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# The Prettiest Dam on the Maquoketa River : The Quaker Mill Dam at Macheater, Iowa

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# The Prettiest Dam on the Maquoketa River

The Quaker Mill Dam at Manchester, Iowa







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**Title quote** *"The Prettiest Dam on the Maquoketa River"* is taken from Kinney (1967).

**Cover images**

Front— Quaker Mill Dam and bridge, circa 1900–1910 (Robert Ungs).

Front inside—Quaker Mill Dam and bridge, circa 1900–1910 (Robert Ungs).

Back—various historic postcards (Robert Ungs).

# The Prettiest Dam on the Maquoketa River

The Quaker Mill Dam at Manchester, Iowa

By Richard J. Carlson

With contributions by Chérie E. Haury-Artz  
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(Office of the State Archaeologist, University of Iowa)

Prepared for and funded by the  
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1869 map of Manchester area with Quaker Mill circled (Thompson and Everts, Library of Congress, Geography and Map Division).





*Quaker Mill, dam, and bridge circa 1900–1910 (Robert Ungs).*

## Introduction

The Maquoketa River in northeast Iowa has long been one of state's premier rivers, both for the water power that supported its many industries and for its scenic beauty and recreational opportunities. The river's water power was a major attraction for early settlers. Dams were constructed at many points along the river from the 1840s through the 1930s. The first dams powered grist mills and saw mills. In the late nineteenth and early twentieth centuries, old mill dams were replaced by, or converted to, hydroelectric dams to generate electrical power. Finally, particularly during the 1930s, some new dams were constructed for strictly recreational purposes, creating ponds for swimming, boating, fishing, and other outdoor activities.

In recent decades, it has become clear that dams are detrimental to the health of rivers, creating problems that outweigh their benefits. Dams produce turbulent water that is hazardous to swimmers and boaters; they allow silt to collect in mill ponds and reservoirs, worsening upstream flooding; and they hinder the passage of fish from one part of the river to another. In many instances, when they have outlived their industrial uses, these structures may be left to deteriorate, raising the possibility of dangerous catastrophic failures and increasing the risk of flooding. Restoring the free flow of the river ameliorates these problems and restores wetlands critical for good water quality and natural habitats.

Before its demolition in 2017, the Quaker Mill Dam was located along the Maquoketa River northwest of Manchester in Delaware County. This was the site of a succession of dams built during the nineteenth and twentieth centuries. The

earliest dam was a wooden structure built in 1852 to supply power to a saw mill and later to a flour mill. After a series of wooden dams were built in this location, only to be destroyed by floods, a more permanent concrete dam was constructed in 1914. In 1922, the Iowa Electric Company acquired the mill site, modified the dam, and built a hydroelectric plant to generate electricity. During the mid-twentieth century, hydroelectric power became increasingly expensive to generate relative to other forms of power, leading the electric company to stop production at the Quaker Mill plant in 1967. During its useful life, and for some years afterwards, the dam and its associated mill pond served as a popular recreation spot for people in the Manchester area. Finally, in 2017 the deteriorating structure was demolished to restore the free flow of the river, benefiting the environment and creating new recreational opportunities.

Before it was demolished, the Quaker Mill Dam was determined to be eligible for listing in the National Register of Historic Places. It was significant for displaying three unusual engineering features in a single dam. First, it was hollow, allowing an operator to walk inside the dam from the powerhouse at the east end to the floodgate on the west end. Second, the hoist of its single floodgate, a type of curved floodgate known as a Tainter gate, was hand-operated rather than motorized. Finally, it had a monumental concrete fishway designed to accommodate the movement of fish across the dam. Each of these features was uncommon on dams built in Iowa; to find all three on a single structure was truly remarkable.





1852

Wooden dam built to power a saw mill

1865

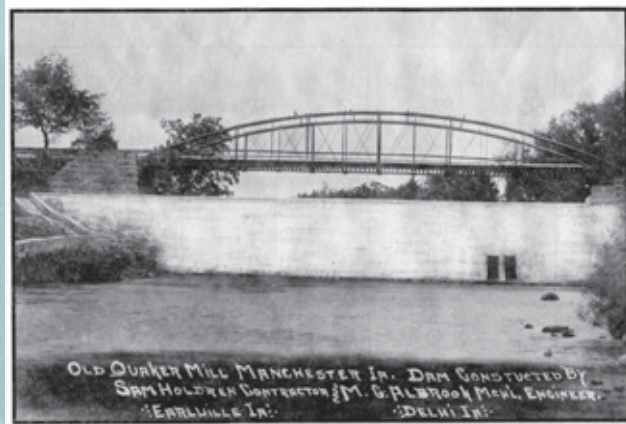
Mill destroyed by flood waters

1869

Mill destroyed by fire and rebuilt

1914

Wooden dam replaced by a concrete structure



OLD QUAKER MILL MANCHESTER IN. DAM CONSTRUCTED BY SAM HOLDEN CONTRACTOR / M. G. ALBROOK MEHL ENGINEER / EARLVILLE IN. / DELHI IN.



1867

Mill rebuilt and named Quaker Mill

1876

Dam washed away and rebuilt

1907-1910

Quaker Oats Company ownership

1854

Flouring mill added



Flour mill from circa 1910 (Merry, opposite page 332).

1922

Concrete dam expanded and converted to hydroelectric power



Power plant and dam during 1925 flood (Manchester Press 2014).



2017

Deteriorating dam demolished to improve river quality



Courtesy of Doug Hawker.

1967

Quaker Mill hydroelectric power plant closes

1940

1950

1960

1970

1980

1990

2000

2010

2020

1930s–1960s

Dam and mill pond promoted as recreation destination



2017 Plans

Free-flowing Maquoketa River



Photo used courtesy of The Cedar Rapids Gazette (partial view shown here).



# Floods, Fire, and the “Best Laid Plans”



*Quaker Mill, facing west, circa 1900–1915 (Robert Ungs).*

## Deaths at the Dam

Six fatalities are known to have occurred at or near the Quaker Mill Dam. In chronological order these are:

June 11, 1887: Albert Lee, age 15, drowned while swimming in Quaker Mill Pond.<sup>57</sup>

June 30, 1929: Alice Collins, age 30, of Lamont, was struck by lightning while taking shelter under a tree during a sudden storm that broke during a family picnic at the dam.<sup>58</sup>

May 29, 1938: Mary Shimpack, age 21, of Cedar Falls, drowned after falling from a motorboat near the dam.<sup>59</sup>

July 18, 1948: Jerry Luther Kirby, age 29, of Strawberry Point, fell into the water while trying to climb up to the powerhouse base after walking across the top of the dam.<sup>60</sup>

May 29, 1958: Jan Speed, age 19, of Manchester, drowned while trying to swim across the river just above the dam.<sup>61</sup>

July 18, 1968: William Tibbott, age 17, of Greeley, stepped into a deep hole in the river while seining fish below the dam.<sup>62</sup>

Prior to the construction of the concrete structure in 1914, at least four other dams had existed at the location of the Quaker Mill Dam. The first dam was probably built in 1852 by Dr. John Acers (pronounced “Akers”) and his brother Henry. This was a wooden structure designed to power a saw mill. Just two years later, in 1854, a flouring mill was added.<sup>1</sup>

John Acers had great aspirations for development in the area. In November 1854 he laid out the town of Acersville, later known as Delaware Center, along both sides of the Maquoketa River near his mills. Confident that the proposed route of the Dubuque and Pacific railroad would have to go through Acersville, he reportedly set a high price for land in the railroad right-of-way. The railroad interests balked, and chose instead to run the railroad two miles south of Acersville, establishing a new town for the railroad station. Originally named Burrington, the new city was platted in 1854–1855. In 1857, it was given its present name, Manchester, probably as a sly reference to William Chesterman, one of the entrepreneurs involved in securing the railroad route. Losing the railroad was the death knell for Acersville, as businesses and residences rapidly abandoned the town and moved to Manchester.<sup>2</sup>

Although Acersville faded away, the flouring mill continued to operate at the dam. Unfortunately, the early years held many more troubles. Disaster struck in 1865 when a flood destroyed the mill. The firm of Paxson & Seeds (later Paxson, Seeds & Co.) stepped in, purchasing a part interest in the business and rebuilding the mill in 1867. The new partners named it “Quaker Mill” in honor of their religious heritage. The mill was destroyed again in 1869, this time by fire. Dr. Acers sold his remaining interest in the business, but Paxson & Seeds had the structure rebuilt by the end of the year. In 1876, the dam was washed away “for the third or fourth time since its construction,” but it was soon rebuilt 120 feet long and 14 feet high.<sup>3</sup>

Paxson, Seeds & Co. and other firms continued to operate the Quaker Mill for several decades. By the turn of the twentieth century it was one of the leading flouring mills in the area. This 1902 overview summarizes the situation of the company:

The Quaker Mill company is having a very satisfactory and ever-increasing trade, and besides doing a large local business is shipping flour to the leading markets of the country, in addition to doing quite an extensive export business, shipping to different ports in the British empire. The company pays the highest market price for all kinds of grain, and not only uses all the grain to



be secured in the local territory, but ships in large quantities from the northwest. The Quaker mill is thoroughly modern in all respects and turns out the finest grades of flour, cornmeal and buckwheat flour. The leading brands of flour are White Pearl, Best Patent, White Satin, Sea Foam, Big Leaf, and Straight, all of which are well known and have the company's trade mark, "A Quaker on Every Sack." The firm is incorporated with a paid up capital stock of \$20,000, and is controlled by some of Manchester's best citizens.<sup>4</sup>

The Quaker Mill company was clearly doing well. Its business, however, was only a small fraction of that of a similarly named but much better known company, the Quaker Oats Company. The Quaker Oats Company was founded in 1901, but it had its roots in several independent oatmeal milling companies that had joined together around 1890. The brand name "Quaker" had been used since 1877 by one of these earlier firms. It became the best known brand of the merged firm, and gave its name to the successor company formed in 1901, the Quaker Oats Company.<sup>5</sup>

The Quaker Oats Company considered the brand name "Quaker" to be of paramount importance and vigorously protected the name from trademark infringement. A 1933 history of the Quaker Oats Company describes what happened

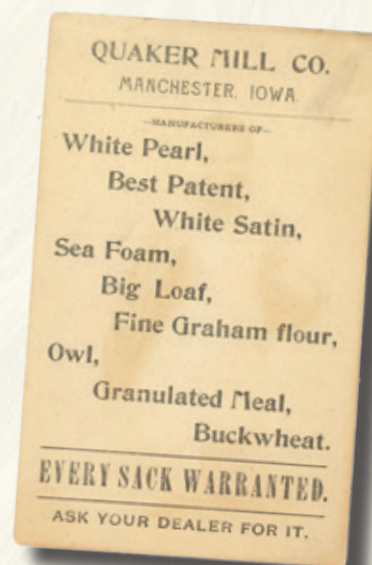
when the company became aware of the Quaker Mill Company of Manchester, Iowa:

In 1906, the Quaker Oats Company, to its great surprise, discovered that an obscure mill was operating in Manchester, Iowa, under the name of the Quaker Mill Company. Inquiry revealed that though this company had been organized in 1894, its predecessors had been doing business since about 1867, and applying the term "Quaker" to flour, cornmeal, graham flour, buckwheat and other mill products. Thereupon, the Quaker Oats Company, to protect its name, lost no time in seeking to negotiate purchase and, in May, 1907, title was secured to the property, business, trade-marks, trade-names, good will, etc., for \$18,000.<sup>6</sup>

The Quaker Oats Company owned the Manchester mill for only a few years. Once the brand name and trademark issues had been resolved to the satisfaction of the Quaker Oats Company, the firm had no further use for the Manchester mill. In 1910, the company sold the former Quaker Mill to a South Dakota firm, which in turn sold the mill back to a local Manchester owner, Joseph Hutchinson. Hutchinson continued milling flour in the mill—presumably no longer under the Quaker brand name—but also planned to add electrical generating equipment to the mill to create a hydroelectric plant.<sup>7</sup>

## Flour Milling in Iowa

The Quaker Mill Dam began life as a source of power for a saw mill and a grist mill. It served as a profitable flour mill for many decades before being converted to produce hydroelectric power. Before corn became king, wheat was the leading crop in Iowa. In the 1840s and 1850s farmers in eastern Iowa counties led in producing wheat. By 1859 Iowa had become the seventh leading wheat producing state in the nation.<sup>63</sup> Consequently, burgeoning municipalities saw flour milling as a key ingredient for growth and development. Having a flouring mill drew trade from area farms which, in turn, attracted other commercial services such as banks, stores, and hotels.<sup>64</sup>



*Images courtesy of Robert Ungs.*







*Quaker Mill dam and bridge, circa 1900–1910 (Robert Ungs).*

## A Dam Reborn

In 1914 Joseph Hutchinson replaced the old wooden dam at Quaker Mill with a taller concrete dam, most likely with the thought of adding electrical power generation in the future. According to a local newspaper, this improvement was intended to increase the efficiency of the mill and provide additional power. The newspaper noted that “The new dam will contain 600 barrels of cement. It is to be fourteen feet high, one hundred and fifty feet in width, fifteen feet in breadth at the bottom, and three feet in breadth at the top.”<sup>8</sup> Only one photograph of this dam prior to its reconstruction in 1922 is known to exist. Writing on this photograph states that Sam Holdren of Earlville, Iowa, was the contractor, and M. G. Albrook of Delhi, Iowa, was the mechanical engineer.<sup>9</sup> The new dam was completed by mid-September 1914.<sup>10</sup>

## *The Iowa Electric Company*

As Iowa entered the twentieth century, the need for reliable electrical power became imperative. By the mid-1910s several events helped convince Manchester residents that a new hydroelectric plant would be desirable. The two electrical power plants (one hydroelectric and one steam powered) that had operated in Manchester before 1916 were bought by the Iowa Electric Company of Cedar Rapids. After

the Iowa Electric Company acquired the plants, Manchester residents became increasingly frustrated by inadequate service coupled with repeated rate hikes. Each time the Iowa Electric Company raised its rates, there was serious talk in Manchester of starting an independent, perhaps municipally owned, electric light and power plant.<sup>11</sup>

To this end, a group of local investors incorporated the Delaware County Light and Power Company and acquired the former Quaker Mill site in 1917.<sup>12</sup> During the next several years, however, the new company proved unwilling to develop the hydroelectric plant themselves, but also unable to convince the City of Manchester to take over the property to develop a municipal power plant.<sup>13</sup> In the meantime, the Iowa Electric Company completed a new high-tension electric line from Cedar Rapids to Manchester, making electrical service more reliable.<sup>14</sup>

By 1922, the shareholders of the Delaware County Light and Power Company had grown tired of inaction. Since they could not persuade the City of Manchester to purchase the site, and had no desire to develop a hydroelectric plant themselves, they sold the Quaker Mill property to the only entity for whom it made economic sense to acquire the site: the widely disliked Iowa Electric Company. This transfer took place in late 1921 or early 1922.<sup>15</sup> Between February and





Quaker Mill Dam and bridge, circa 1914–1922, showing 1914 concrete dam (Robert Ungs).

April 1922, the Iowa Electric Company mounted an extensive public relations campaign to present the “real facts” in response to the “consistent, continuous effort to misrepresent every act of the Iowa Electric Company, in respect to the Quaker Mill, steam rates and service, and many other matters.”<sup>16</sup> Whether or not the people of Manchester accepted the company’s version of events, the Quaker Mill property was transferred to the Iowa Electric Company. Iowa Electric demolished the former Quaker Mill and built a new hydroelectric plant on the site in 1922. The company also raised the height of the dam an additional four feet, increasing the size of the mill pond from about 86 acres to 126 acres.<sup>17</sup>

The Iowa Electric Company’s 1922 expansion of Joseph Hutchinson’s dam resulted in the dam that persisted through the rest of the twentieth century and into the twenty-first. Features added at this time include the Tainter gate and the concrete fishway at the west end of the dam and a powerhouse and powerhouse base on the east end. Of these, only the powerhouse base now survives. The powerhouse, and perhaps also the modified dam, were designed by the engineering firm of Holland, Ackerman & Holland of Ann Arbor, Michigan, and Chicago. The chief engineer on the site appears to have been Joseph D. Wardle, chief engineer with the Iowa Electric Company’s sister organization, the Iowa Railway and Light Company.<sup>18</sup>

## A Glance Into the Past

When the Quaker Mill Dam was removed in 2017, numerous objects were discovered in the sediment at the bottom of the former mill pond which cast light onto the area’s past. Among the most interesting are several metal license plate toppers, extra plates that could be attached to a vehicle’s license plate to promote a message. The license plate toppers display political slogans from the 1932 presidential election, in which Democratic challenger Franklin D. Roosevelt beat Republican incumbent Herbert Hoover in a landslide victory several years into the Great Depression. One set of plates reads simply “**Roosevelt for President.**” Another reads “**Repeal 18th Amendment,**” a reference to the Democratic Party’s call to repeal Prohibition, the 1919 constitutional amendment that prohibited the production, transportation, or sale of alcoholic beverages in the United States.



Recovered plates (Doug Hawker)





*Left and center: images of the interior of the dam, 2002. In center image, note the exposed bedrock near the western end of the dam. Right: close-up image of the Tainter gate and fish ladder, facing northwest (Doug Hawker).*

## Engineering of the Dam

### *How the Dam was Designed*

Following its 1922 reconstruction, the dam was divided into a main overflow dam that was reportedly 18 feet high and 196 feet long, a fishway, and a type of radial floodgate known as a Tainter gate. A floodgate is intended to regulate water flow through a dam during floods. The dam also included two prominent wing walls that extended from the west end of the Tainter gate. All of these features have been removed.

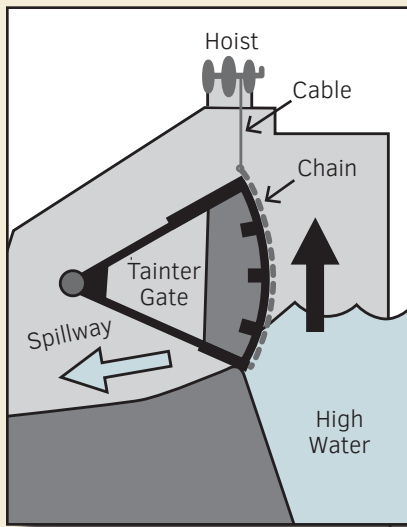
The concrete dam was hollow, and was divided into at least eight small chambers that were accessible through the powerhouse foundation. The chambers were separated from each other by concrete walls that typically had two openings: a large opening near the floor through which people could move between chambers, and a small square opening above the main opening, used for electrical wiring and possibly also as an air vent. For most of the length of the dam, the doors were lined up in a row so that, with enough light, one could see nearly from one end of the dam to the other. However, the west end of the dam, by the fishway and Tainter gate, was built on stone ledges that project from the river bank. Because these ledges are higher than the river floor, the two chambers at the west end of the dam were higher and smaller than those elsewhere in the dam, since they had the same ceiling height over a raised floor. Their doors and other openings were also correspondingly higher,

and they also included a square opening beneath the main large opening, apparently for water drainage.<sup>19</sup>

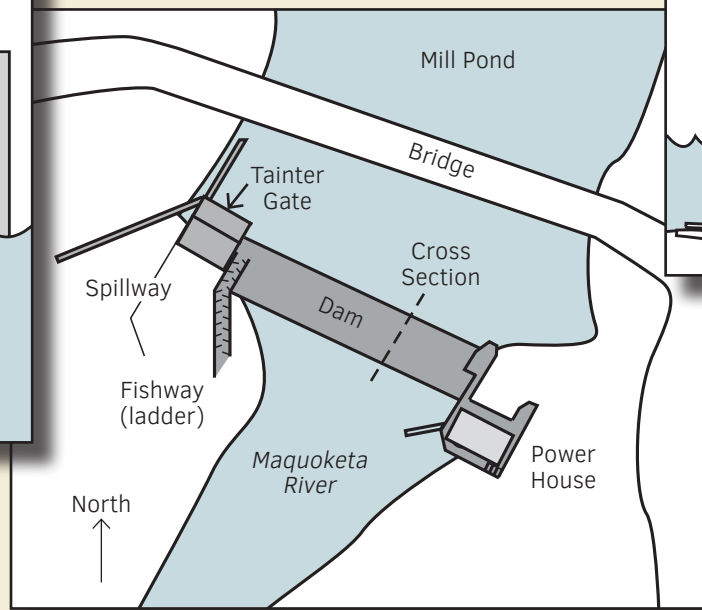
The hollow construction of the Quaker Mill Dam most likely dated to the original 1914 dam rather than the 1922 expansion. In later years this interior passage may have provided access to the Tainter gate and hoist mechanism; however, the 1914 dam appears not to have had a floodgate. The purpose for the hollow construction is currently not known.

The dam was constructed of reinforced concrete that represented at least two separate major building episodes and additional repairs. The original 1914 dam was reportedly 14 feet high, but it was raised to 18 feet by the Iowa Electric Company in 1922. A third building episode appears to have taken place at a later point—dam owner Willard Hawker guesses in the late 1940s or early 1950s—when the dam crest was raised several inches and made level by the use of rails from the abandoned Manchester & Oneida Railway nearby.<sup>20</sup> Two openings at the bottom of the dam near the powerhouse were used to drain the upstream pond when necessary. These openings were sufficiently large for people to use to gain access to the dam's interior from the downstream face of the dam rather than through the powerhouse base.<sup>21</sup> In addition to these openings, two small square holes were located near the crest of the downstream face. The position of these holes near the crest of the dam suggests that

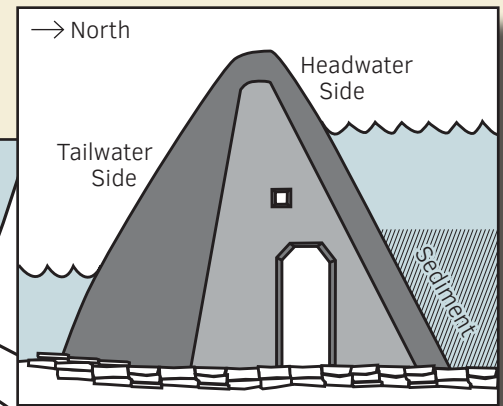




Tainter Gate



Mid-twentieth Century Site Plan



Dam Cross Section

*Dam diagrams approximated from 1960s aerial images and 2017 demolition images.*

they most likely functioned to vent air into and out of the interior chambers as the water level within the dam rose and fell.<sup>22</sup>

The monumental concrete fishway (or fish ladder) extended down from the crest of the dam to the bedrock ledge near the west end of the dam. Fish ladders, which were designed to allow fish passage across dams, were required by Iowa state law on any dam constructed after the late nineteenth century.<sup>23</sup> However, many builders of early twentieth century dams in Iowa either ignored the law completely—building the fish ladders years later as an afterthought, if at all—or built small, predominantly wooden fish ladders that have not survived. The large concrete fish ladder that formed a prominent feature of the Quaker Mill Dam was unusual in both its size and permanence. It was built as an integral part of the 1922 dam reconstruction rather than as an afterthought, and its concrete construction led to its long-term survival. The fish ladder was not straight, but had an angled bend near the center of its run so that the south half angled towards the center of the river. The fish ladder had concrete partitions that extended partway across the channel to provide pools of stiller water to assist the ascending fish. These partitions were angled upstream rather than perpendicular to the walls because angled partitions were thought to offer the fish a greater area of still water in which to rest.<sup>24</sup> Fishways with angled partitions are known as Swazy fishways.

The Tainter gate at the west end of the dam was flanked by reinforced concrete walls that extended several feet above the crest of the dam, allowing the gate to be raised above the upstream pool level during flood periods. A Tainter gate is a radial gate composed of a curved metal plate with the convex side facing upstream. This design allows the force of the water to help open and close the gate.<sup>25</sup> Radial arms connect the downstream face to a single pivot point on each sidewall. The gate is raised and lowered by means of a cable connected to a hoist located above the gate. The hoist mechanism in the Quaker Mill Dam was manual rather than motorized. It consisted of a large hand-crank connected by a series of gears to a drum around which the cable was wound. At the time the hoist was removed in 2017, only the cable and hand-operated wheel were modern, having been installed by the present owners.<sup>26</sup> A concrete catwalk extended across the top of the gate to provide access to the hoist. A concrete spillway extended downstream from the Tainter gate to the bedrock ledges that line the river.

An additional component of the dam was a series of concrete wing walls that extended from the west wall of the Tainter gate. One extended north along the river bank to the stone abutment of a former bridge, while the second extended southwest along the south slope of the hill to the west of the pond. These walls were removed in 2017 together with the rest of the dam.



## Why was the Dam Unique?

The Quaker Mill Dam exhibited several features that were unusual. These include the hollow construction with interior chambers; the monumental concrete fishway; and the single Tainter gate with manually operated hoist. No comprehensive surveys of dams in Iowa have been conducted that identify the number of dams in the state that exhibit each of these features, but the combination was unusual, and possibly unique in the state. To demonstrate the distinctiveness of the Quaker Mill Dam, an attempt was made to identify all extant dams in Iowa with similar features. Dams with hollow construction cannot be identified readily based on their exterior appearance, so the investigation was limited to dams with large concrete fishways and Tainter gates. The number of dams with hollow construction is not known, but only one other dam in Iowa—the Mitchell Mill Dam built in 1925 in Mitchell, Mitchell County—is described in the records of Iowa’s State Historic Preservation Office as having hollow construction like the Quaker Mill Dam.<sup>27</sup>

The table below lists all extant dams in Iowa known to retain a concrete fishway or Tainter gate as of July 2017. The list is based on a comprehensive survey of lowhead dams in Iowa compiled by the Iowa Department of Natural Resources (DNR) in 2010.<sup>28</sup> Dams included in the DNR list that were sufficiently large to be comparable to the Quaker Mill Dam were investigated further through aerial photographs and street-level photographs available online to determine which were known or likely to have either a large concrete fishway or floodgate.<sup>29</sup> As a result of this survey, a total of 24 dams were identified as likely to have features comparable to the Quaker Mill Dam. On-site visits to 23 of these dams were

conducted in June and July 2017. The results of the survey are summarized in the table below.

It was found that, as of July 2017, only three other extant dams in Iowa had large concrete fishways. A fourth fishway, located on the Iowa River Power Company Dam in Johnson County, was smaller and narrower than the others, so it did not qualify as a monumental fishway, but it was the only other intact fishway observed during the field survey. All of the fishways for which a type could be determined were of the Swazy type.

Tainter gates were found to be slightly more common than concrete fishways on Iowa dams. Seven extant dams were found that exhibit this feature, although all have multiple gates rather than the single gate on the Quaker Mill Dam. Only two—the Iowa Falls Dam and Lakehurst Dam—are similar to the Quaker Mill Dam in that they feature both a concrete fishway and one or more Tainter gates. The Market Street Dam in Ottumwa has a total of nine Tainter gates, including one separated from the others on the north side of the powerhouse, as well as one bascule gate. In all cases, the Tainter gates are powered by electricity rather than manually powered. The majority employ moveable hoists on rails, although two dams—Rutland Dam and Market Street Dam in Ottumwa—appear to have one stationary hoist per gate. Another dam that formerly had Tainter gates—the Fort Dodge Hydro Dam in Fort Dodge, Webster County—reportedly had a backup manual hoist.<sup>30</sup> The Tainter gates and hoists from the Fort Dodge dam have been removed since the time it was recorded. The Quaker Mill Dam therefore appears to have been unique in Iowa both for its small number of Tainter gates (one rather than multiple) and for its use of an exclusively hand-powered hoist.

### Iowa Dams Sharing Notable Features with Quaker Mill Dam

Name	River	Location	County	Feature(s)
Center Street Dam	Cedar River	Cedar Falls	Black Hawk	4 Tainter gates
Independence Mill Dam	Wapsipinicon River	Independence	Buchanan	large concrete fishway
Iowa Falls Dam	Iowa River	Iowa Falls (southeast side)	Hardin	large concrete fishway; 3 Tainter gates
Iowa River Power Company Dam	Iowa River	Coralville	Johnson	small concrete fishway
Lakehurst Dam	Maquoketa River	Maquoketa (1 mile west)	Jackson	large concrete fishway; 6 Tainter gates
Market Street Dam	Des Moines River	Ottumwa	Wapello	9 Tainter gates
Mitchell Mill Dam	Cedar River	Mitchell	Mitchell	2 Tainter gates
Red Rock Reservoir Dam	Des Moines River	Pella (1.5 miles southwest)	Marion	5 Tainter gates
Rutland Dam	[West Fork] Des Moines River	Rutland	Humboldt	2 Tainter gates





*Recreation at the dam during the early 2000s. Left: swimmers climbing through the fish ladder. Right: fishing below the dam. Both images courtesy of Doug Hawker.*

## Hot Days and Fresh Fish—Recreation at the Dam

### *Fishing, Hunting, and Trapping*

The Maquoketa River around the Quaker Mill Dam and the pond to the north long served as a recreational area. Along with swimming, boating, and picnicking, outdoor enthusiasts at Quaker Mill have enjoyed fishing, hunting, and trapping. The area's reputation grew during the twentieth century, especially after local entrepreneurs began developing the area around the pond as a pleasure resort in the 1930s.

The excellence of the Maquoketa River for fishing was maintained by the regular stocking of the river both above and below the dam. This was done irregularly before the 1930s, and with increasing frequency from the 1930s to at least the 1970s. In some cases, the fish were provided by a government fishery such as the one in Guttenberg. In other cases, the Maquoketa River was stocked with rescued fish that had been trapped in ponds formed in other river channels when drought conditions lowered their water levels. During the middle decades of the twentieth century, the river near the Quaker Mill Dam was stocked at various times with many types of fish, including largemouth bass, smallmouth bass, red-eye black bass, rock bass, bluegills, black crappies, catfish, walleyes, and northern pike.<sup>31</sup> In 1940, seven-year-old John Scheel of Manchester caught a walleye in his first attempt at fishing. The newspaper at the time observed that the walleye was “a most unusual species of fish for this section.”<sup>32</sup> Willard Hawker, the present owner of the Quaker Mill Dam, recalls that one species of bass, the striped bass, was common in the river below Manchester, but never appeared

as far upstream as the Quaker Mill Dam.<sup>33</sup> A fish survey of the Quaker Mill Pond in 1973 revealed that some largemouth bass, white crappies, and catfish were in the pond, as well as many carp and suckers.<sup>34</sup>

In addition to stocking the river with game fish, the state fish and game commission also occasionally rid the river of undesirable fish. During the Great Depression, a crew from the state fish and game commission seined the river between the Quaker Mill Dam and the dam in Manchester for undesirable fish. The 800 pounds of carp, quillbacks and sunfish that were collected were given to those on poor relief.<sup>35</sup> The river was also occasionally lowered to remove “soft fish” or “rough fish,” undesirable fish that interfere with breeding of game fish.<sup>36</sup>

Duck hunting was also a popular pastime at the mill pond. The Manchester area is part of the Mississippi Flyway, the most heavily used corridor in the United States for migratory waterfowl, so duck hunting here has traditionally been good.<sup>37</sup> At one point around the 1960s, there were six or eight large floating duck blinds in the pond, each owned by a different family. Each blind could fit up to six people side by side. In 1958, Manchester teenager Calvin Robinson, who bagged five “king sized” blue geese at the pond, explained his success by saying “they kept flying over.”<sup>38</sup>

The area around the dam has also been beneficial for trappers. Willard Hawker recalls that when he was a boy in the 1940s, he trapped muskrats and occasionally mink around the dam. He got two to three dollars each for the muskrats, and a dollar an inch for the minks.<sup>39</sup>



# Fun in the Sun—The Development of a Pleasure Resort

Newspaper reports from the early twentieth century often mentioned fishing and picnicking in the Quaker Mill area. During the hot weather in July 1921, a local newspaper reported that:

hundreds of Manchester folks have availed themselves of the cool waters of the Maquoketa above the dam at the Quaker Mill. The youngsters, and some of the older ones for that matter, seem to have the time of their lives diving off the spring boards and the bridge...

The Quaker Mill site is the best along the Maquoketa river for a real bathing beach, and steps should be taken to improve it.<sup>40</sup>

The same newspaper article also faulted some of the visitors to the Quaker Mill area for their behavior. One complaint was that “a number of boys chased some hogs belonging to Mr. Goodrich into the river and held the animals under the water. Boys who are up to such tricks should not be allowed to visit the mill site.” Blocking the highway with cars, “some with glaring headlights turned on full power,” was also identified as a problem.

In 1934, D. J. Meggenburg, a Manchester merchant, established a pleasure resort along the east shore of the mill pond. Meggenburg purchased a 46-acre tract which he subdivided into lots for summer cabins. A beach and picnic area were planned as part of the original proposal, with a large

dance hall to be constructed later.<sup>41</sup> Meggenburg named the beach and picnic area Sunset Beach, a name that continued to be used for several decades, well after Meggenburg sold his interest in the area.<sup>42</sup> A combination dance hall and roller skating rink was built along the highway just east of the cabins in 1940. Meggenburg operated this skating rink, which he named “Beachland,” until he sold it in 1951. The building later housed Virgil’s Motel and subsequently an apartment building until it was demolished in the 1980s or early 1990s.<sup>43</sup>

George Robert purchased an additional five acres in a popular picnicking and camping area south of Meggenburg’s tract in 1938. Manchester theater proprietor Wayne Dutton built the first cabin on the Robert property in 1939, and Robert built the second shortly afterwards.<sup>44</sup> In 1941 Meggenburg platted another development between the pond and the highway, which he named the Sunset Beach subdivision. This subdivision was intended for permanent homes rather than summer cabins.<sup>45</sup>

Development of the north shore of the pond began in the 1950s. In 1953, the Delaware County Fish and Game Protective Association purchased a 17-acre tract south of what is now Firefly Road. A clubhouse and playground were built, and the area was used for boating, fishing, and swimming by association members. The clubhouse was also rented to the public for parties and other events.<sup>46</sup> The fish and game club disbanded in 2004 and sold their clubhouse.<sup>47</sup>

On the west side of the pond, the Delaware County Boat Club had a brief but successful presence in the mid-1950s. Formed in 1955 by Manchester residents, the private boat club rapidly expanded from a handful of people “with one speed boat” to a membership of more than 50 people “and some \$10,000 invested in various water crafts.”<sup>48</sup> The boat club was apparently short-lived; only one newspaper reference to it was found after 1956.<sup>49</sup>



*Sunset beach at the Quaker Mill pond, 1958  
(used with permission from the Telegraph-Herald)*



# The End of the Story—Recent History and Demolition of the Dam

The Iowa Electric Company owned and operated the power plant at Quaker Mill until 1953, when the firm was acquired by the Iowa Electric Light and Power Company. The Iowa Electric Light and Power Company continued to operate the plant at Quaker Mill until 1967, when it was abandoned in favor of larger plants that could generate electricity more cheaply.<sup>50</sup> The powerhouse was subsequently removed, but the Iowa Electric Light and Power Company continued to own the property until 1996, when it was sold to its current owner.<sup>51</sup> The scenic metal arch bridge over the Maquoketa River, the home of makeshift diving boards used by swimmers at the mill pond since the 1890s, was removed in 1969, replaced by a modern highway bridge downstream from the dam.<sup>52</sup>

During the mid- to late-twentieth century, the Quaker Mill Pond gradually silted in due to agricultural erosion upstream. Aerial photographs of the pond taken by the United States Department of Agriculture between the 1930s and 2008 show the river channel at the upstream end of the pond gradually filling in with sediment that rose above the surface of the water and sprouted vegetation. As soil, logs, and other debris worked their way into the pond, along with other types of pollution, recreational activities like boating and swimming became more hazardous and less popular. Increasing concerns about safety and legal liability led landowners to impose greater restrictions on the use of the dam and pond area.<sup>53</sup>

The gradual filling in of the Quaker Mill Pond continued up until 2008, when a major flood breached a levee along the southeast edge of the pond. The Maquoketa River changed course, bypassing the Quaker Mill Dam and flowing southeast to Honey Creek before rejoining the main river channel below the dam. The levee was repaired in 2009, but it breached again in 2010. Another repair is scheduled to be part of the planned river restoration project.<sup>54</sup>

Starting in 2013, the Iowa Department of Natural Resources, working with the Delaware County Conservation Board and the Quaker Mill Dam owners, developed a dam removal and river restoration project for this section of the Maquoketa River. The project involves repairing the levee to return the Maquoketa River to its earlier channel, and removing the Quaker Mill Dam to promote fish passage, reduce the level of sediment in the mill pond to help reduce flooding, and otherwise restore the river channel to a more natural state.<sup>55</sup> The Quaker Mill Dam was removed over the course of a week in May 2017 by Top Grade Excavating of Farley, Iowa.<sup>56</sup> Other components of the river restoration project are scheduled to occur at a later date.



*Dam demolition at the eastern end, view to the southwest, May 2017 (Doug Hawker).*

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Amy Gilligan, Executive Editor, and Michael Day, Senior Editorial Artist/Designer, both at THMedia (publisher of the Dubuque Telegraph Herald), who provided the 1958 image of Sunset Beach used here.



## Notes

- <sup>1</sup> For more on the history of the Quaker Mill and the associated dam, see Carlson 2015.
- <sup>2</sup> Western Historical Company, pp. 389, 478–479, 483, 558–559; Barnes, p. 6L; Carlson 2012a, p. 4.
- <sup>3</sup> Western Historical Company, pp. 511–512; *Waterloo Evening Courier* 1922a, p. [16].
- <sup>4</sup> *Cedar Rapids Sunday Republican* 1902, p. 17.
- <sup>5</sup> Thornton, pp. 25–70.
- <sup>6</sup> Thornton, pp. 35–36.
- <sup>7</sup> *Waterloo Times-Tribune* 1910, p. 8; 1911, p. 3; *Cedar Rapids Evening Gazette* 1911, p. 12.
- <sup>8</sup> *Manchester Press* 1914, p. 1.
- <sup>9</sup> Staehle, p. 9; *Manchester Democrat* 1914a, p. [5]; 1914b, p. 1. Several newspaper sources confirm that Samuel T. Holdren of Earlville was the contractor, but no other source has been found that mentions Albrook in connection with the dam.
- <sup>10</sup> *Manchester Democrat* 1914c, p. 1.
- <sup>11</sup> *Monticello Express* 1916, p. 1; *Waterloo Evening Courier* 1917a, p. 8; 1917b, p. 2; 1919, p. 2; 1920, p. 10.
- <sup>12</sup> *Monticello Express* 1917, p. 1; *Waterloo Evening Courier* 1918, p. 2.
- <sup>13</sup> *Manchester Democrat* 1922a, p. 1.
- <sup>14</sup> *Cedar Rapids Evening Gazette* 1920, p. 6; Murray, p. 135; Poor's Manual Company, p. 442; Poor's Publishing Company, p. 591; *Monticello Express* 1916, p. 1.
- <sup>15</sup> Iowa Electric Company 1922a, p. 1; *Manchester Democrat* 1922b, p. 1.
- <sup>16</sup> Iowa Electric Company 1922a, p. 1; 1922b, p. [4]; 1922c, p. [4]; 1922d, p. [4]; 1922e, p. [4]; 1922f, p. [4]; 1922g, p. [4]; 1922h, p. [4]; 1922i, p. [3]; 1922j, p. [4].
- <sup>17</sup> *Waterloo Evening Courier* 1922b, p. 5; *Dubuque Times-Journal* 1922, p. 11.
- <sup>18</sup> *American Contractor* 1922, p. 61; Leonard 1922:614; McCoy Directory Co., p. 554; Carlson 2015, p. 7.
- <sup>19</sup> Doug Hawker 2015a; Willard Hawker 2015. The chambers can be seen in photographs of the dam's interior taken in 2002 and of the demolition of the dam taken in 2017. These photographs are in the possession of Doug Hawker of Manchester, with copies available at the Office of the State Archaeologist, Iowa City. The photographs are not sufficiently comprehensive to reveal the exact number of chambers, but the number was at least eight and almost certainly no more than ten.
- <sup>20</sup> Doug Hawker 2015a; Willard, Marcia, and Doug Hawker 2017.
- <sup>21</sup> Willard Hawker 2015; Willard, Marcia, and Doug Hawker 2017.
- <sup>22</sup> Doug Hawker 2015b.
- <sup>23</sup> Carlson 2012b, p. 1.
- <sup>24</sup> Frizzell, p. 128.
- <sup>25</sup> Thompson and Vogel, p. 23.
- <sup>26</sup> Willard Hawker 2015; Willard, Marcia, and Doug Hawker 2017.
- <sup>27</sup> Biedermann.
- <sup>28</sup> Iowa Department of Natural Resources.
- <sup>29</sup> Current and historical aerial photographs were available on Google Maps ([www.google.com/maps/](http://www.google.com/maps/)) and the Iowa Geographic Map Server

([ortho.gis.iastate.edu/](http://ortho.gis.iastate.edu/)), while street-level views were available from a variety of sources, including Google Maps and numerous individual photographers. All web sites were accessed in late May and early June 2017.

- <sup>30</sup> Thompson and Vogel, p. 23.
- <sup>31</sup> *The Manchester Democrat* 1913, p. 1; *The Evening Gazette* 1919, p. 7; *The Telegraph-Herald* 1931, p. 9; 1936, p. 7; 1942, p. 7; 1948, Tri-State News section, p. 1; Metcalf, Part 1, p. 4; *Waterloo Daily Courier* 1932, p. 12; *The Cedar Rapids Gazette* 1954a, Section 4, p. 4; 1954b, Section 4, p. 5; *The Bulletin-Journal* 1962, Section B, p. 5; *The Oelwein Daily Register* 1972, p. 2.
- <sup>32</sup> *The Telegraph-Herald* 1940, p. 9.
- <sup>33</sup> Willard, Marcia, and Doug Hawker 2017.
- <sup>34</sup> *The Oelwein Daily Register* 1973, p. 3.
- <sup>35</sup> *The Telegraph-Herald* 1934c, p. 7.
- <sup>36</sup> *The Telegraph-Herald* 1941, p. 17; *Waterloo Daily Courier* 1968, p. 11.
- <sup>37</sup> Willard, Marcia, and Doug Hawker 2017; Ducks Unlimited 2017.
- <sup>38</sup> *The Cedar Rapids Gazette* 1958b, Section 4, p. 6.
- <sup>39</sup> Willard, Marcia, and Doug Hawker 2017.
- <sup>40</sup> *The Manchester Democrat* 1921, p. 1.
- <sup>41</sup> *The Telegraph-Herald* 1934a, p. 5.
- <sup>42</sup> The first use of this name discovered during the research for the present report was in July 1934; see *The Telegraph-Herald* 1934b, p. 4. Meggenburg was advertising the area using this name by 1935; see *Postville Herald* 1935, p. 5; *The Telegraph-Herald* 1935, p. 11.
- <sup>43</sup> Unga; Iowa State University Geographic Information Systems Support and Research Facility.
- <sup>44</sup> *The Telegraph-Herald* 1938b, p. 9; 1939, p. 22; *The Cedar Rapids Gazette* 1939, Section 4, p. 5.
- <sup>45</sup> *Waterloo Sunday Courier* 1941, p. 14.
- <sup>46</sup> *The Telegraph-Herald* 1953, p. 5; Cox 1953, p. 19; *Waterloo Daily Courier* 1953, p. 21; Willard, Marcia, and Doug Hawker 2017.
- <sup>47</sup> Woellert, p. 2D.
- <sup>48</sup> Cox 1956, Tri-State News section, p. 1.
- <sup>49</sup> *Waterloo Daily Courier* 1958, p. 18.
- <sup>50</sup> Kinney, p. [8]; Murray, p. 218.
- <sup>51</sup> Rasdal, p. 1B; Love 2013, p. 7A.
- <sup>52</sup> Cox 1968, p. 9A; *The Cedar Rapids Gazette* 1968, p. 6B; *Waterloo Daily Courier* 1969, p. 16.
- <sup>53</sup> Iowa State University Geographic Information Systems Support and Research Facility; Willard, Marcia, and Doug Hawker 2017.
- <sup>54</sup> Love 2008, pp. 1A, 14A; Love 2009, p. 6A; Love 2013, pp. 1A, 7A.
- <sup>55</sup> Love 2013, pp. 1A, 7A; Wagner et al., pp. 12, 19, 129, 171, 178.
- <sup>56</sup> Hoogeveen; Top Grade Excavating.
- <sup>57</sup> *Evening Journal*, p. 1.
- <sup>58</sup> *Waterloo Evening Courier* 1929, p. 3.
- <sup>59</sup> *The Telegraph-Herald* 1938a, p. 10.
- <sup>60</sup> *The Cedar Rapids Gazette* 1948, p. 7; *The Oelwein Daily Register* 1948, p. 1.
- <sup>61</sup> *The Cedar Rapids Gazette* 1958a, p. 2.
- <sup>62</sup> *The Telegraph-Herald* 1968, p. 1.
- <sup>63</sup> Schmidt 1920, p. 401.
- <sup>64</sup> Soike 1989, p. 3.

## References Cited

- American Contractor*  
1922 *The American Contractor*, August 5, 1922.
- Barnes, Suzanne  
1995 *The Gazette* (Cedar Rapids, Iowa), April 19, 1995.
- Biedermann, W. R.  
1978 Northeastern Iowa Power Company: Mitchell Powerhouse and Dam. National Register of Historic Places Inventory–Nomination Form. Available in the State Historic Preservation Office, State Historical Society of Iowa, Des Moines.
- Bulletin-Journal* (Independence, IA)  
1962 *The Bulletin-Journal*, May 4, 1962.
- Carlson, Richard J.  
2012a Iowa Site Inventory Form for the E. W. Hoag Grist Mill and Electric Light Plant Dam, Manchester, Delaware County, State Inventory Number 28-00655. Copy on file, State Historic Preservation Office, State Historical Society of Iowa, Des Moines.  
2012b Iowa Site Inventory Form for the Littleton Dam, Buchanan County, State Inventory Number 10-00603. Copy on file, State Historic Preservation Office, State Historical Society of Iowa, Des Moines.  
2015 Iowa Site Inventory Form for the Quaker Mill Dam, State Inventory Number 28-00702. Copy on file, State Historic Preservation Office, State Historical Society of Iowa, Des Moines.
- Cedar Rapids Evening Gazette* (Cedar Rapids, Iowa)  
1911 *The Cedar Rapids Evening Gazette*, February 23, 1911.  
1920 *The Cedar Rapids Evening Gazette*, July 19, 1920.
- Cedar Rapids Gazette* (Cedar Rapids, Iowa)  
1939 *The Cedar Rapids Gazette*, July 9, 1939.  
1948 *The Cedar Rapids Gazette*, July 19, 1948.  
1954a *The Cedar Rapids Gazette*, April 18, 1954.  
1954b *The Cedar Rapids Gazette*, May 2, 1954.  
1958a *The Cedar Rapids Gazette*, May 30, 1958.  
1958b *The Cedar Rapids Gazette*, October 19, 1958.  
1968 *The Cedar Rapids Gazette*, December 29, 1968.
- Cedar Rapids Sunday Republican* (Cedar Rapids, Iowa)  
1902 *Cedar Rapids Sunday Republican*, December 7, 1902.
- Cox, Clarence  
1953 *Waterloo Sunday Courier* (Waterloo, Iowa), July 12, 1953.  
1956 *The Telegraph-Herald* (Dubuque, Iowa), July 29, 1956.  
1968 *The Cedar Rapids Gazette* (Cedar Rapids, Iowa), January 1, 1968.
- Dubuque Times-Journal* (Dubuque, Iowa)  
1922 *Dubuque Times-Journal*, August 25, 1922.
- Ducks Unlimited  
2017 DU Projects: Mississippi Flyway. Electronic document, [www.ducks.org/conservation/where-ducks-unlimited-works/waterfowl-migration-flyways/du-projects-mississippi-flyway/](http://www.ducks.org/conservation/where-ducks-unlimited-works/waterfowl-migration-flyways/du-projects-mississippi-flyway/); accessed July 11, 2017.
- Evening Gazette* (Cedar Rapids, Iowa)  
1919 *The Evening Gazette*, October 16, 1919.



- Evening Journal* (Muscatine, Iowa)  
1887 *Evening Journal*, June 13, 1887.  
Frizzell, Joseph P.  
1901 *Water-Power: An Outline of the Development and Application of the Energy of Flowing Water*. First edition. John Wiley & Sons, New York.
- Google Maps  
2017 Google Maps. Electronic document, [www.google.com/maps/](http://www.google.com/maps/); accessed May 30–June 14, 2017.
- Hawker, Doug  
2015a Telephone interview with Richard Carlson, February 10, 2015.  
2015b E-mail to Richard Carlson, February 23, 2015. On file, Office of the State Archaeologist, the University of Iowa, Iowa City.
- Hawker, Willard  
2015 Telephone interview with Richard Carlson, February 22, 2015.
- Hawker, Willard, Marcia Hawker, and Doug Hawker  
2017 Interview with Richard Carlson at 18881 171st Avenue, Manchester, Iowa, June 26, 2017. Recording on file, Office of the State Archaeologist, The University of Iowa, Iowa City.
- Hoogeveen, Nate  
2017 E-mail to Richard Carlson, Architectural Historian, Office of the State Archaeologist, dated May 1, 2017. Copy on file, Office of the State Archaeologist, The University of Iowa, Iowa City.
- Iowa Department of Natural Resources  
2010 *Solving Dam Problems: Iowa's 2010 Plan for Dam Mitigation*. Iowa Department of Natural Resources, Des Moines.
- Iowa Electric Company  
1922a *The Manchester Democrat*, February 8, 1922, Section 2.  
1922b *The Manchester Democrat*, February 15, 1922.  
1922c *The Manchester Democrat*, February 22, 1922.  
1922d *The Manchester Democrat*, March 1, 1922.  
1922e *The Manchester Democrat*, March 8, 1922.  
1922f *The Manchester Democrat*, March 15, 1922.  
1922g *The Manchester Democrat*, March 22, 1922.  
1922h *The Manchester Democrat*, March 29, 1922.  
1922i *The Manchester Democrat*, April 5, 1922, Section 2.  
1922j *The Manchester Democrat*, April 12, 1922.
- Iowa State University Geographic Information Systems Support and Research Facility  
2017 Iowa Geographic Map Server. Electronic document, [ortho.gis.iastate.edu/](http://ortho.gis.iastate.edu/); accessed May 30–June 14, 2017.
- Kinney, Dallas  
1967 *The Telegraph-Herald* (Dubuque, Iowa), October 2, 1967.
- Leonard, John William  
1922 *Who's Who in Engineering: A Biographical Dictionary of Contemporaries*. John W. Leonard Corporation, New York.
- Love, Orlon  
2008 *The Gazette* (Cedar Rapids, Iowa), July 13, 2008.  
2009 *The Gazette* (Cedar Rapids, Iowa), June 13, 2009.  
2013 *The Gazette* (Cedar Rapids, Iowa), July 28, 2013.
- Manchester Democrat* (Manchester, Iowa)  
1913 *The Manchester Democrat*, August 13, 1913.  
1914a *The Manchester Democrat*, August 12, 1914.  
1914b *The Manchester Democrat*, August 26, 1914.  
1914c *The Manchester Democrat*, September 23, 1914.  
1921 *The Manchester Democrat*, July 13, 1921.  
1922a *The Manchester Democrat*, April 19, 1922.  
1922b *The Manchester Democrat*, August 23, 1922, Supplement.
- Manchester Press* (Manchester, Iowa)  
1914 *The Manchester Press*, July 20, 1914.  
2014 *The Manchester Press*, February 26, 2014
- McCoy Directory Co.  
1922 *McCoy's Cedar Rapids City Directory, 1922*. The McCoy Directory Co., Rockford, Illinois.
- Merry, John F. (supervising editor)  
1914 *History of Delaware County, Iowa, and Its People*. Volume 1. The S. J. Clarke Publishing Co., Chicago.
- Metcalf, H. J.  
1931 *The Burlington Hawk-Eye* (Burlington, Iowa), September 20, 1931.
- Monticello Express* (Monticello, Iowa)  
1916 *The Monticello Express*, September 14, 1916.  
1917 *The Monticello Express*, November 22, 1917.
- Murray, John J.  
1982 *It Took All of Us: 100 Years of Iowa Electric Light and Power Company*. Iowa Electric Light and Power Company, [Cedar Rapids, Iowa?].
- Oelwein Daily Register* (Oelwein, Iowa)  
1948 *The Oelwein Daily Register*, July 20, 1948.  
1972 *The Oelwein Daily Register*, October 2, 1972.  
1973 *The Oelwein Daily Register*, July 28, 1973.
- Poor's Manual Company  
1917 *Poor's Manual of Public Utilities 1917*. Fifth annual number. Poor's Manual Company, New York.
- Poor's Publishing Company  
1937 *Poor's Public Utility Volume 1937*. Poor's Publishing Company, New York.
- Postville Herald (Postville, Iowa)  
1935 *Postville Herald*, March 14, 1935.
- Rasdal, Dave  
1999 *The Gazette* (Cedar Rapids, Iowa), May 11, 1999.
- Schmidt, Louis B.  
1920 The Westward Movement of the Wheat Growing Industry in the United States. *Iowa Journal of History and Politics* 18:396–412.
- Soike, Lowell J.  
1989 *Flour Milling and Related Buildings and Structures in Iowa, 1840–1940*. National Register of Historic Places Multiple Property Documentation Form. Copy on file, State Historic Preservation Office, State Historical Society of Iowa, Des Moines.
- Stahle, Jennie  
1914 *The Manchester Press*, August 6, 1914.
- Telegraph-Herald* (Dubuque, Iowa)  
1931 *The Telegraph-Herald*, July 30, 1931.  
1934a *The Telegraph-Herald*, May 1, 1934.  
1934b *The Telegraph-Herald*, July 1, 1934.  
1934c *The Telegraph-Herald*, September 23, 1934.
- 1935 *The Telegraph-Herald*, April 1, 1935.  
1936 *The Telegraph-Herald*, August 13, 1936.  
1938a *The Telegraph-Herald*, May 30, 1938.  
1938b *The Telegraph-Herald*, July 31, 1938.  
1939 *The Telegraph-Herald*, June 4, 1939.  
1940 *The Telegraph-Herald*, June 19, 1940.  
1941 *The Telegraph-Herald*, September 7, 1941.  
1942 *The Telegraph-Herald*, August 25, 1942.  
1948 *The Telegraph-Herald*, October 17, 1948.  
1953 *The Telegraph-Herald*, June 2, 1953.  
1958 *The Telegraph-Herald*, June 15, 1958.  
1968 *The Telegraph-Herald*, July 19, 1968.
- Thompson and Everts  
1869 *Map of Delaware County, Iowa*. Thompson & Everts, Geneva, Illinois.
- Thompson, Joe B., and Robert C. Vogel  
2005 *Phase I Archeological Excavations and Evaluation of the Fort Dodge Hydroelectric Dam, Webster County, Iowa*. BCA #1300. Bear Creek Archeology, Inc., Cresco, Iowa.
- Thornton, Harrison John  
1933 *The History of the Quaker Oats Company*. The University of Chicago Press, Chicago.
- Top Grade Excavating  
2017 Top Grade Excavating. Electronic document, [www.topgradeexcavating.net/](http://www.topgradeexcavating.net/); accessed July 15, 2017.
- Ungs, Robert  
2017 Telephone interview with Richard Carlson, July 6, 2017.
- Wagner, Mimi, Lucas Buscher, and Jacob Wilson  
2016 "A Ribbon of Life": *Maquoketa Water Trail Plan, Delaware County, Iowa 2016*. Iowa Department of Natural Resources, Des Moines.
- Waterloo Daily Courier* (Waterloo, Iowa)  
1932 *Waterloo Daily Courier*, September 16, 1932.  
1953 *Waterloo Daily Courier*, October 2, 1953.  
1958 *Waterloo Daily Courier*, May 15, 1958.  
1968 *Waterloo Daily Courier*, July 23, 1968.  
1969 *Waterloo Daily Courier*, June 6, 1969.
- Waterloo Evening Courier* (Waterloo, Iowa)  
1917a *Waterloo Evening Courier*, August 11, 1917.  
1917b *Waterloo Evening Courier*, October 11, 1917.  
1918 *Waterloo Evening Courier*, April 26, 1918.  
1919 *Waterloo Evening Courier*, August 16, 1919.  
1920 *Waterloo Evening Courier*, October 4, 1920.  
1922a *Waterloo Evening Courier*, June 9, 1922.  
1922b *Waterloo Evening Courier*, June 16, 1922.  
1929 *Waterloo Evening Courier*, July 1, 1929.
- Waterloo Sunday Courier* (Waterloo, Iowa)  
1941 *Waterloo Sunday Courier*, July 27, 1941.
- Waterloo Times-Tribune* (Waterloo, Iowa)  
1910 *The Waterloo Times-Tribune*, July 9, 1910.  
1911 *The Waterloo Times-Tribune*, February 23, 1911.
- Western Historical Company  
1878 *History of Delaware County, Iowa*. Western Historical Company, Chicago.
- Woellert, Larry  
2004 *The Gazette* (Cedar Rapids, Iowa), January 30, 2004.





Maquoketa Falls Below the Quaker Dam, Manchester, Iowa



QUAKER MILL DAM



Post Card

THE ADDRESS ONLY TO BE WRITTEN HERE

George Thel  
Dubuque  
Ia.

