

# 3 Hidden Giants

*Almost hidden from the view of motorists, just 600 yards off Route 66 near Crest Hill, Illinois, three important Lockport facilities of the Illinois Waterway system; the powerhouse, controlling works, and the lock, have played key roles in the development of the Chicago area.*

**This page, above, from left to right:** The original lock dating back to 1907. Current lock is operated by the Army Corps of Engineers. **Below, left:** Powerhouse as seen from the lock. Note the arches under the staircase. A spillway sits just left of the stairs. Original lock is to the right. **Center right:** Old machinery inside the powerhouse. **Facing page, left column, center:** Powerhouse control room. Most of equipment in this room is nonfunctional as the powerhouse is now remotely controlled from downtown Chicago. **Below:** One of two remaining turbines in the powerhouse. Blades are beneath the mechanisms which serve to control rotation and balance. **Top, right:** This turbine was in operation from 1934-1999 before becoming a memorial located North of the powerhouse. *Author's collection*

A story of the Lockport facilities can be traced to early attempts to reverse the Chicago River. In the early days of Chicago, the river flowed into Lake Michigan. Sewage and industrial waste ran into the river and out to the lake, contaminating Chicago's drinking water supply. Opening of the Illinois & Michigan (I&M) Canal, which connected the Chicago River to the Illinois River, did nothing to help the situation. In fact, the I&M rapidly became polluted.

In 1871, efforts began to clean Chicago's drinking water supply. An ordinance was passed to abolish City



Cemetery, which sat on the lakefront in what is today Chicago's Lincoln Park. Graves were moved inland to prevent them from washing into the lake during times of high water. Civil engineering efforts were undertaken in an attempt to reverse the flow of the Chicago River: causing Chicago's waste to flow down to the Illinois River (eventually into the Mississippi and out to the Gulf of Mexico). That same year, the I&M Canal was dredged to make its water level lower than Lake Michigan's. This caused the Chicago River (which fed into the canal) to reverse course for one year. The I&M was too small for

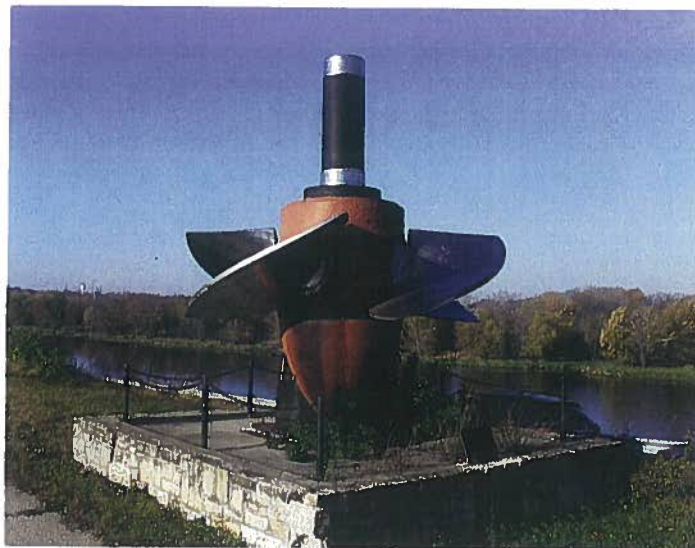




the flow of water to have been a permanent solution. The I&M was also too narrow for newer barges, and its 110-foot-long locks were too small for even one of the new barges that measured 195 feet.

Plans were developed for a larger canal, 160 feet wide and twenty-four feet in depth. This canal would link the Chicago River (and Lake Michigan) to the Des Plaines River, west of the down-town fringe of Lockport. The water level of the canal would be kept lower than the lake, thus permanently reversing the flow of the river. When the I&M canal opened in 1900, it ended four miles north of its current terminus. The original terminus is marked by the Controlling Works: essentially floodgates used to regulate the level of the canal.

In 1904, the decision was made to lengthen the canal four additional miles to link it to the Des Plaines River near downtown Joliet. This was to primarily improve transportation along the river. The drop from the canal to the river is thirty-six feet, and the then, Sanitary District of Chicago built a lock and dam known as the Lockport Powerhouse. In its earliest years, the Powerhouse had seven active turbines generating electricity. Due to treaty obligations and limits on the amount of water that could



be taken from Lake Michigan, the amount of power that could be generated decreased. All but two turbines were removed, though one was mounted as a memorial north of the Powerhouse.

The treaty obligations also lead to the canal being placed under the jurisdiction of the US Army Corps of Engineers. The engineers constructed a larger lock next to the Powerhouse. This lock was reconstructed for 2012, and is 600 feet long and 110 feet wide. The lock is a deep water structure, with the average lift just shy of forty feet. Drainage of the lock takes fifteen minutes, while filling requires another twenty-two minutes.

These sites were vital to the development of modern Chicago and the maintenance of the area's drinking water supply. The canal and lock also played key roles in transporting coal, grains and other materials to and from the city. They are majestic places to visit.

A tour of the Powerhouse and Controlling Works requires authorization from the Metropolitan Water Reclamation District of Greater Chicago, while the Lock is under jurisdiction of the Army Corps of Engineers.



## *Story by Keith Yearman*

### **About the author:**

Keith is Associate Professor of Geography at College of DuPage. Long interested in exploring, and urban issues, he has produced the recently released documentary short "Remembering Jewish Lawndale" (Illinois). He is currently working on a documentary relating to the Illinois Waterway System in the Chicago area. Along with Joseph Kubal and Maria Traska, Yearman is co-author of the forthcoming "Curious Traveler's Guide to Route 66 in Metro Chicago."

