

**The History of  
Drinking Water  
In Springfield  
1820-2008**

**City Water, Light & Power**

## 1820-1856

Water is a precious commodity for early Springfieldians. Private wells and a handful of public hand pumps supply the city's water needs. An 1853 law prohibits the wasteful use of water.



*Hand pumps and wells were the primary source of water for early Springfieldians.*

## 1857-1859

An Illinois State Register editorial says an insufficiency of water is "the greatest drawback upon our city." The privately owned Springfield Water Works Company is established to dig artesian wells near the city's eastern limits—around what is today Washington and 19th Streets. After two years of unsuccessful attempts, the company abandons its efforts.

## 1860-1861

The City buys the Springfield Water Works and receives a charter from the Illinois Secretary of State to construct a municipal water works station on the banks of the Sangamon River. The desire for better fire protection is a key reason the water works plan gains strong public and political support.

## 1866

The City starts building the Sangamon River water works. Construction is completed on a 400,000-gallon reservoir, at the site of the present-day Lanhier ballpark, to hold water pumped from the river.

## 1868

The new \$434,000 water works station is completed. For its first 23-years, the water works is operated by a board of three men appointed by the City Council.

## 1884-1888

The quality of water provided by the water works is improved with the construction of a large well and filtration gallery at the river site.



*Water pumped from the Sangamon River was temporarily stored in this reservoir before being distributed to customers.*

## 1891

A court decision invalidates the city law that created the water works board. Control of the water system is placed directly in the hands of the City Council. This decision will spell near-disaster for the water system.

## 1897-1898

Public demand for water outstrips the water works' pumping capacity. The City builds a new pumping station, with an 8 million gallon per day (MGD) pump.



*A river view of the original Sangamon River water works.*

## 1900

Springfield's water works system has grown to include a pumping capacity of 15 million gallons per day, 60 miles of distribution pipe, and 300 fire hydrants.

Faced with a shortage of corporate funds, the City Council votes to begin diverting money from the water works to other city uses. Carried on over the next decade, this practice severely limits funds needed for crucial maintenance of the water system.



*Willis J. Spaulding*

## 1909

After years of mismanagement, the water system is a wreck. The water supply is badly polluted, service is poor, and a movement to sell the system to a private firm is gaining momentum. In the campaign for City elections, local businessman Willis J. Spaulding leads the call for "Clean water and clean politics." After the election, Spaulding is named Superintendent of Water Works. He soon stops the diversion of water works money for other purposes and begins metering all customers to increase department income.

## 1911

Springfield's aldermanic government is replaced with a commission form. Spaulding is elected the first Commissioner of Public Property, placing him in charge of both the water works and the City's small electric plant, which provides power for street lighting.

## 1912-1916

Spaulding oversees construction of a new, larger water works plant and digs thirty wells to supplement the Sangamon River water supply. During his campaign to gain public support for a unified water and electric utility and the retail sale of electricity by the City, Spaulding coins the name *City Water, Light & Power*.

## 1917-1920

Demand for water continues to grow. Intermittent chlorination of the water supply is initiated, dramatically reducing water-borne disease in Springfield.

## 1923

City planner Myron West recommends construction of a large man-made lake to ensure a sufficient water supply for the future.

## 1924

Voters approve a \$300,000 bond issue to help build a new, larger riverside plant. CWLP begins continuous chlorination of the water supply.

## 1926

The new Sangamon River plant is completed at a cost of \$500,000. It employs chemi-



*The Sangamon River water works plant, 1912.*

cal treatment, a settling basin and sand filtration to “guarantee water that is absolutely free from pollution or from organisms capable of producing disease or discomfort” (CWLP FY25 Annual Report). New water softening procedures are implemented,

saving Springfield water customers an estimated \$60,000 a year in soap and plumbing maintenance costs.



The newly constructed Sangamon River water works plant, 1926.

**1930**

In spite of enlargements made to the new plant in 1929, the need for a new, dependable water supply is dramatically illustrated when nearly all of the available Sangamon River water supply is required to meet the city’s summertime need.

Voters approve a \$2.5 million bond issue to fund the building of Lake Springfield.

**1931**

The City begins purchasing approximately 8400 acres of land southeast of Springfield to be used for the lake and surrounding marginal lands. The City pays an average of \$109.06 per acre. Approximately 200 laborers hired to clear land are each paid 50¢ an hour.



Laborers spent two years clearing the land that was to become the Lake Springfield lake bed.



Spaulding Dam under construction.

**1933**

Construction begins on roadways, water mains, sewers, power lines, two dams, six highway bridges, one railroad bridge, a beach and beach house, the Lakeside Power Station, and the Water Purification Plant. In

December, the impounding of Sugar Creek and Lick Creek begins.

**1935**

Due to the Dust Bowl drought, the 21.4 billion gallon lake does not completely fill until May 2, 1935.

**1936**

CWLP’s new \$450,000 Water Purification Plant begins operation. It includes four dual filtration beds and three sediment settling basins, named Spaulding Upflow Clarifiers after their inventor, Charles Spaulding, CWLP Superintendent of Water Purification and brother to Willis Spaulding. This new plant becomes the model upon which other treatment plants around the world will be based for the next quarter-century.



As the lake level slowly rises, labor crews rip rap the shoreline to protect against erosion.



The new lakeside Water Purification Plant under construction, circa 1935.

**1942**

Four new filters are added to the lakeside Water Purification Plant, doubling CWLP’s water filtration capacity from 13 million to 26 million gallons a day.

**1948-1950**

A two million gallon underground clearwell located in front of the Lakeside Power Station, which is used for temporary storage of purified water, proves insufficient to meet Springfield’s growing water use. A new four million gallon clearwell is built.



CWLP officials stand inside the just completed four million gallon, underground clearwell (1950). In the foreground, their footprints are visible in the wet cement.

**1952-1954**

Springfield experiences a severe drought that, before ending, will cause the water level of Lake Springfield to drop more than 12.5 feet



By 1954, drought had dried up significant portions of the lake. This photo, looking west, shows much of the lake’s main body shriveled to its original creek. The Route 66 (now I-55) bridge can be seen in the distance.

below full pool, threatening the operation of the Lakeside Power Station and the Water Purification Plant.

**1955**

By July 15, heavy rains fill the lake for the first time in over three years.



The South Fork Channel Dam.

**1956**

A concrete channel dam and pumping station is completed on the South Fork of the Sangamon River to allow water to be pumped from the South Fork to Lake Springfield when needed. To meet growing demand and hedge against future drought, the City begins studying the idea of buiding a second lake.

**1957**

Four new filters and two new clarifying basins are added to the Water Purification Plant.

**1965-1966**

Consulting engineers recommend building a new lake (dubbed Lake II) to supplement Springfield's water supply. The City announces plans to build Lake II southeast of Lake Springfield.

**1968**

CWLP begins adding fluoride to the treated water.

**1969-1973**

The City Council approves a \$3 million bond issue and water rate hike that will fund preliminary Lake II-related engineering plans, land acquisition and other activities. However, there is strong, ongoing debate among city leaders and residents as to whether or not a new lake is really needed.

**1976-1985**

The City has purchased more than 70% of the land needed for Lake II, but a 1976 court order abolishes the City's right to condemn any more land until a final decision is made regarding whether or not to build the lake. A 1977 *State Journal-Register* poll shows the majority of local residents approve building the lake, even if it means higher water rates, but the political debate continues.

**1987**

CWLP begins a three-year dredging project to reclaim 652 million gallons of capacity lost to sedimentation in the Sugar Creek and Lick Creek arms of Lake Springfield.

**1988-1989**

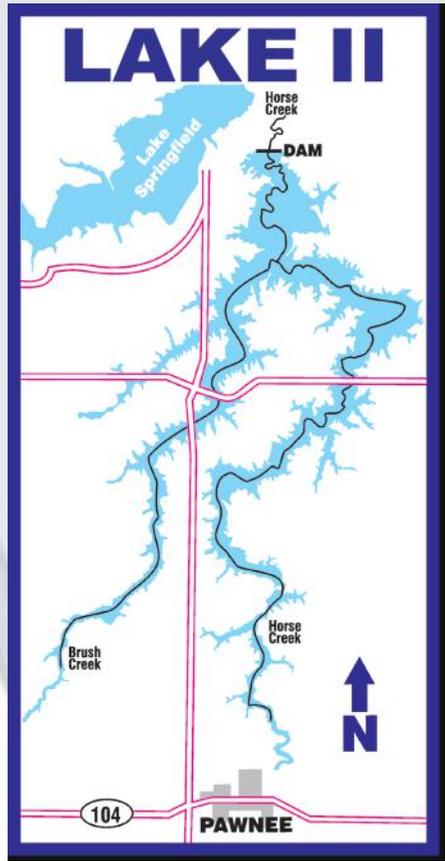
Drought creates low lake levels and spurs the imposition of mandatory water conservation measures. CWLP begins distributing free water-saving devices to customers. Concern over the water supply reignites interest in Lake II. The City Council approves plans to move ahead with Lake II (now named Hunter Lake, after former Commissioner John H. Hunter). Land acquisition resumes.

The Illinois Environmental Protection Agency (IEPA) approves CWLP's Emergency Water Supply Plan, which includes permits to build two temporary dams on the Sangamon River if needed to temporarily supplement Lake Springfield during a drought.

**1991**

By February, CWLP now owns 82% of the land needed for Lake II.

The Water Purification Plant receives a new 27 MGD pump to replace the old 10 MGD pump installed in 1935.



*The Cockrell Lane water storage tank.*

**1994-1995**

In 1994, spring flooding raises the lake to a record level of 564.5 feet, threatening the Lakeside pump station and sending atrazine-laden topsoil from watershed farm fields into the lake. CWLP begins an aggressive carbon treatment program to keep atrazine levels in treated water to acceptable levels. CWLP's work with local agencies and watershed farmers to reduce the amount of chemicals farmers apply and the amount of runoff into the lake will ultimately prove so successful that, by 2004, atrazine in the raw lake water drops to negligible levels.

**1996**

CWLP announces plans to build a new, \$1.8 million, 5 million gallon water tower near Cockrell Lane on the city's west side. Leptospirosis strikes a number of recreational users of Lake Springfield, forcing CWLP to close the lake to swimming for the summer.



*Between 1999 and 2002, two of the original Spaulding Upflow Clarifiers were converted to larger, state-of-the-art helical flow Claricone units (foreground).*

**1999**

CWLP completes a \$1.2 million conversion of one of the original 6 MGD Spaulding Upflow Clarifiers to a new 10 MGD Claricone clarifier, designed by former Water Treatment Plant Superintendent Dave Wyness. The upgrade increases the clarifier's treatment capacity and improves water quality.

**2000**

Low fall 1999 and spring 2000 rainfalls drop the lake level to nearly six feet below full pool by May. Pumping from the South Fork keeps the level from falling significantly lower. The City Council enacts a water conservation ordinance restricting outdoor water use and warns of harsher restrictions if lake levels decline further.



*Fields of wildflowers bloomed in the dry lake bed during the 2000 drought.*



*A fishing pier was left high and dry during the drought.*

As part of its overall emergency water supply plan, CWLP seeks a permit from the IEPA to build a pipeline to recycle water from the ash ponds back to the lake. Heavy rains in late June cause the lake level to rise quickly. By July 12, the lake reaches full pool and water restrictions are lifted. The drought renews public interest in building Hunter Lake.

## 2001

The IEPA advises CWLP that permits to build Hunter Lake are contingent upon the ability to reroute the sewage treatment effluence of the villages of Pawnee and Diver-non and the Virden Sanitary District. CWLP and these communities begin discussing options, including connection to the Springfield Metro Sanitary District.

## 2001-2002

A second Spaulding Upflow Clarifier is upgraded to a Claricone at a cost of \$2.1 million.

Mother's Day flooding again threatens water and power plant operations, but sandbagging protects the low service pumps in the sub-basement of the Lakeside Power Station.



*The second Spaulding Clarifier is upgraded to a Claricone unit (2001).*

## 2007

CWLP announces slowed growth in water use, among other issues, has resulted in lower estimates of the amount of water required from a supplemental water supply during a severe drought. A recalculation of costs for alternative supplemental supply sources indicates that Hunter Lake is no longer the lowest first-cost option, but still will provide the lowest cost per million gallons of available capacity. A series of Sangamon River Valley wells and gravel pits now offer the lowest first-cost.



*The replacement drum for the Spaulding Dam gate number two is lowered into position (November 2008).*



*The replacement gate is in place.*

## 2008

The City Council approves a four-step, 69% water rate increase needed to fund the replacement of the deteriorating water pumping station (located in the basement of the Lakeside Power Station), Spaulding Dam gates, and water mains. The first two Spaulding Dam gates are replaced. The other three will

be replaced in 2009. The permit process for Hunter Lake and the debate over what type of supplemental water supply to build continue.

