the Maine Legislature. The District was authorized to acquire within two years by sale or eminent domain the Caribou Water, Light & Power Company and the Caribou Sewer Company. The District's charter expired twice since it was not able to acquire either company. In 1943 the owners of the Caribou Water, Light & Power Company sold the water assets to General Waterworks Corporation of Philadelphia and the electric assets to Maine Public Service Company of Presque Isle. The Water Company was henceforth known as the Caribou Waterworks Corporation, a subsidiary of General Waterworks Corporation of Philadelphia, which had

acquired a number of water companies in Maine and other Atlantic states. Local water companies included Fort Kent, Limestone, Washburn, Mars Hill and Caribou. In the 1950's and 1960's a large crew of men was based at the Caribou location for construction of water mains or to respond to emergencies at the surrounding locations. Many miles of water main were added to accommodate rapid growth in Caribou. Subsequent managers of the Caribou Waterworks Corporation included John Murray, Earl Philbrick, Tim Johnson and George Peters. Eventually all of the Aroostook water companies were acquired by local quasi-municipal Districts with Caribou Waterworks among the last to be sold.

In 1941 a new water filtration plant was constructed by Norwood Engineering Co. for \$15,522. The plant was built near the dam and included three direct gravel filters to purify the water for drinking. New pumps and filter media were installed. The water was filtered and treated with chlorine gas to provide disinfection from bacteria and other harmful organisms. In 1958 fluoridation for dental health was added after a Town referendum. The plant was later updated in 1971 by automating the control valves to operate with air pressure. Previously all control valves had to be operated by hand each time the filters were backwashed. Each of the three filters required backwashing at least twice per day. Prior to 1971 the plant was manned 24 hours per day with an operator on each of three shifts. This large staff was required in order to manually operate the plant and to pump and treat the one million plus gallons per day of demand. After 1975 with the passage of the Safe Drinking Water Act, the State of Maine began licensing water plant operators following direction from the US Environmental Protection Agency.

In 1945 a new legislative Charter was created for the Caribou Utilities District authorizing it to acquire either the Caribou Waterworks Corporation or the Caribou Sewer Company or both by purchase or by eminent domain. Negotiations began to purchase both companies but only the Sewer Company was acquired by 1948 for the price of \$98,000. At that time the Briggs and Frost families were the primary owners, along with several other shareholders. The sewer collection system was continually expanded through the years, especially through the 1950's and 1960's with the buildup of Loring Air Force Base. Many new homes were built in Caribou to accommodate the large influx of military and civilian workers. Caribou reached its largest population of 12,500 people, with about half as customers of the District. Sewer customers were charged flat rates according to the type of home or business.

In 1961 a new primary wastewater treatment plant was constructed on Limestone Street to treat the Town's sewage and to accommodate a potato processing plant and a starch factory. The new wastewater plant, designed by the JW Sewall Co. of Old Town, was state of the art for the time with anaerobic digesters generating methane gas, which was used to heat the building. Claude Lombard was hired as the first wastewater plant operator. New rules required treatment plant operators to be licensed by the State. Several thousand feet of sewer interceptors were constructed to connect the sewer outfalls to the treatment plant. Later another potato processor came on line causing massive loads at the treatment facility. Although most wastewater was treated, springtime flows over five million gallons per day were bypassed to the river as an accepted practice.

Following the Federal Clean Water Act of 1970, new more stringent rules were applied to sewage treatment plants. Recognizing that a regional approach to wastewater treatment may be the answer, in 1972 the Aroostook Prestile Treatment District was formed with the communities of Caribou, Presque Isle, and Easton as members. The plan was to provide a central wastewater plant for domestic sewage and for the potato processors in the three towns. A new regional plant was planned for the Grimes Mill area and John Hangen was hired as Executive Director. Economic conditions prevented all of the processors from participating, and the communities and processors eventually decided to construct their own separate facilities.

In 1982 a new secondary treatment plant designed by the Sewall Company, consisting of three aerated lagoons was constructed in the Grimes Mill area of Caribou. All sewage was pumped from the primary plant on Limestone Street across the river, down the River Road, back under the river via a dual siphon, a distance of 2.5 miles to the new site. The plant was named the Charles D. Hatch Wastewater Treatment Facility, after longtime District Trustee and former City Manager, Charles Hatch. After several construction projects funded by the US EPA were completed, which greatly improved the sewer collection and treatment systems in Caribou and Presque Isle, the APTD was dissolved in 1987.

Negotiations continued between the Caribou Utilities District and the Caribou Waterworks Corporation for several years and on March 30, 1989 the CUD purchased the Waterworks for \$2.25 million. Waterworks manager George Peters stayed on for several months after the sale to coordinate the transition. Several Charter revisions were made in 1981 including increasing the number of Trustees from three to five. Operations for both utilities were consolidated on Limestone Street near the primary wastewater plant. A new office building and water garage were constructed at that location in the 1990's. The District operated separate utilities as the Waterworks Division, the Wastewater Division, along with an Administrative Division. Nolan Hafford managed the Waterworks Division, Emery Knowlton the Wastewater Division, and Roberta Walton the Administrative Division. Water and wastewater employees were eventually cross-trained to work in both divisions. Mr. Knowlton retired in 1997 and was succeeded by Paul Rossignol. Ms. Walton retired in 2003 after 39 years with the CUD. She was succeeded by Sue Sands as Office Manager.

In December of 1997 the Trustees of the Caribou Utilities District hired Alan Hitchcock, a Professional Engineer, as its first General Manager to be responsible for the overall operations of the District. Among other challenges the District faced at that time were two that needed to be addressed. One was to control odors at the wastewater treatment plant, which sometimes became offensive in the spring and early summer. Although only one potato processor at that time utilized the CUD for its wastewater treatment, seasonal loads were sometimes very heavy. Several steps were taken to control the odor problem, which was eventually brought under control. In 2004, the District upgraded six of its major wastewater pumping stations. Sewer rates were changed from flat rates to consumption based upon water usage. In 2005 a new aeration system was installed at the wastewater treatment lagoons. In 2008 new underground aeration piping was installed.

Increasingly stringent drinking water rules motivated the CUD to locate a higher quality water source, which would meet current and future drinking water requirements. An ongoing challenge had been to secure a groundwater source as the District's water supply. The General Waterworks Corporation had attempted in the 1960's to find a groundwater source for Caribou, but it had been unsuccessful. Continuing efforts to locate a groundwater source were realized in 2006 with the construction of two 24-inch groundwater wells on the River Road. A new pumping station and treatment plant designed by Wright-Pierce of Topsham was also constructed. The District purchased about 100 acres of property to secure and protect a large aquifer containing high quality groundwater. Water treatment at this location requires only minimal chlorination, fluoridation, and ortho-phosphate added for corrosion control. The District now provides consistent, higher quality water to all of its customers.

The Caribou Utilities District continues to serve its customers within the City of Caribou. The year 2009 marks the 120th anniversary of the initiation of operations of the Water Company, and the 104th year of operation of the Sewer Company.

Compiled by: Alan Hitchcock, June 2009

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