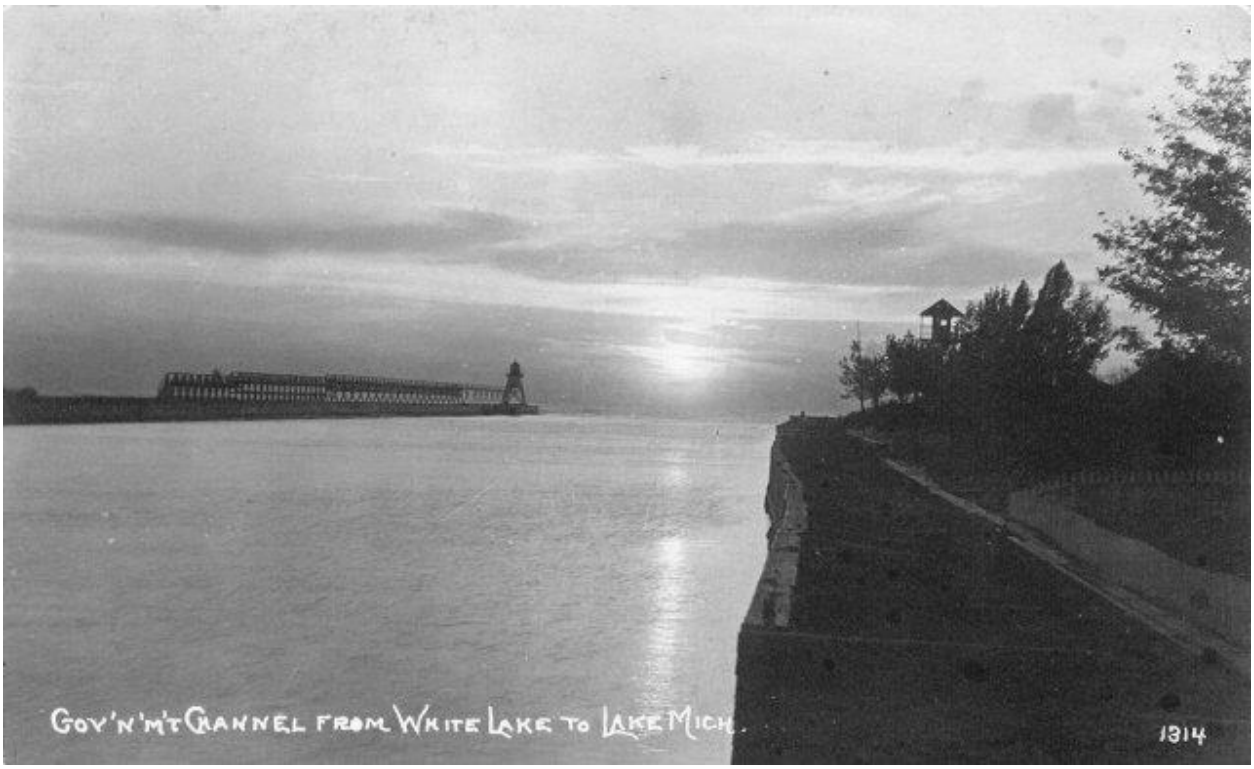
The White Lake Channel

By Barbara Bedau Brow



A number of lumber mills were established in the White Lake area between 1836 and 1850. Lumber from these mills was rafted through the narrow natural channel between White Lake and Lake Michigan before being loaded on ships. This was a time-consuming process, and the local lumbermen lobbied for an improved waterway.

In 1866, Congress appropriated $67,000 for the construction of a new channel between White Lake and Lake Michigan, and $10,000 for the construction of a lighthouse. Construction on the substructure began in 1867 and progresses slowly. In 1869, Congress appropriated an additional $45,000 to cover cost overruns. After four years, the channel project was finally completed in 1871. $1,059 of the lighthouse money was spent on the construction of a beacon at the end of the south pier. Due to the amount of commercial traffic, the channel was originally much longer than it is today: 1,717 feet on the north side, and 1,953 feet on the south. It had a depth of 16 feet and an outside width of 200 feet. The width of the channel inside the walls is 80 feet.

Pilings were driven into the sand with stones piled around the outer edges of the pilings up to where the wood channel walls began. The wood channel walls/piers were then filled with stones. An elevated walkway, or catwalk, was built in 1875 to enable the keeper to reach the pierhead light in heavy weather. Oil lamps were used instead of electricity and were lighted by hand each evening. Thus the upper walkway was not just a convenience, but a necessity.

In 1880, the beacon was moved 100 feet lakeward and a corresponding amount of elevated walkway was built, along with an extra 226 feet to replace a section that was carried away by a storm. The tower was moved another 150 feet in 1884, and the elevated walk was extended to it.

Given their exposed location, the pierhead tower and elevated walkway suffered significant damage over the years from a variety of sources. On August 15, 1877, Keeper Robinson recorded the following in his log: "The steamer Tempest entered this harbor and a spark from her smoke stack fell into the pier and burnt the foundation of the frame of the South Pierhead Beacon Light." Shallow water in the channel between the piers caused two schooners, the Lillie Pratt and Ella Ellingwood, to collide with each other and the pier damaging the elevated walk in April 1890. A piece of driftwood tossed up by violent waves in December 1904 broke a section of the walk. In August 1911, the elevated walkway was struck by lightning, and the pierhead tower suffered the same fate in July 1916.

Prior to 1925

By the 1920s, heavy seas and ice had taken their toll on the wooden piers, and on June 20, 1924, Keeper William Bush noted in his log that he had spent two hours during the night fighting a fire in the south pier. With the south pier settling and breaking up, the metal walkway was taken down during the spring of 1925. At the same time, the light in the pierhead tower was changed to acetylene supplied by tanks, so it wouldn't require daily attention. Another fire, however, broke out in the pier on September 9, 1928, that necessitated a call to the Whitehall fire department.

In 1930, a thirty-one foot tall metal, skeletal tower replaced the faithful wooden tower, which was, according to the keeper's log, "wrecked to pieces." The metal pierhead tower was electrified in 1939, and then replaced with a steel pole in the late 1980's.

In 1936, with an allotment of $28,000, and the belief that sufficient funds would be forthcoming, work began and the wooden pier walls were replaced by concrete, but the center reinforcement of stones was still the same. Presumably it was at this time that the length of the channel was reduced to 80 feet and the depth from 16 to 12 feet. Until the early 1950s there was only a red channel marker on the south pier, and no marker on the north pier.

Following reconstruction of the walls in 1936

By the late 1990s, structural repairs were again necessary, and in 1998 a major project was completed at a cost of almost 8 million dollars. Repairs consisted of enclosing the existing structure with cold rolled steel sheet pilings, and capping with reinforced concrete. A 200 foot rubble mound wave attenuator structure was constructed on both sides of the channel to reduce the wave intensity entering the channel.


Following reconstruction of the walls in 1998