NPS Form 10-900

United States Department of the Interi	or
National Park Service	

#### OMB No. 1024-0018

# National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, How to Complete the National Register of Historic Places Registration Form. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

## 1. Name of Property

Historic name: Minnetonka Beach Water Tower Other names/site number: Name of related multiple property listing: N/A



(Enter "N/A" if property is not part of a multiple property listing

## 2. Location

Street & numbe	r: 25	10 Woodł	oridge I	Road	1		A	- 1 - C	
City or town:	Minn	etonka Be	ach	Stat	e:	MN	_County: _	Hennepin	
Not For Publica	ition:	n/a	Vicin	nity:	n/a				

## 3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this <u>X</u> nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

does not meet the National Register Criteria. 1 In my opinion, the property  $\underline{X}$  meets recommend that this property be considered significant at the following level(s) of significance:

national statewide X local Applicable National Register Criteria: D

XA B X C

and good	10/23/19
Signature of certifying official/Title: Amy Sp	oong, MN Deputy SHPO, Dept. of Admin. Date
State or Federal agency/bureau or Tribal	Government
In my opinion, the property meets d riteria.	oes not meet the National Register
Signature of commenting official:	Date
Title :	State or Federal agency/bureau or Tribal Government

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## 4. National Park Service Certification

I hereby certify that this property is:

- \_\_\_\_ entered in the National Register
- \_\_\_\_ determined eligible for the National Register
- \_\_\_\_ determined not eligible for the National Register
- \_\_\_\_ removed from the National Register
- \_\_\_\_ other (explain:)

1 12 gnature of the Keeper Date

5. Classification

#### **Ownership of Property**

(Check as many boxes as apply.) Private:

Pul	bl.	ic	 Local

D 1 1		<b>A</b>
Publ	1C	 State

Public – Federal

#### **Category of Property**

(Check only one box.)

Building(s)	
District	
Site	
Structure	X
Object	

Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State

# Number of Resources within Property

(Do not include previously listed resources in the count) Contributing Noncontributing

		buildings	
		sites	
1		structures	
		objects	
1	0	Total	

Number of contributing resources previously listed in the National Register \_\_\_\_\_0

6. Function or Use Historic Functions (Enter categories from instructions.) \_INDUSTRY/PROCESSING/EXTRACTION/waterworks\_\_\_\_\_

**Current Functions** 

(Enter categories from instructions.) INDUSTRY/PROCESSING/EXTRACTION/waterworks

Sections 1-6 page 3

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#### 7. Description

Architectural Classification (Enter categories from instructions.) OTHER/Hemispherical Bottom

Materials: (enter categories from instructions.) Principal exterior materials of the property: \_\_\_\_\_ METAL/Steel \_\_\_\_

## **Narrative Description**

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

## Summary Paragraph

The 1928 Minnetonka Beach Water Tower is located on a wooded site in a village of some 539 persons situated on the north lakeshore of Lake Minnetonka. The Water Tower is a 140-foot tall, 50,000-gallon, elevated steel water tower of the hemispherical bottom type, which retains a good level of historic integrity. The structure retains the features that represent its type, including a cylindrical, riveted steel tank with a suspended hemispherical bottom, conical roof with ventilator finial, girder balcony stiffener, and lattice-girder steel tower. Construction of the tower marks the village's transition from non-filtrated water pumped directly from Lake Minnetonka and the community's evolution from one tied to the seasonally driven residential base established during the Lake's boom years, to a year-round population with deeper and less transient ties to the community. With an increased understanding of the health issues related to use of unfiltered water and growing need for year-round water service, the village council undertook the transition to a municipal water system.

Typical of elevated water towers, the structure at Minnetonka Beach functions as a way-finder for residents and visitors alike. Historically, one of perhaps a half-dozen municipal, hemispherical bottom towers located in communities stretching the shoreline of Lake Minnetonka, the 1928 structure at Minnetonka Beach is now the only remaining water tower of its type on the lake (Photograph 01).

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#### **Narrative Description**

#### Site Description

The community of Minnetonka Beach is characterized by the boot-shaped peninsula upon which it is situated. The peninsula extends from the primary landmass on the west (marked by the town of Navarre), stretching east to jut into Lake Minnetonka. The peninsula is bounded by Crystal Bay on the north and by the main body of the lake on the south and east. The Arcola Bridge on Shoreline Drive (Hwy. 15) connects Minnetonka Beach to the main landmass on the east. The peninsular landform provides an extended shoreline and thus the Minnetonka Beach Water Tower occupies a prominent position on Lake Minnetonka (Photograph 02). The community is further characterized by mature and dense forestation, some significant variations in topography, and roadways that wind along the shoreline and throughout the community itself.

The Minnetonka Beach Water Tower is located in a residential neighborhood that is situated in the narrowest section of the peninsula and equidistant between Crystal Bay on the north and Lafayette Bay on the south. The neighborhood is characterized by large-scale residences setback from the winding roadways and (typically) within the cover of dense vegetation. Well-known historic properties sited in the vicinity of the water tower include the Lafayette Club (1924) and St. Martin's by the Lake Episcopal Church (1888, by architect Cass Gilbert).

The structure is sited on an approximate 5-acre parcel of city property north of Highway 15 at that roadway's intersection with Woodbridge Road (Figure 01). The irregular, triangle-shaped parcel is bounded by Woodbridge Road on the south, Arcola Lane on the north, and Shoreline Drive (Hwy. 15) on the east. In addition to the water tower, the site is occupied by buildings/ structures related to the city's public works – all of which post-date the period of significance. The water treatment building, adjoining salt house, and ground water tank all date to 1958, with the garages dating to ca.1990. The present nomination is limited to the water tower and the portion of the site to which it is directly and historically associated - that portion of the site being well less than one-tenth of one acre (see parcel map and boundary description p.56).

The 140-foot tall water tower is sited on a 32- x 32-foot patch of grass, immediately west and slightly south of the non-historic water works buildings. The topography of the site rises from Woodbridge Road on the south, with the tower sited on a knoll. In this location, the water tower rises above the dense tree canopy surrounding it (Photograph 03-05).

A paved driveway provides access to the adjacent water works facility from Woodbridge Road on the south (Photographs 06-09). The facility's buildings and structures are arranged in a square around a paved central yard. The water treatment building, adjoining salt house, and the ground water tank all date to 1958, with the garages, arranged in an L-shape, dating to ca.1990.

The small-scale buildings are all utilitarian in appearance, one-story with side gable roofs. The 1958, water treatment building (including the adjoining salt house) is concrete block with struck joints. Original plans note the building with a flat roof, indicating that the gable roof, with wood

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shingles in the gable ends, was a later alteration. The ca.1990 garage structures are textured concrete block with wood shingles used in the gable ends. The 1958 ground tank is a monolithic steel tank with a 75,000-gallon capacity.

## Property Description

The 1928 Minnetonka Beach Water Tower is a 140-foot tall, 50,000-gallon, elevated steel water tower of the hemispherical bottom type. The water tower is representative of its construction era in materials used, shape of the holding tank, use of riveted construction, structural system of lattice-girders and cross-ties, tank volume, and other functional details included to enable access to and service of the structure (Photograph 10).

The 1928 Minnetonka Beach Water Tower features a cylindrical, riveted-steel tank with a suspended, hemispherical bottom. A riveted, conical roof with a ventilator finial caps the tank. A girder balcony stiffener with an X design encircles the tank.

An access platform is mounted approximately 7-feet below the lowest point of the tank bottom. The platform consists of a narrow, steel deck laid in sections around the riser pipe, with a dogleg connecting to an access ladder on the northwest leg. A steel safety rail runs along the platform, including the dogleg. A caged ladder connects the access platform to approximately 7-feet from the ground. The ladder also runs up from the platform along the outside of the tank to the roof. A second, smaller access platform is attached to the upper crossbar at the northwest leg. Like the upper access panel, it consists of a steel deck and steel safety railing (Photograph 11).

The tank is elevated on a four-post, lattice-girder trestle tower that rises to 76-feet, 9-inches, where it meets the tank. Each of the tower's four posts is riveted to a poured-concrete plinth, the height of which varies to counter variations in ground levels (Photograph 12). Diagonal tie rods provide additional stability to the tower.

An 8-inch diameter, riser pipe (now encased in an aluminum jacket) connects the elevated tank with the underground water system. The pipe is bolted at its base to a concrete plinth block (Photograph 13).

A steel plaque reading "1928 Minneapolis Steel and Machinery Co Builders Minneapolis Minn." is riveted to the tower's northwest leg (Photograph 16). The plaque is partially blocked by a steel plate that has been bolted to the base of the tower. A common intervention in water towers of this type is the introduction of steel plates bolted to all sides of the base of each leg to prevent unauthorized access to the water tower; those of the Minnetonka Beach Water Tower were added in 1942.

The Minnetonka Beach Water Tower is currently painted silver with an abbreviated version of the city name, "MTKA BEACH" appearing in black, block lettering. Typically, hemispherical water towers were painted silver (both tower and tank) with a red roof and black lettering. No

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detail addressing the issue of paint color was found in Village Council minutes in 1928. However, in 1968, when the roof was replaced due to deterioration, paint specifications called for red paint on the roof and silver on the tank.<sup>1</sup>

Given the wear and tear that comes from regular use, repairs were made on an ongoing basis over its 90-year existence, the first instance of which is documented in Village Council minutes in the autumn of 1931. Subsequent Council minutes record the ongoing regular repair or replacement of pumps, gauges, and chlorinators.<sup>2</sup> In the spring of 1942, the riser pipe was first sheathed using asphalt shingles.<sup>3</sup> The asphalt shingles apparently deteriorated quickly; in June of 1943 a proposal to sheath the riser pipe in black sheet steel at a cost of \$335 was presented to the Council by Minneapolis Steel. Due to a lack of available materials, repairs to the existing sheathing were made instead.<sup>4</sup> The riser pipe was sheathed in aluminum once materials became available after the war years; Council minutes note the sheathing was painted in 1956.<sup>5</sup> The aluminum sheathing in place today appears to be a relatively recent replacement.

Safety concerns related to open access to the water tower were raised at Council meetings in the summer of 1944. Discussions regarding the erection of a fence to prevent unauthorized access to the tower were underway in September of that year with a bid for the fencing presented in May of 1945. The cost of \$690 for fencing led the Council to seek an alternative, which involved disabling access to the tower ladder by enclosing the legs and the ladder in sheet metal. That project was completed at a cost of \$86.<sup>6</sup>

Additional alterations and repairs include repair of the tower cables in May of 1947, with a cleanout drain installed and the interior tank ladder removed in 1948.<sup>7</sup>

Later repair/replacement projects include replacement of the roof in 1968, which was undertaken due to significant deterioration, specifically to the riveted lap seams, which were allowing rain and dirt into the tank. The replacement roof was of 3/16<sup>th</sup>-inch plate steel, its form and details (including a finical vent) sympathetic to the original in scale and form. The spider rods were also replaced in 1968. Sixteen new 5/8-inch spider rods were welded in place at the top of the tank to eliminate electrolytic action. Roof and spider rods were painted using Red Lead paint T.T. P 86-C Type 2 and one coat of A-8700 Aluminum.

<sup>&</sup>lt;sup>1</sup> Village Council archives, letter from Master Tank Service Company, August 20, 1968.

<sup>&</sup>lt;sup>2</sup> Village Council minutes, 03/07/1940, 05/09/1949, and 05/26/1947.

<sup>&</sup>lt;sup>3</sup> Ibid., 04/12/1942.

<sup>&</sup>lt;sup>4</sup> Ibid., 06/28/1943.

<sup>&</sup>lt;sup>5</sup> Ibid., 05/28/1956.

<sup>&</sup>lt;sup>6</sup> Ibid., 05/07/1945 and 05/14/1945.

<sup>&</sup>lt;sup>7</sup> Ibid., 05/12/1947 and 05/10/1948.

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Name of Property County and State The Minnetonka Beach Water Tower has been repainted numerous times. In addition to the work noted in 1968, minutes of the Village Council record that repainting of the tank exterior and the interior and/or the tower structure was completed in 1937, 1942, 1948, 1950, and 1956.<sup>8</sup>

# Statement of Historic Integrity

The Minnetonka Beach Water Tower retains a good level of historic integrity with original location, setting, association, design, materials, and feeling retained.

The tower remains on its original location with historic association to the water works facility and to the community the water tower was constructed to serve retained. The water tower retains the features that define its 1928 construction design and materials, including channel legs with riveted lattice, transverse stabilizers, cross ties, conical roof with finial (1968 in-kind replacement), balcony with "X" motif, sheathed riser pipe, and ladder cage. Most notably, the Minnetonka Beach Water Tower retains the riveted steel hemispherical bottom tank that defines its typology.

Alteration of the water tower includes the 1945 addition of steel plates near the base of each leg and replacement of the metal sheath around the standpipe. A 1968 inspection of the water tower by the Industrial Commission of Minnesota found a number of deficiencies that required replacement of the wood planks on the catwalk deck with steel plate and the addition of the safety equipment (roof ladder and rails) as outlined by the State. The project was expanded by the Council to include replacement of the wood frost jacket (riser pipe sheathing) with aluminum sheets and replacement of a much-deteriorated roof and roof ventilation finial.

No additional resources are located on the resource site - the resources of the water works facility being sited adjacent to the tower, but outside the resource boundary.

Altogether, the Minnetonka Beach Water Tower retains a good level of historic integrity and stands as a prominent feature on the community landscape. People from eras spanning its existence would recognize the water tower and experience it as they would have historically.

<sup>&</sup>lt;sup>8</sup> Ibid., 8/09/1937, 08/10/1942, 05/10/1948, 06/26/1950, and 05/28/1956.

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#### 8. Statement of Significance

#### **Applicable National Register Criteria**

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
  - B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
  - D. Property has yielded, or is likely to yield, information important in prehistory or history.

## **Criteria Considerations**

(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

Minnetonka Beach Water Tower

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Areas of Significance (Enter categories from instructions.) <u>COMMUNITY PLANNING & DEVELOPMENT</u> <u>ENGINEERING</u>

Period of Significance 1928-1934

.

Significant Dates

1928

**Significant Person** (Complete only if Criterion B is marked above.)

**Cultural Affiliation** 

Architect/Builder Minneapolis Steel & Machinery Co. Hennepin County, MN County and State

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**Statement of Significance Summary Paragraph** (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Minnetonka Beach Water Tower is eligible for listing on the National Register of Historic Places under Criterion A. The tower is locally significant in its association with the history of community planning and development, specifically as the primary feature of the water works system, which enabled Minnetonka Beach's transition from the elite resort area of its early history to a community of year-round residents with the public services in place to serve that community. The water tower is also eligible for listing under Criterion C. The structure is locally significant as a well-preserved and increasingly rare form of the early 20<sup>th</sup> century water tower form known as the hemispherical bottom. The tower illustrates specific engineering advancements and practices related to water storage and service during the period of significance.

The Period of Significance is 1928-1934, which embraces construction of the water tower through completion of the associated piping required to complete a system that would provide year-round water services to the village residents. Completion of the system marks Minnetonka Beach's transition from the elite resort area of its early history to a community of year-round residents with the public services in place to serve that community. The 1928 water tower was the first and most visible component of that system and its retention represents that significant transition in the village's development. That water works system remained without major alteration until 1957-1958, when a well was dug and a ground tank was erected on the water works site. The Significant Date is 1928, the year the water tower was placed in service.

**Narrative Statement of Significance** (Provide at least **one** paragraph for each area of significance.)

The development of a water works system is a common element of municipal planning, tied to providing the services necessary to ensure the continued growth of the community. In many cases, the establishment of a water system occurs due to pressure placed by insurance companies to protect against loss to fire. In others, adding water service is a move designed to elevate the community's desirability for both residential settlement and business recruitment. At Minnetonka Beach, the community was coming into its own during an era of elevated concern for and understanding of bacterial contamination of water sources. While access to water was readily accessible due to the village's proximity to Lake Minnetonka, advances in public health specific to drinking water were front and center in the early 1920s.

Further, Minnetonka Beach was, like the other Lake Minnetonka communities, for many years a predominantly seasonal community. As the composition of residents changed, settlement shifted to one that was year-round. That change added to the need to provide a full bevy of public services, including a water system capable of supplying the community clean water for the entire year. Development of that permanent system began with completion of the water tower in 1928

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and continued through 1934 with the extension of pipes set below the frost line. With completion of the permanent water system, including a chlorination plant for disinfection, the Village Council had provided the community with ready and safe access to drinking water.

Water towers come in a variety of shapes and sizes, the form and scale in a specific community indicative of its era of construction and population of the town. From the 1890s through about 1940, the hemispherical bottom type of water tower was commonly utilized in young communities making them commonplace, but no less indicative of the community in which they were located.

With storage capacities ranging from 50,000-100,000 gallons, the utility of a hemispherical bottom water tower was limited to smaller communities. As a result, they have become obsolete in many cases, particularly in large metropolitan areas like Minneapolis-St. Paul, where towers with storage capacities exceeding 1,000,000-gallons are quickly replacing smaller towers. The Minnetonka Beach Water Tower stands as the only remaining hemispherical bottom towers within a 50-mile radius; at one time there having been at least three municipal water towers of the type on Lake Minnetonka and at least 18 towers of that type in a 50-mile radius. It should be noted that the number of non-extant, municipal towers of the hemispherical bottom type is undoubtedly higher – more extensive research into metropolitan resources is needed to fully appreciate the loss of water towers of that type.

The Minnetonka Beach Water Tower is an example of engineering practices applied to a structure that embodies the distinctive characteristics of a property type of a specific period: the Minnetonka Beach Water Tower is a hemispherical bottom, and exemplifies the evolution of water supply systems during the period from the 1890s to about 1940. By the early twentieth century, it was the typical type utilized in communities across the state and nation. The Minnetonka Beach Water Tower features distinctive characteristics, including all steel materials, a conical roof, a riveted tank with a suspended, hemispherical bottom, and a steel tower of four lattice-channel posts with diagonal tie rods. The retention of a good degree of historic integrity marks the Minnetonka Beach Water Tower as a well-preserved example of a representative and vanishing form.

Because of their prominence on the landscape, water towers commonly function as way-markers. In the many decades preceding the advent of GPS mapping technology, drivers on the plains of the Midwest could rely on water towers to help them navigate – that is no less true on the roadways and waterways of Lake Minnetonka. Over many years, hemispherical water towers in particular, with their curved bottoms, "tin cap" hats and the names of towns stenciled upon their tanks, have become familiar forms on the landscape. As the historic towers are replaced by larger versions, many towns are recognizing the connection between their water tower and community identity and are moving to preserve them. Minnetonka Beach Water Tower Name of Property Historical Background Hennepin County, MN County and State

Although its history neither began nor did it end during the late 1800s, the story of Lake Minnetonka is most familiarly tied to the period during which it became known as the "Saratoga of the West." Beginning with the 1867 arrival of the first train to the area and running through the closing years of the 19<sup>th</sup> century, Lake Minnetonka rivaled the finest resort areas in the country, drawing the affluent from Minneapolis-St. Paul and far beyond to its beautiful shores. During this period, wealthy, seasonal occupants dominated the lake population. Whether staying at one of the numerous upscale hotels constructed lakeside or inhabiting any number of sprawling "cottages" that rose on its shores, Lake Minnetonka was an elite, albeit seasonal, address. These circumstances limited the need for public services such as a water works; the resorts (e.g. Hotel del Otero at Spring Park and Hotel Lafayette at Minnetonka Beach) had their own water tower, as did some of the larger estates (e.g. Noerenberg Farm at Wayzata). That arrangement would change as the era of the "Saratoga of the West" waned.

The establishment of the St. Paul and Pacific line, which connected the Twin Cities to Wayzata and Minnetonka Mills, opened the way for development of the lake as a tourist destination. Believed by many to be the lake's first hotel, Rustic Lodge (later known as the Maplewood Inn) was opened by Samuel Gale near Breezy Point. Although far less grand than those that followed, Rustic Lodge ushered in an era that changed the very character of Lake Minnetonka.<sup>9</sup> Despite construction of multiple hotels, the accommodations at Lake Minnetonka remained substandard for a resort area hoping to lure wealthy patrons. An 1876 survey of Lake Minnetonka hotels recorded "modest hotels and boarding houses with equally modest number of customers." Still, the beauty of the area was such it was predicted that, with construction of well-appointed hotels, Lake Minnetonka would become the "Saratoga of the West" – a flattering comparison with the fashionable retreat of the east, Saratoga Springs, New York.<sup>10</sup>

Important Minneapolis figure William D. Washburn played a significant role in the lakc's progress toward becoming a resort attraction for the wealthy. In July of 1878, Washburn brought delegations from St. Louis and Cedar Rapids, Iowa to Minneapolis on his Minneapolis & St. Louis Railway to illustrate the potential of the city and nearby Lake Minnetonka as a tourist resort. Washburn's efforts were successful with two well-financed interests soon in a race to build the lake's first major resort hotel. By mid-April 1879, the Harrow House was nearing completion. The 150-room hotel, developed by a group from St. Louis, was sited with a view of Excelsior and Big Island. The 400-room Lake Park Hotel was also well underway under the auspices of the Northwestern Park Association.<sup>11</sup> The Harrow House opened on July 8, 1879

<sup>&</sup>lt;sup>9</sup> Eric Dregni, By the Water of Minnetonka (Minneapolis, MN: University of Minnesota Press, 2014), 112 and Frederick L. Johnson, The Big Water: Lake Minnetonka and Its Place in Minnesota History (Minnetonka, MN: Deep Haven Books, 2012), 37.

<sup>&</sup>lt;sup>10</sup> Johnson, 51-52.

<sup>&</sup>lt;sup>11</sup> Ibid., 52.

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Name of Property County and State (and became known as the Hotel St. Louis less than one month later) with the Lake Park Hotel opening just 19 days later.<sup>12</sup>

As the lake access point for the St. Paul and Pacific Railway, Wayzata became a major transportation hub for the rich arriving for their summer stay. The Panic of 1873 was a disaster for much of the wealthy class, limiting their numbers at the lake for some time. As a result, Wayzata saw a shift toward summer residents rather than simply vacationers to the resorts. This change led to the town's incorporation in 1883.<sup>13</sup> While not typical of the lake as a whole, this shift at Wayzata was a hint at what was to come.

Along with the influx of seasonal visitors came the establishment of other lakeside communities. Orono, located on the north lakeshore, was formally established in the spring of 1889. It has been noted that a desire to assert local control over such issues as encroaching development from Wayzata, Long Lake, and Minnetonka Beach played into the decision to formally organize the town of Orono.<sup>14</sup>

First settled in 1855, Long Lake did not incorporate until 1906 – a move spurred to prevent James J. Hill's Great Northern Railway from moving to a location unsuitable to residents. The act of incorporation triggered a law that required that a railroad station be maintained within the city limits of the village, providing the control the town sought. Until its incorporation, the lands of Long Lake were part of Orono.<sup>15</sup>

Sited on the lake's north shore, in the area between Spring Park and Minnetonka Beach, Navarre was first settled in the 1850s. The area of Navarre was for some time owned by a timber processing company; once the land was cleared, it was sold for development. At that time, the site of the Lafayette Club was located in the Navarre boundaries.<sup>16</sup>

Until its incorporation in 1951, Spring Park was part of Orono Township. One of the grandest hotels on the lake, the Hotel del Otero (1892) was located in Spring Park (Figure 04). The 1882 extension of the St. Paul, Minneapolis & Manitoba (later the Great Northern Railway) to Spring Park brought hundreds of tourists to the lake each day; a decade later the three-story Hotel del Otero was opened to provide accommodations to the expanding tourist base. The new property featured a large ballroom, screened promenade, sailboats for use by guests, lawn bowling, private beaches, a casino, and a dance pavilion. The property had its own water tower. The hotel burned down in 1945.<sup>17</sup>

<sup>&</sup>lt;sup>12</sup> Johnson, 54.

<sup>&</sup>lt;sup>13</sup> Dregni, 112.

<sup>&</sup>lt;sup>14</sup> James Roehl, Orono, Minnesota 1889-1989: 100 Years "By the Water of Lake Minnetonka" (Orono, MN: Jostens Printing & Publishing, 1989), 92.

<sup>&</sup>lt;sup>15</sup> 1bid., 103.

<sup>&</sup>lt;sup>16</sup> Ibid.

<sup>&</sup>lt;sup>17</sup> Ibid., 103 and http://forgottenminnesota.com. Last accessed 12/27/2017.

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County and State By 1892, the summer homes and boathouses of the wealthy punctuated the shoreline among the cottages, hotels, and farmhouses. Increasingly, the lake area was moving toward a more permanent population and the infrastructure to support that population would become a series of challenges to be addressed.<sup>18</sup>

The days of Lake Minnetonka as the Saratoga of the West waned as railroads pushed westward to the national parks of Montana and Wyoming, taking with them wealthy tourists in search of a new adventure. Although a number of the opulent hotels closed – some, like the first Hotel Lafayette, burning to the ground – large seasonal "cottages" of the Minneapolis-St. Paul elite continued to characterize the lake settlement. Railway service from the Twin Cities made this possible, with travel from business to summer home similar to the common commute of today. Train schedules were arranged specifically to facilitate commuting.<sup>19</sup>

The establishment of streetcar service to Lake Minnetonka in 1905 was a leveler, of sorts. Thomas Lowry's Twin Cities Rapid Transit (TCRT) began as a single line to Minnetonka in that year, but in 1906 service was opened to Excelsior and Deephaven (to the Hotel St. Louis) and, in 1907, to the refurbished Lake Park Hotel (renamed the Tonka Bay Hotel by Lowry). While the lines, which eventually stretched from the eastern terminus at Stillwater west to Lake Minnetonka, brought the wealthy tourist to the lakeshore, it also made the lake available to the masses - city dwellers seeking entertainment and relaxation for even just the day. Small-scale cottages were also appearing on the lake, making the amusements available on the lake more widely accessible.<sup>20</sup> Streetcars (including the streetcar boats, which transferred passengers across the lake between streetcar stations) carried 2-million passengers in 1907, 3.7-million by 1911, and 5.2 million by 1921.<sup>21</sup>

The Big Island Amusement Park drew day and short-term visitors from the Twin Cities to Lake Minnetonka. Thomas Lowry developed the attraction, with access via his streetcar system. In 1906 five streetcars an hour from Minneapolis and six streetcar boats transferred tourists to the island from various locations on the lake. The 64-acre site featured an amusement park with a roller coaster, carousel, boat rentals, and a log-flume, picnic grounds, and a "music casino" featuring well-known musical acts. Electric cables ran underwater to a power source on land to light the island. The centerpiece of Big Island was a 186-foot, Leroy Buffington designed, light beacon with an elevated water tank. Due to excessive operating costs, Big Island closed in 1911, with most of its buildings and equipment razed or removed by 1918.<sup>22</sup>

In 1925 the Excelsior Amusement Park opened. The Excelsior attraction remained a popular weekend getaway for Minneapolis-St. Paul residents through 1974.<sup>23</sup>

<sup>&</sup>lt;sup>18</sup> Lake Minnetonka, Images of America Series (Charleston, SC: Arcadia Publishing, 2015), 9.

<sup>&</sup>lt;sup>19</sup> Dregni, 102.

<sup>&</sup>lt;sup>20</sup> Ibid., 131.

<sup>&</sup>lt;sup>21</sup> Ibid., 135.

<sup>&</sup>lt;sup>22</sup> Lake Minnetonka, 95.

<sup>&</sup>lt;sup>23</sup> Lake Minnetonka, 95.

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A familiar story across the country is also true at Lake Minnetonka: the rise of the automobile resulted in the decline of streetcar usage. By July of 1926, that decline in use to Lake Minnetonka was significant and the TCRT ceased operation – the final line (that to Excelsior) ended in August of 1932. Streetcar service was replaced by limited bus routes, with Excelsior having bus service, while Deephaven did not.

As one frequent visitor to Minnetonka Beach, wrote, "it took the automobile, four-lane highways, and three generations to make all of Minnetonka, not a colony but a suburb. Communities where people live the year around, not just for three months. People of influence and affluence, people who belong to unions and just plain people."<sup>24</sup>

#### The Village of Minnetonka Beach

Like all of the Lake Minnetonka communities, Minnetonka Beach grew from the establishment of the area as a resort playground for the wealthy. In 1881, James J. Hill's St. Paul, Minneapolis & Manitoba Railroad (which became the Great Northern Railway in 1889) reached Spring Park and in July of the following year, Hill opened the Hotel Lafayette at Minnetonka Beach with direct service via his line (Figure 05).<sup>25</sup> Billed as "the finest hotel west of New York City," the 300-room hotel was sited at 34-feet above lake level, providing guests a commanding view from every direction.<sup>26</sup> The hotel featured three grand staircases, 10-foot wide hallways, and had a staff of 150 people. The hotel hosted some of the country's most prominent people, including General Ulysses S. Grant, Vice President Adlai Stevenson, President William Howard Taft, and President Chester Arthur – who used the Hotel Lafayette as a summer White House.<sup>27</sup>

On May 8, 1883, the area of what is now Minnetonka Beach was surveyed and platted by Adolphus H. Bode, trustee for the St. Paul, Minneapolis & Manitoba Railway, and given the resort-like name of "Minnetonka Beach on Lake Minnetonka." Until then the peninsula, of which the Village of Minnetonka Beach now comprises the easterly end, had been known as Island City. *The Excelsior Weekly* of May 16<sup>th</sup> lists 193 lots offered for sale, and 58 sold, at auction "on Minnetonka Beach last Saturday at Hotel Lafayette."<sup>28</sup> After the sale, *The Excelsior Weekly* reported "We… did not look for sales at as high prices as they brought, and we feel more confident than ever in the fulfillment of our promises, made in 1876 and '77, of the bright and grand future that awaits our lake as a summer resort … Minnetonka Beach is very fine for summer … But is comparatively new, compared with other parts of the lake that have been

<sup>&</sup>lt;sup>24</sup> Judy Soukup, *A New Village On the Lake: Minnetonka Beach 1894-1994* (Minnetonka Beach, MN: City of Minnetonka Beach, 1994), 7.

<sup>&</sup>lt;sup>25</sup> Roehl, 91.

<sup>&</sup>lt;sup>26</sup> Bergman Richards, *The Early Background of Minnetonka Beach* (Minneapolis, MN: Hennepin County Historical Society, 1957), 70.

<sup>&</sup>lt;sup>27</sup> http://lafayetteclub.com. Last accessed 12/27/2017.

<sup>&</sup>lt;sup>28</sup> Richards, 86.

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visited by tourist for years, and that lots should sell at so much higher prices than at points which are accessible at all times in the year, is a good omen for future values."<sup>29</sup>

In 1894, the Village of Minnetonka Beach (which included the area known first as Huntington's Point and then as Northwood) (Figure 06) was incorporated as a municipality.<sup>30</sup> From the time of incorporation, Minnetonka Beach remained a self-governing municipality with the power to administer local and internal affairs. Until that time it had been part of Excelsior (1858 to 1884), Medina (until 1889), or Orono townships.<sup>31</sup> Minnetonka Beach had some 296-acres of heavily wooded land and many miles of shoreline on the waters of Lake Minnetonka. The "resident population" was recorded as 209 persons occupying about 82 houses. Although no official differentiation was made between seasonal and permanent residents, early documents suggest that very few lived in the village all year.<sup>32</sup>

Although the homes in Minnetonka Beach (and on the lake, generally) were commonly described by their owners and in local histories as "cottages," many were expansive, architect-designed residences of the highest quality. The village was loosely organized around the Hotel Lafayette, the Cass Gilbert-designed Camp Memorial Chapel, and the train and boat station that linked the village with the larger lake community. In 1886, a timber bridge was constructed connecting the peninsula to the mainland on the east.

With its incorporation came all the responsibilities of an independent community, including establishment of roads, sidewalks, and public services such as electricity and water. When the Village Council approved its budget levy in August 1895, it showed \$2,000 of anticipated expenses – water supply at \$120, sprinkling at \$270, street lamps, including 40 new lamps, at \$240 plus \$200 for lighting the lamps and repairing them, \$100 for roads and bridge, \$100 for sidewalks, \$520 for village hall, and \$450 for salaries and contingencies.<sup>33</sup>

Water supply to homes in Minnetonka Beach was a challenge to individual property owners for the first several decades that homes existed in the area. While large estates and businesses often had their own water supply (e.g. the Hotel Lafayette, which had a dedicated elevated water tank), other properties shared resources. For many years, windmills dotted the landscape, marking the location of underground sources.<sup>34</sup>

Gradually, a semi-public water system came to Minnetonka Beach. In 1904, the Council granted licenses to lay pipes for distribution and sale of water to residents along Lafayette Avenue from

<sup>&</sup>lt;sup>29</sup> Richards, 88.

<sup>&</sup>lt;sup>30</sup> Ibid., 90.

<sup>&</sup>lt;sup>31</sup> Ibid., 94.

<sup>&</sup>lt;sup>32</sup> Ibid., 94 and Soukup, 57.

<sup>&</sup>lt;sup>33</sup> Soukup, 12.

<sup>&</sup>lt;sup>34</sup> Ibid., 19.

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Lafayette Place to Elm Street. In 1906 the Village Council voted to grant a franchise to N.P. Jesperson to furnish water for village residents for the next 20 years. In August of that year, the Village Council minutes record their approval of a water ordinance that reserved the right of the village to purchase the entire water works plant and system "at its then value."<sup>35</sup> The water works remained the purview of Jesperson for at least a decade.

In 1911, the Council directed Jesperson to install water meters and to provide proper notification to all users that water would not be turned on in the spring except through the meters. At the close of the season that year, Jesperson reported that the total cost of the water system had been \$8,500, with gross incomes increasing each year since the system was established: from \$1,100 in 1907 to \$2,112 in 1910.<sup>36</sup>

In August of 1921, Jesperson informed the Village Council that he intended to retire from his responsibility of running the water system and recommended that the plant become a municipal operation. Considerable discussion of the merits versus negatives of municipal ownership ensued, the strongest voices being in opposition of such a move. Rather, the Council approved hiring competent help so that "Mr. Jesperson would have more liberty."<sup>37</sup>

In 1922, by adoption of its present home rule charter, the Village was incorporated as a city of the fourth class under "the name and style of the 'Village of Minnetonka Beach." With that status the village had the power to legislate upon all matter of municipal concern, including the date of the village election.<sup>38</sup> Both the size of the village and the date of its elections set it apart from the rest of the state; from its beginnings, the City of the Village of Minnetonka Beach has been the smallest city in the state, and, for several decades, it was the only city in the state to hold annual elections in June.<sup>39</sup>

Pressures to provide various services to its residents began to be plied during this time. Requests ranging from the erection of telephone poles to a change in procedure related to controlling wandering farm animals were regular fare at meetings of the Village Council. More pressing were matters related to the provision of public services, included electricity, gas service for heating, and a uniform system for water distribution.<sup>40</sup> The need for these improvements signaled a change in the living styles at Minnetonka Beach. The establishment of a year-round fire department in 1922 provides solid evidence that the composition of the community was evolving from one dominated by seasonal occupants to one of year-round residency.<sup>41</sup>

<sup>40</sup> Ibid., 21.

<sup>&</sup>lt;sup>35</sup> Soukup 19.

<sup>&</sup>lt;sup>36</sup> Ibid., 20.

<sup>&</sup>lt;sup>37</sup> Ibid., 20.

<sup>&</sup>lt;sup>38</sup> Richards, 99.

<sup>&</sup>lt;sup>39</sup> Soukup, 26 and http://www.ci.minnetonka-beach.mn.us/history. Last accessed 12/28/2017.

<sup>&</sup>lt;sup>41</sup> Ibid., 29.

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County and State U.S. Census reports provide some understanding of the village's growth. In 1900, the year in which the village was first listed independent of surrounding areas, the population stood at 101. In 1910 the population had risen to 166. By 1920 the population had fallen to 94, but rose to 112 in 1930. In the decade from 1930 to 1940, Minnetonka Beach saw a population gain of 104 percent; a percentage increase that stands in stark contrast to that of the whole of Hennepin County with an increase of 9.5 percent. The village population continued to rise the following decade, with 376 residents reported in 1950. In 1960 the population stood at 544. In 1970, 586 people were living in 194 households and, in 1980 Minnetonka Beach had 575 residents in 204 households.<sup>42</sup> As of 2010, Minnetonka Beach had population of 539 people in 201 households.

Table 01. U.S. Census Population Numbers for Minnetonka Beach - 1900-2010

Year	Population	Household	% change
1900	101	n/a	
1910	166	n/a	+64.4
1920	94	n/a	-43.4
1930	112	n/a	+19.1
1940	229	n/a	+104.5
1950	376	n/a	+64.2
1960	544	n/a	+44.7
1970	586	194	+7.7
1980	575	204	-1.9
1990	573	n/a	-0.3
2000	614	n/a	+7.2
2010	539	n/a	+2.4

Providing water to the growing number of households became more pressing in the 1920s, at which time the community was still being served by water pumped out of Lake Minnetonka. By the fall of 1924, the Village Council was responding to concerns about water safety. At a regular council meeting on September 8, a committee was formed to secure a water sample from "the hydrant or in use in the Village" and to then submit that sample to the Chemical Department at the University of Minnesota for analysis.<sup>43</sup> That action was in response to a letter received by the Village Council from the State Board of Health.<sup>44</sup> The committee later reported that the "final analysis of the chemist shows that the water is free from any bacteria and is otherwise pure."45

The path to addressing water borne bacterial disease by chlorination was a long one. Waterborne diseases – cholera, typhoid fever, and diarrheal diseases – remained thoroughly misunderstood

<sup>&</sup>lt;sup>42</sup> Soukup, 29.

<sup>&</sup>lt;sup>43</sup> Council Minutes, September 08, 1924.

<sup>&</sup>lt;sup>44</sup> Ibid., May 11, 1925.

<sup>&</sup>lt;sup>45</sup> Ibid., November 03, 1924.

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The development of sewer systems in the country's cities, while expected to stem the problem of epidemic disease, only exacerbated the situation because the systems dumped into the sources of drinking water. In 1896 there were approximately 3,341 water works serving almost 4,000 U.S. cities and towns.<sup>46</sup> When the U.S. Census began publishing relevant statistics in 1900, about 44 percent of the American population was served by public water supplies – none of which were disinfected.<sup>47</sup> Lacking a means of disinfecting the water source, bacterial diseases remained an uncontrolled killer.

The idea of introducing a "poison" into a water supply to kill the bacteria present there was revolutionary. However, Dr. John Leal believed that, with his specialized knowledge, that such a poison, namely chlorine, could be safely and effectively used to control bacteria in drinking water. The idea to use chlorine to control bacteria in water was not unheard of, having seen limited use in Europe over the previous decade.<sup>48</sup> As of June 19, 1908, however, no water company or city in the United States was using chlorine as a disinfectant – by the end of the year that would change with the successful chlorination of water at the Boonton Reservoir in Jersey City, NJ. Dr. Leal's success at Boonton has been called a revolution, with the purification of water supplies never the same.<sup>49</sup>

That initial success may have revolutionized the understanding of chlorination, but the direct impact to American communities was far from instantancous. Rather, it wasn't until about 1920 that the acceptance of germ theory over earlier theories was widely accepted in the U.S and health officials began to adopt the principles to address bacterial diseases.<sup>50</sup> Together, chlorination and filtration processes became widely used to effectively treat public water supplies in communities of all sizes.

That policy shift was apparent at Minnetonka Beach. Despite the positive results of the Minnetonka Beach water analysis in 1924, the Village Council again received a letter from the State Board of Health in the spring of 1925. The letter pointed to "alleged impurities in the water" and called for the installation of equipment to properly chlorinate. The Village Recorder responded by supplying the findings of "the independent and thorough analysis of the water in use in said village by competent chemists" and their finding that the water was safe for domestic use.<sup>51</sup>

<sup>&</sup>lt;sup>46</sup> Michael McGuire, *The Chlorine Revolution: Water Disinfection and the Fight to Save Lives* (Denver, Co: American Water Works, 2012), 27.

<sup>&</sup>lt;sup>47</sup> Ibid., 31.

<sup>&</sup>lt;sup>48</sup> Ibid., 2.

<sup>&</sup>lt;sup>49</sup> Ibid., 3, 6.

<sup>&</sup>lt;sup>50</sup> McGuire, 66.

<sup>&</sup>lt;sup>51</sup> Village Council Minutes, May 11, 1925.

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Although the return correspondence from the State Board of Health was not located in the City files, the minutes of the May 25<sup>th</sup> Village Council meeting make it clear that the Board was not satisfied by the evidence in the independent report. The Council determined that "a new analysis of the water be secured, also that the expense of a chlorine apparatus be ascertained."<sup>52</sup> Soon thereafter, the Council moved toward what they were clearly seeing as an eventuality by adopting a resolution that began the process of establishing a water works. To that end, the Council established a means of setting aside surplus funds specifically for that purpose – the resolution was retroactive to January 12, 1925 to capture the surplus funds from the entire 1925 fiscal year. Three-thousand dollars were set apart and invested at that time.<sup>53</sup>

In September of 1926, the water committee reported on the findings of a recent analysis of the water at Minnetonka Beach. The report noted that of the "fifteen samples of water taken from the intake pipe in Lafayette Bay and also from three faucets.... six of the fifteen samples contained Bacillus Coli, and that the survey made indicates that the water is unfit for household use of drinking purposes without chlorination." The minutes note that discussion of the issue was deferred for later consideration.<sup>54</sup>

At a regular meeting of the Village Council held on November 01, 1926, Trustee, H.E. Gipson, proposed that a committee "be appointed to consider the operation of the water plant for the next year, that in his judgment, the most urgent thing at this time was the selection of a man to operate the plant another season, but that in his opinion and from his conversation with Mr. Jesperson, the Village will not be required to remove the present plant next year, and possibly not for two years. The Committee on the Operation of the Water Plant, however, was continued and will report further at a later meeting."<sup>55</sup>

Tangible progress toward the construction of the village water works and water tower is evident by the summer of 1927. That July, the committee charged with the responsibility of developing a plan met with the Northern States Power Company (NSP), representatives of which walked potential sites with members of the water committee (Figure 07). In addition to reviewing the potential sites and providing counsel about the requirements for an appropriate site for the tank and power house, NSP offered to conduct a "preliminary survey and provide a cost estimate for construction of a water tower."<sup>56</sup> After additional conversations with the NSP engineers, the water committee prepared a written report for advertising of bids for the water tower project.<sup>57</sup>

Project bids were subsequently published and, at a special meeting of the Village Council held on September 6, 1927, the bids were opened. Ten companies provided bids for all or a portion of the project. Significant among the list were Pittsburgh, Des Moines Steel Company, Minneapolis

<sup>&</sup>lt;sup>52</sup> Village Council Minutes, May 25, 1925.

<sup>&</sup>lt;sup>53</sup> lbid., June 08, 1925.

<sup>&</sup>lt;sup>54</sup> Ibid., September 15, 1926.

<sup>&</sup>lt;sup>55</sup> Ibid., November 01, 1926.

<sup>&</sup>lt;sup>56</sup> Ibid., July 25, 1927.

<sup>&</sup>lt;sup>57</sup> Ibid., August 22, 1927.

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County and State Steel and Machinery Company, and Chicago Bridge and Iron Works - these three companies dominated water tower construction in the Midwest. The low bid provided for the complete project was from William C. Fraser and Son.

Fraser's bid for the "50,000 gallon elevated tank including riser pipe, base tee and anchor bolts" came in at \$5,700. Breakout bids for "furnishing materials and constructing Pump House and steps and tank foundation piers" was proposed at \$2,350; "furnishing and installing pump and motor together with piping specified and all wiring and electrical work" or \$1,500; "automatic starter for pump and motor in accordance with specifications" for \$150; "furnishing and installing chlorinator and chlorine drum" for \$800; "furnishing and installing of all piping and connections not included [elsewhere in the proposal], the doing of all excavating and backfilling" for \$5,550. The firm also noted a proposal to "govern additions or deductions from the amount of the actual work required."

The meeting closed with the bid from William Fraser and Son Co., which totaled \$15,900, officially accepted. The agreement excluded the optional features of automatic starter, the system control from the elevated tank, and the system control at the pump house.<sup>58</sup> Although erected by the Fraser Company, the tower structure was engineered by the Minneapolis Steel and Machinery Co. (Figure 08).

William Carlisle Fraser (1869-1958) was a civil engineer with offices in Rochester, Minnesota. Born in Dover Township in 1869, Fraser was from a family of surveyors – his father having been the county surveyor for Olmsted County. The younger Fraser worked as both surveyor and civil engineer, including as city engineer at Rochester and Faribault. In addition, Fraser did contract engineering, working on projects across the state, specializing in municipal engineering – by 1910 he had built 15 water works systems or extensions and 18 sewer systems or extensions in Minnesota, Iowa, and Wisconsin. William C. Fraser served as president of the Minnesota Surveyor's and Engineers' Society and as state representative from Olmsted County from 1893 to 1907.<sup>59</sup> William C. Fraser was involved in construction of an extension of the water works system in Zumbrota, Minnesota.<sup>60</sup>

Construction of the water tower was in full swing by November. At a regular meeting of the Village Council, it was certified that sufficient work was completed to meet the contract terms for satisfactory progress. A payment in the amount of \$6,000 to William Fraser & Sons was approved at that time. Further, action was taken to hire a superintendent of the water plant. pending its completion.<sup>61</sup>

<sup>&</sup>lt;sup>58</sup> Village Council Minutes, September 06, 1927.

<sup>&</sup>lt;sup>59</sup> https://www.geni.com/ people/William-Carlisle-Fraser/3923857281740021848 and Joseph Alexander Leonard, History of Olmsted County, Minnesota (Rochester, MN: Goodspeed Historical Assn., 1910).

<sup>&</sup>lt;sup>60</sup> "Water Works – Zumbrota Minnesota," The Improvement Bulletin, May 4, 1907: 38.

<sup>&</sup>lt;sup>61</sup> Village Council Minutes, November 18, 1927.

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County and State In December 1927, the Village Council addressed the issue of paying for construction of the water works system. The council moved to borrow \$5,000 and to levy a tax for its repayment with interest. The loan was to be split into two \$2,500 "certificates of indebtedness" the first of which would come due in February of 1930 and the second in February of 1931. Interest at the rate of 5% per annum was payable semi-annually. The tax levy was on "all the taxable property in said Village of Minnetonka Beach" and was an annual "irrepealable" tax of \$3,150 in 1928 and \$2,756.25 in 1929.62

Raising the remainder of the money to pay for the water works was a challenge over the coming months, with regular reports presented at subsequent council meetings. A bill from Fraser in the amount of \$4,571.30 was presented in the early spring, with payment deferred because, as noted in the council minutes, "the village is without funds at this time to meet the said payment." The Council approved the negotiation of a note "at some bank in Minneapolis" for the sum of \$4,000 to cover the payment due, minus \$571.30, which was to be withheld pending approval of the final work.63

At the June 11, 1928 regular meeting of the Village Council, a letter was read stating that Wm. C. Fraser & Son had completed the work under contract and therefore the company was entitled to final payment. Council instructed the Recorder to write Wm. C. Fraser & Son, advising that payment of balance due them would be forthcoming in about two weeks time.<sup>64</sup>

The issue of settling Fraser's bill continued through the end of June when the final balance due of \$571.30 was again presented for payment. The bill was paid except for \$100, which was held "pending completion of unfinished work."<sup>65</sup>

The recently completed Minnetonka Beach water works, including the 50,000-gallon, hemispherical bottomed tank, was designed to serve a community that remained largely comprised of seasonal residents. Water rates for seasonal service (May 1-November 1) were fixed at \$4.00 per 1,000 cubic feet for the first 6,000 cubic feet with \$1.40 per 1,000 cubic feet over 6,000. Paying the water charges was ultimately the responsibility of the property owner, regardless of whether usage was incurred by the property owner or by a tenant. The City read the water meters at the close of the water service season or at the time a property owner closed their residence, whichever comes first.66

Collecting fees for usage was not always easy, however. One resident in particular seems to have been determined to buck the newly established system, repeatedly refusing to settle her bill even after coming to agreement with the City for a negotiated settlement. The matter eventually led to

<sup>&</sup>lt;sup>62</sup> Village Council Minutes, December 07, 1927.

<sup>&</sup>lt;sup>63</sup> Ibid., date illegible.

<sup>&</sup>lt;sup>64</sup> Ibid., June 11, 1928.

<sup>&</sup>lt;sup>65</sup> Ibid., June 25, 1928.

<sup>&</sup>lt;sup>66</sup> Ibid., September 10, 1928.

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County and State a suit against the property owner.<sup>67</sup> One issue that became problematic was an apparent lack of understanding of the responsibilities of the City versus those of property owners. At a regular meeting of the Village Council, it was reported that two parties, one a property owner and the other the occupant of the "Spears Cottage," were receiving water without meters. The Council moved that these parties be notified to provide meters and have them installed, and that in default of this being done at the end of ten days from date of such notice, the water was to be turned off. Eventually, the City passed an official resolution establishing that purchase and maintenance of water meters was the responsibility of the property owners. In case of lack of compliance, it was the right of the City to install a meter and bill the property owner for costs incurred.<sup>68</sup>

Within a few weeks of the water tower's completion, the Village Council began discussing the idea of a "winter water works system." At the July 13 meeting, the Council appointed a committee to investigate the matter and to report their findings at a special meeting of property owners.<sup>69</sup> Although no tangible action was taken for some time, the foundation was laid for the expansion of service.

New pumps and a new float in the water tank were installed in 1930. The new pumps were "approximately the same material, etc." to be supplied and installed by Wayzata businessman A.W. Day at a cost of \$767.25.<sup>70</sup> A scale for measuring the amount of gas used was installed in the pump house in 1930. The exterior of the water tank was given a new coat of paint in the spring/summer of 1931, with the interior of the tank repainted at the close of the season.<sup>71</sup>

The issue of establishing a year-round, permanent water works was part of Council discussions by late 1932. In October the water committee was tasked with obtaining plans and preparing for the installation of at least part of the permanent system yet that year. By mid-November it was reported that progress was being made on the laving of pipes below the frost line, but additional work would be held until spring. Additional plans and "arrangements" were to be made for the following spring.<sup>72</sup>

Planning for the expanded system proceeded and in December, Fraser & Son was working on the design, to be installed at the opening of the next season. The Council formally contracted with Fraser for the work and, once plans and specifications were finalized, the project was advertised for bids. William C. Fraser & Son were among eight companies to submit a bid for the work, theirs coming in near the middle of the bids. Fraser was awarded the bid, with their costs reduced by about \$1,000 to meet that of the lowest bidder - \$23,320.00.<sup>73</sup>

<sup>&</sup>lt;sup>67</sup> Village Council Minutes, September 19, 1932.

<sup>&</sup>lt;sup>68</sup> Ibid., June [illegible], 1930 and September 19, 1932.

<sup>&</sup>lt;sup>69</sup> Ibid., July 14, 1928.

<sup>&</sup>lt;sup>70</sup> Ibid., June [illegible], 1930.

<sup>&</sup>lt;sup>71</sup> Ibid., July 28, 1930 and October 12, 1931.

<sup>&</sup>lt;sup>72</sup> Ibid., October 10, 1932 and November 14, 1932.

<sup>&</sup>lt;sup>73</sup> Ibid., December 07, 1932, March 21, 1933, April 12, 1933, and April 20, 1933.

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County and State Fraser was soon at the work of expanding the water works system; by the end of May the project was approximately 50% complete. Alterations to the scope of work were made during the process, with the contract engineer responding to a variety of issues that presented themselves such as the need for pipe extensions, additional pipe insulation at specific locations, and unanticipated tapping of mains to establish the necessary connections for property owners.<sup>74</sup>

In mid-June, Fraser reported at one Council meeting, there were three points in the village where the water pipes were laid near cesspools and where seepage was liable to come in contact with the pipes. In those locations, the engineer recommended that the pipes be covered with concrete; it was so ordered. Later that month, the engineer proposed additional extensions to the system, which were also approved.<sup>75</sup>

The work to create a permanent, year-round water works system was completed by the spring of 1934; residents being given official notice in April of that year that the old summer water system would be permanently discontinued and if they had not yet tapped into the new system, they needed to do so.<sup>76</sup> In 1939, after months of low lake levels, the council voted to "put in" an artesian well for the city's water supply. Subsequent rains and the resulting elevation of the water level delayed installation of the well for several years.<sup>77</sup> The switch from lake water to an artesian well was accomplished in the early 1940s.<sup>78</sup> Of course, modifications and repairs to the system and to the individual components of the system were required on an ongoing basis, many in response to the continuing evolution of water safety standards and State mandated standards specific to municipal water towers. While not all modifications and repairs are documented in the present nomination, the 1957-1958 plan that added a ground storage tank and new water treatment building is noteworthy.

## The Hemispherical Bottom Type

The concept of storing water at a raised elevation for the purpose of creating sufficient pressure to distribute it to a population has existed in various forms since antiquity. With the advancements of the Industrial Age and the requirements that came with the development of the railway system in America, the concept of water distribution that began with the aqueducts of Rome was transformed into the design of elevated water tanks (a.k.a., water towers). The earliest examples of water towers appeared in the U.S. in the 1880s to supply the boilers of steam engines and, when towns and cities grew up along a railroad line, water tower engineering was refined to provide fire protection and to pipe water to the growing communities. Water tower

<sup>&</sup>lt;sup>74</sup> Village Council Minutes, May 22, 1933.

<sup>&</sup>lt;sup>75</sup> Ibid., June 12, 1933 and June 26, 1933.

<sup>&</sup>lt;sup>76</sup> Soukup, 30.

<sup>&</sup>lt;sup>77</sup> Ibid., 31.

<sup>&</sup>lt;sup>78</sup> Ibid., 49.

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forms and scale changed through time, a reflection of technological advancements as well as an indication of increased demand resulting from an ever-growing population.

The hemispherical bottom water tower was considered the standard of the industry from the late 1890s to about 1940. Relative to the flat-bottom tank, the curved form of the hemispherical had the advantage of significantly reducing stresses in the bottom plates because the curve deflected the downward stress of the water weight. Further, the tank's shape increased capacity and, because the curved bottom was self-supporting, the size and number of the structural members could be reduced.<sup>79</sup> The curved shape of the bottom also made securing it to the tower easier and provided ready access for ongoing maintenance. The form was also thought to be more pleasing to the eye.<sup>80</sup>

Hemispherical bottom tanks with a capacity of over 50,000-gallons (a 100,000-gallon elevated tank being considered large through ca.1910) typically had a conical roof of light, steel-plate and a projecting eave (Figure 09-10). A flagstaff was often used both as ornamentation and to provide rigidity to the roof.<sup>81</sup> Ladders were recommended to run along one of the legs beginning near the ground and extending to the roof. Such ladders required steel clip connections at regular intervals.<sup>82</sup> The balcony provided access to the tank but, just as importantly, acted as a support girder (often referred to as a stiffener) around the perimeter of the tank. Design guidelines recommended that plate steel with drain holes be utilized for the balcony deck rather than wood.<sup>83</sup>

The task of painting the water tower required considerable effort; the proper finish reduced maintenance and assured the longevity of the structure. Beginning with a clean surface was paramount, followed by a primer and a finish coat. Red lead oxide, lampblack, and linseed oil were the primary elements of the paint primer with asphaltic varnish used as the finish coat.<sup>84</sup> Most water towers of the period sported a silver tower and tank, black lettering, and a red roof.

The earliest examples of the hemispherical bottom were constructed of riveted plates, with the use of welding technology coming into play with the advent of World War II. The major companies active in water tower construction developed variations on the hemispherical form. In the mid-1920s, the Pittsburgh-Des Moines Steel Company (PDM) began using what they termed an elliptical bottom; by diminishing the elongation of the tank form, the overall height of the tower could be lessened. The structure was otherwise the same as a hemispherical tower, utilizing laced channel columns and a cone roof. At that time, unofficial company trademarks were introduced in the design of the towers' balcony stiffeners. PDM utilized a running "V"

<sup>&</sup>lt;sup>79</sup> CBI Water Tower News. Vols. 1-3 (Chicago; Chicago Bridge & Iron Co., 1914; 344.

<sup>&</sup>lt;sup>80</sup> J.N. Hazlehurst, *Towers and Tanks for Waterworks. The Theory and Practice of Their Design and Construction* (New York: John Wiley & Sons, 1904), 178.

<sup>&</sup>lt;sup>81</sup> Ibid., 197.

<sup>82</sup> Ibid., 199.

<sup>&</sup>lt;sup>83</sup> Ibid., 256.

<sup>&</sup>lt;sup>84</sup> Ibid., 256.

Hennepin County, MN

Name of Property County and State while others adopted an "X" or vertical supports. This practice provided a ready means for identifying the builder of the water tower.<sup>85</sup>

The Minnetonka Beach Water Tower retains all of the hallmark elements of a pre-World War II, hemispherical bottom type, including a riveted tank, conical roof, a four-post lattice tower with cross bracing and a balcony stiffener with a running "X" design, marking the tower as a construction by a company other than the Pittsburgh-Des Moines Steel Company.

Although the Minneapolis Steel and Machinery Co., which provided the structure to the builder of the Minnetonka Beach Water Tower, erected water towers across Minnesota and the Midwest, no comprehensive survey of water towers in Minnesota has been completed to fully document their contributions. It is not known how many were built in Minnesota or, of those constructed by the company, which remain and in what condition; those at Osseo and Elk River are National Register listed. Two other companies, the Chicago Bridge and Iron Company (now CBI, Inc.) and the Pittsburgh-Des Moines Steel Company (now PDM, Inc.), dominated the water tower construction business in the Midwest. As the typological descriptions on the pages to follow indicate, the majority of advancements in water tower engineering are attributed to one or the other of these two dominant companies.

СІТҮ	HEMISPHERICAL		HEMISPHERICAL STATUS				CURRENT FORM
	Yes	No	Extant	Non-Extant			
Minnetonka Beach	X		X		Hemispherical		
Deephaven					None		
Excelsior					Elevated Spheroid		
Greenwood					None		
Minnetonka					Pillar Pedestal		
Minnetrista	X			X	Elevated Spheroid		
Mound					Elevated Spheroid		
Navarre					Double Ellipsoidal		
Orono					Pillar Pedestal		
Shorewood					Elevated Spheroid		
Spring Park					Elevated Spheroid		
Tonka Bay	X			X	Elevated Spheroid		
Wayzata					Double Ellipsoidal		
Woodland					None		

Table 02. Lake Minnetonka Municipal Water Towers

<sup>&</sup>lt;sup>85</sup> Jim Foster, *Towering Over America: The 100 Year History of Pitt-Des Moines, Inc.* (Pittsburg, PA: Pitt-Des Moines, Inc., 1992), 39.

Name of Property

Hennepin County, MN County and State

At the time the Minnetonka Beach Water Tower was placed in service in 1928, there appear to have been three municipal water towers of the hemispherical bottom type in the communities located around the lakefront (Table 02). Today, the Minnetonka Beach Water Tower stands as the only remaining hemispherical bottom municipal water tower on Lake Minnetonka. Further, it is one of just eight of the type to remain in a 50-mile radius (Table 03).

Table 03. Hemispherical Water Towers Within a 50-mile Radius of Minnetonka Beach

CITY	STATU	JS
	Extant	Non-Extant
Annandale		X
Anoka		X
Belle Plaine		X
Buffalo		X
Cokato		X
Dassell		Х
Elk River	Х	
Gaylord	X	
Hamburg	X	
Hampton	X	
Medina		X
Minnestrista		Х
New Brighton		X
Osseo	X	
Robbinsdale	Х	
Silver Lake	Х	
Tonka Bay		Х
Waconia	X	

# Summary

The development of a water works system is a common element of municipal planning, central to ensuring the continued growth of a community. Minnetonka Beach was for many years a predominantly seasonal community. As the population shifted to year-round residency, the village began to develop an array of public services; establishment of a permanent water system began with erection of the water tower in 1928 and continued through 1934. With its completion, the Village Council had provided the evolving community with ready and safe access to drinking water.

The Minnetonka Beach Water Tower is representative of the hemispherical bottom type, featuring all of the distinctive characteristics of the type. Because of its prominence on the landscape, the Minnetonka Beach Water Tower is a way-marker for automobilists and landlubbers alike. As the last surviving example of its type on Lake Minnetonka, the water tower stands as the sole representative of a vanishing form.

#### 9. Major Bibliographical References

- Atlas of Hennepin County, Minnesota. Minneapolis, MN: Hennepin Atlas and Publishing Co., 1913.
- CBI Water Tower News. Vols. 1-3 (Chicago: Chicago Bridge & Iron Co.), 1914: 344.
- City of Minnetonka Beach. Village Council Meeting Minutes & Vertical Files. Minnetonka Beach, MN.
- Dregni, Eric. By the Water of Minnetonka. Minneapolis, MN: University of Minnesota Press, 2014.
- Foster, Jim. Towering Over America: The 100 Year History of Pitt-Des Moines, Inc. Pitt-Des Moines, Inc., 1992.
- Hazlehurst, J.N. Towers and Tanks for Waterworks. The Theory and Practice of Their Design and Construction. New York: John Wiley & Sons, 1904.
- Hudson, Horace Bushnell. A Half Century of Minneapolis. Mpls., MN: Hudson Publishing Co., 1908.
- Johnson, Frederick L. *The Big Water. Lake Minnetonka and Its Place in Minnesota History.* Minnetonka, MN: Deep Haven Books, 2012.
- Lake Minnetonka. Images of America Series. Charleston, SC: Arcadia Publishing, 2015.
- Mathis, Gregory R. "Steel Water Towers Associated With South Dakota Water Systems, 1894-1967: An Historic Context." Prepared for South Dakota State Historical Society. St. Paul, MN: The 106 Group, 2012.
- McDowell, Alexa. "Elk River Water Tower." National Register of Historic Places nomination. December 12, 2011.
- McDowell, Alexa. "Osseo Water Tower." National Register of Historic Places nomination. June 05, 2017.
- McGuire, Michael. The Chlorine Revolution: Water Disinfection and the Fight to Save Lives. Denver, CO: American Water Works Assn., 2012.
- Richards, Bergmann. *The Early Background of Minnetonka Beach*. Minneapolis: Hennepin County Historical Society, 1957.

Hennepin County, MN County and State

- Roehl, James. Orono, Minnesota 1889-1989: 100 Years "By the Waters of Lake Minnetonka." Orono, MN: Jostens Printing & Publishing, 1989.
- Speng, Ronald E. "They Didn't Just Grow There building Water Towers in the Post-War Era." Minnesota History [Winter 1992]: 131-141.
- Soukup, Judy. A New Village On the Lake: Minnetonka Beach 1894-1994. Minnetonka Beach: City of Minnetonka Beach, 1994.
- Ziebarth, Marilyn. "Minnesota Tower on the National Register of Historic Places." *Minnesota History* [Winter 1992]: 142-144.

## Archives 4 1

City of Minnetonka Beach. Public Records. City Hall. Minnetonka, Minnesota.

Westonka Historical Society. Orono, Minnesota.

#### Online Sources

- Minnesota Department of Health. "A Look at Water Towers." http://www.health.state.mn.us/divs/eh/water/com/waterline/featurestories/watertowers.ht ml. Last accessed 12/15/2017.
- Minnesota Historical Society Collections Online (Historic images). http://collections.mnhs.org/cms/web5/media.php?irn=10174853&width=640&height=64 0. Last accessed 02/27/2015.

Minnesota Reflections. http://www.reflections.mndigital.org. Last accessed 12/20/2017.

#### Topographic Map.

http:/store.usgs.gov. Last accessed 12/13/2017.

University of Minnesota Libraries. Digitized Plat Maps and Atlases. http://geo.lib.umn.edu/twin\_cities\_maps/reference/map01452. Last accessed 12/28/2017.

Minnetonka Beach Water Tower

Name of Property

Hennepin County, MN County and State

#### Previous documentation on file (NPS):

- \_\_\_\_\_ preliminary determination of individual listing (36 CFR 67) has been requested
- \_\_\_\_\_ previously listed in the National Register
- \_\_\_\_\_previously determined eligible by the National Register
- \_\_\_\_\_designated a National Historic Landmark
- \_\_\_\_\_ recorded by Historic American Buildings Survey #\_\_\_\_\_
- recorded by Historic American Engineering Record #\_\_\_\_\_
- recorded by Historic American Landscape Survey #

#### Primary location of additional data:

- X\_\_\_\_ State Historic Preservation Office
- \_\_\_\_ Other State agency
- \_\_\_\_\_ Federal agency
- \_\_\_\_ Local government
- \_\_\_\_\_ University
- \_\_\_\_ Other
  - Name of repository:

## Historic Resources Survey Number (if assigned): <u>HE-MBC-017</u>

#### 9. Geographical Data

Acreage of Property \_\_\_\_less than one-acre

Use either the UTM system or latitude/longitude coordinates

#### Latitude/Longitude Coordinates

Datum if other than WGS84:\_\_\_\_\_\_(enter coordinates to 6 decimal places)

1. Latitude: 44.940216	Longitude: -93.583713
2. Latitude:	Longitude:
3. Latitude:	Longitude:
4. Latitude:	Longitude:

Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State

Verbal Boundary Description (Describe the boundaries of the property.)

Figure 01. Parcel Map - 2018



Imagery ©2017 DigitalGlobe, U.S. Geological Survey, Map data ©2017 Google 100 ft

The Minnetonka Beach Water Tower is situated on an approximate 5-acre, city-owned parcel (marked in red). The boundary of the Minnetonka Beach Water Tower encompasses only that land directly and historically associated with the function of the water tower (indicated in blue). As a result, the water tower boundary – measured from the outside edge of the base of each tower leg – is approximately 32-feet square.

Boundary Justification (Explain why the boundaries were selected.)

The resource boundaries embrace the 1928 Minnetonka Beach Water Tower. The water tower is the visible component of the city water works as it evolved over the period from 1928 to 1934, establishing year-round water service and marking the community's transition from a resort community to one of a permanent, year-round character. The adjacent facilities of the water works plant post-date the period of significance (1928-1934) and as such do not contribute to the significance of the property.

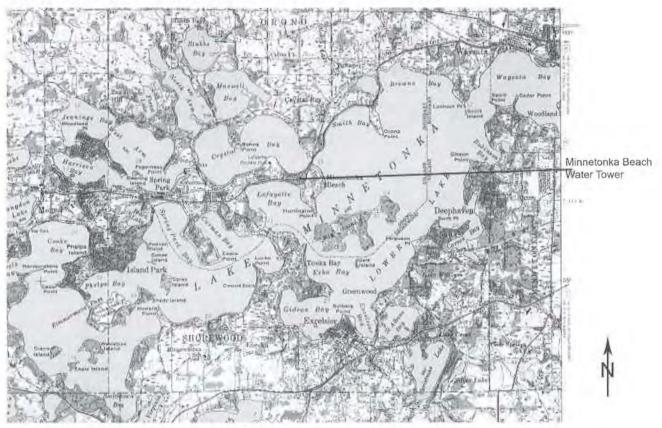
Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State

# 10. Form Prepared By

name/title: <u>Alexa McDowell/Architect</u> organization: <u>AKAY Consulting</u> street & number: <u>4252 Oakland Aver</u>	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	torian		_
city or town: <u>Minneapolis</u> e-mail <u>alexa@akayconsulting.com</u>	_state: _	MN	zip code:	55407
telephone:515-491-5432 date:01/25/2019				

#### Additional Documentation

Figure 02. USGS 7.5 Minute Topographic Map – Lake Minnetonka Quad – 1958



(SOURCE: http://store.usgs.gov. Accessed 12/015/2017).

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Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State

# Figure 03. Aerial Site View - 2018



(SOURCE: www.maps.google.com. Last accessed 09/13/2018).

The city-owned site upon which the water tower is located, is outlined in red with the location of the tower itself highlighted in red. This nomination is limited to the tower and the footprint of the site directly beneath the tower.

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Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State



Figure 04. Hotel del Otero – Spring Park – ca.1930

(Image courtesy of the Westonka Historical Society.)

The Hotel del Otero was one of the grand hotels on Lake Minnetonka. Like the Hotel Lafayette, and other large properties, the hotel had its' own water system.

Figure 05. Lafayette Hotel - Minnetonka Beach - ca.1882



(Image courtesy of the Westonka Historical Society).

Built in 1882, the original Hotel Lafayette was served by the Minneapolis, St. Paul & Manitoba Railway (later the Great Northern). This historic image illustrates the hotel's impact on the landscape, its relationship to the rail line, and its proximity to the lake and lake transportation. After closing for the season in 1897, the hotel burned to the ground. After Hill transferred the deed to the founders of the

Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State

Lafayette Club in 1897 (apparently, shortly before the fire destroyed the hotel), the resort was rebuilt and became known as the Lafayette Club (extant).

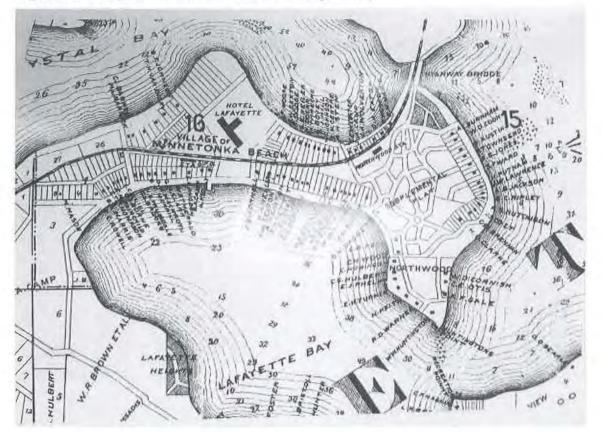
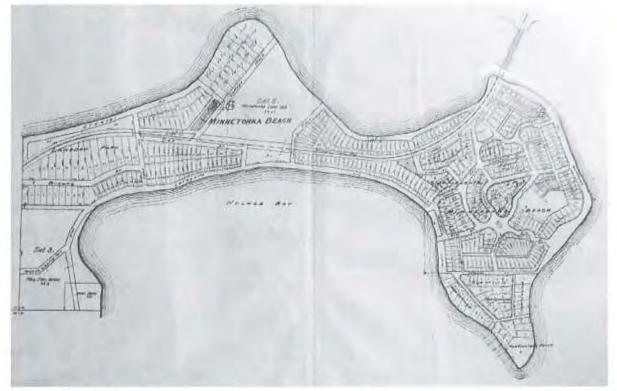


Figure 06. Village of Minnetonka Beach Plat Map - 1896

(Source: University of Minnesota Libraries. http://geo.lib.umn.edu/. Last accessed 12/28/2017.)

In this excerpt from the 1896 C.E. Cooley plat map we see the early layout of the Village. At the time, the mark of James J. Hill was still apparent with the Great Northern Railway bisecting the community and the Hotel Lafayette occupying a prime piece of property near its center.

Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State



# Figure 07. Village of Minnetonka Beach Plat Map - 1913

(SOURCE: City of Minnetonka Beach).

By 1913, considerably more lots had been platted, particularly in the area of the Supplement Plat, which is where the water tower was constructed in 1928 (highlighted).

Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State

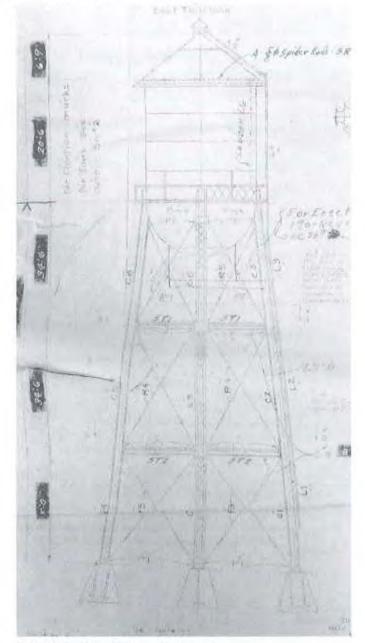


Figure 08. Minnetonka Beach Water Tower Plans - 1927

(SOURCE: City of Minnetonka Beach)

Design plans for the Minnetonka Beach Water Tower were supplied by Minneapolis Steel and Machinery Co. to the project contractor, William C Fraser & Son.

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Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State

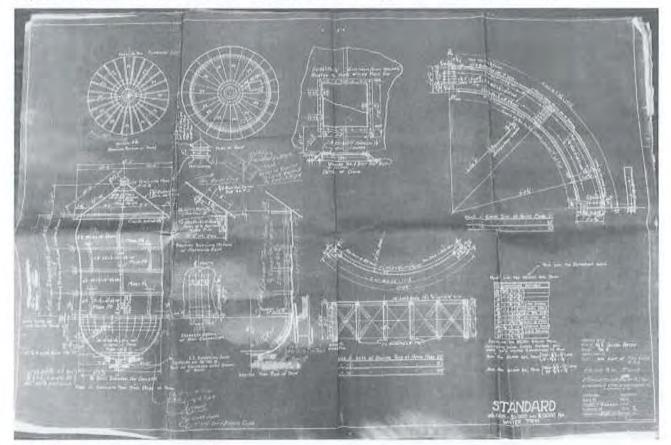


Figure 09. Standard Plans for 40,000-50,000 Gallon Hemispherical Water Towers - 1927

(SOURCE: City of Minnetonka Beach)

These standard plans for 40,000-50,000-gallon hemispherical water towers were prepared by Minneapolis Steel. Once work for the project was contracted, a set of drawings specifically for Minnetonka Beach were prepared by Minneapolis Steel for use by the project contractor, Fraser & Son.

Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State

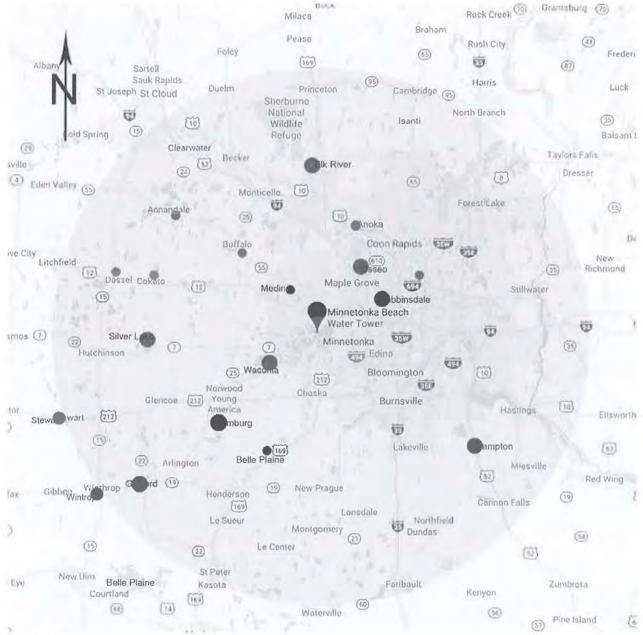
This List For	Reference only
RIVE LIST FOR 40,000 GAL. TANK	
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GOMPLING JOURL EXCESS NUMBER BUT. PORT NOLLOR GALLON THANK. INCLUDING USUAL EXCESS NUMBER BUT. PORT NOT INCLUDE CONNECTIONS TO FORT ROD. FOR 50,000 GAL. TRAK 450-50×12 LONG 15-50×12 LONG	GENERAL NOTE RIVETS 58 & UNLESS NOTED HOLES WAS & INSPECTION BY FAINT ONE CORT OF REALSHD
ADD, Re 60,000 GAL. TANK \$ 900-50 + 12 LONG	State and the second
	MINNEAPOLIS STEEL & MACHINERY CO.
STANDARD	APPROVED ENGINEER MADE BY DATE TRACED BY NICHOMS LATE CHECKED BY DATE 2
AD, 000- 50, 000 AND CODOO GAL.	ORDER NO H 8035 SHEET NO.

Figure 10. Standard Specifications for 40,000-Gallon Hemispherical Water Towers - 1927

(SOURCE: City of Minnetonka Beach)

These standard specifications for 40,000-gallon hemispherical water towers were prepared by Minneapolis Steel. They were replaced by specifications specifically for the Minnetonka Beach water tower.

Minnetonka Beach Water Tower Name of Property Hennepin County, MN County and State



# Figure 11. Map of Hemispherical Water Towers Within a 50-mile Radius of Minnetonka Beach

(Baseline Map: http://maps.google.com. Last accessed 09/20/2017)

Green circles note locations of non-extant hemispherical bottom water towers, while red circles denote hemispherical bottom water towers retained within a 50-mile radius of Minnetonka Beach. Lacking a full

Sections 9-end page 41

### Minnetonka Beach Water Tower

#### Hennepin County, MN County and State

Name of Property survey of the state's water towers, the information in this map serves as a suggestion that approximately half of hemispherical water towers in this vicinity are likely non-extant. That percentage will only increase as development surrounding the metropolitan area continues.

# Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

# Photo Log

Name of Property: Minnetonka Beach Water Tower

City or Vicinity: Minnetonka Beach

County: Hennepin State: MN

Photographer: Alexa McDowell

Date Photographed: 10/10/2018, unless otherwise noted

Description of Photograph(s) and number, include description of view indicating direction of camera:

1 of 16	Aerial View of the water tower site (10/17/2017)
2 of 16	View of the water tower site, looking northeast across Lafayette Bay on Lake Minnetonka (10/17/2017)
3 of 16	View of the water tower site, looking northwest across Shoreline Drive (10/17/2017)
4 of 16	View of the water tower site, looking northeast across Woodbridge Road (10/17/2017)
5 of 16	View of the water tower, looking west along Woodbridge Road (10/17/2017)
6 of 16	View of the water works plant, looking north from Woodbridge Road (10/17/2017)
7 of 16	View of the water works plant, looking northeast toward the 1958 ground tank.
8 of 16	View of the water works plant, looking northeast toward the 1958 ground tank.

#### Minnetonka Beach Water Tower Name of Property

Hennepin County, MN County and State

- 9 of 16 View of the water works plant, looking northeast toward the 1958 ground tank.
- 10 of 16 View of the water tower, looking up from within the tower legs
- 11 of 16 View of the water tower tank showing its riveted, hemispherical bottom, balcony stiffener with X detail, lattice girder trestle legs, access platform, caged ladder, and riser pipe.
- 12 of 16 View of the tower structure with lattice-girder legs set on concrete plinth blocks, cross cables, stabilizing cross bars, and center riser pipe.
- 13 of 16 View of the tower's riser pipe (with aluminum sheathing), which is bolted to a concrete plinth at grade.
- 14 of 16 View of the tower leg, which are bolted to plinth blocks
- 15 of 16 View of the tower legs, which were encased in steel plates in 1942
- 16 of 16 View of the tower builder's plate: "1928 Minneapolis Steel and Machinery Co Builders Minneapolis Minn."

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

































### UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

ņ

### NATIONAL REGISTER OF HISTORIC PLACES EVALUATION/RETURN SHEET

Requested Action:	Nomination	
Property Name:	Minnetonka Beach Water Tower	
Multiple Name:		
State & County:	MINNESOTA, Hennepin	
Date Recei 10/30/20		
Reference number:	SG100004758	
Nominator:	SHPO	
Reason For Review:		
<b>X</b> Accept	ReturnReject <b>12/16/2019</b> Date	
Abstract/Summary Comments: Minnesota has nominated several water towers. The nomination for Elkes River (#12000284) includes a comprehensive typology (not cited in this nomination).		
Recommendation/ Criteria		
Reviewer Roger	Reed Od Je Discipline Historian	
Telephone (202)35	Date 12/16/19	

DOCUMENTATION: see attached comments : No see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.

### Minnesota State Historic Preservation Office 50 Sherburne Ave., Suite 203, St. Paul, Minnesota 55155 651.201.3292



- TO: Joy Beasley, Keeper National Register of Historic Places
- FROM: Denis Gardner National Register Historian MN SHPO

**DATE:** 10/23/19

NAME OF PROPERTY: Minnetonka Beach Water Tower

COUNTY AND STATE:

Hennepin County, Minnesota

 SUBJECT:
 National Register:

 Nomination
 Multiple Property Documentation Form

 Request for determination of eligibility
 Request for removal (Reference No. )

 Nomination resubmission
 Boundary increase/decrease (Reference No.

 Additional documentation (Reference No.

## **DOCUMENTATION:**

- Original National Register of Historic Places Registration Form
- Multiple Property Documentation Form
- Continuation Sheets
- Removal Documentation
- Photographs
- CD w/ image files
- Digital Map(s)
- Sketch map/photo key
- Correspondence
  - Owner Objection
    - The enclosed owner objections
      - Do Do not Constitute a majority of property owners

)

STAFF COMMENTS: