

How Minneapolis Built North America's First Public

Natural Swimming

By Benjamin Johnson



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An aerial view of Webber Park Natural Swimming Pool. Every 12 hours, the 500,000 gallons of water in this pool circulates through a regeneration basin where contaminants are removed, and the water is then pumped back into the pool.

Pool

Sunshine beamed down on hundreds of people enjoying the Webber Park Natural Swimming Pool (Webber NSP) on a beautiful July afternoon. Toddlers sat, happily splashing in the shallow pool area while older kids lined up for a turn to show off their aerial acrobatics on a nearby raised jumping platform. Further down, adults swam, paddle-kick-breathing their way through 25-meter laps, and on lush green grass surrounding the entire spectacle families stretched out, soaking in the sunshine that sustains Minnesotans through winter's dark, frigid grasp.

Freshwater frolicking is a fairly common sight in Minneapolis — the city's official logo features the slogan "City of Lakes" printed underneath a sailboat, and the Minneapolis Park and Recreation Board (MPRB) recorded close to 120,000 visits at its 12 public beaches in 2015. However, the recreation enjoyed at Webber NSP is much different than any of the city's beaches



This photo from 1925 shows the original Webber Pool, built with money donated by philanthropists John and Mary Webber.



or any other pool in North America. It's the product of innovative science and engineering made possible through years of grassroots neighborhood advocacy, creative fundraising and political maneuvering.

A Century-Old Legacy

The Webber NSP became the first public natural swimming pool in North America when it opened on July 24, 2015, more than a century after the first freshwater outdoor public pool opened at Webber Park. The 21,000-square-foot pool doesn't use any chemicals to cleanse its water. Instead, water cycles through custom filters and an adjacent, 16,500-square-foot regeneration basin containing approximately 7,000 native aquatic plants that remove contaminants naturally. A complete cycle — 500,000 gallons of water drained out of the pool, circulated through the regeneration basin and pumped back into the pool — occurs every 12 hours.

"It's interesting how we've come full circle at Webber Park," said MPRB Commissioner Jon Olson, who represents North Minneapolis, where Webber Park is located. "Pollution forced us away from natural swimming decades ago, but, now, better technology and a greater understanding of ecological processes gave us an

opportunity to return to the freshwater, chemical-free experience."

Natural swimming pools have been operating in Europe since the 1990s, so the science behind the self-cleaning technology isn't completely new. The bottom of the regeneration basin is lined with layers of gravel designed to snag potentially harmful bacteria. Native aquatic plants filter out contaminants trapped in the gravel and provide habitat for turtles and frogs, just like Minnesota's wetlands have done for centuries. In the pool, custom-made robotic vacuums scour the liner every night, removing algae and debris left by swimmers.

Shortly after Shingle Creek was dammed, local philanthropists John and Mary Webber donated money to construct a two-story bathhouse and public pool that used water diverted from the creek. The John Deere Webber Memorial Baths opened in 1910 and attracted thousands of swimmers each summer. Upstream pollution forced a change to chlorinated water in 1927, and the pool was relocated next to a new recreation center in 1979, where it stood until it closed in 2010.

Opportunities and Challenges

The most recent Webber Park master planning process coincided with the pool closure. Neighborhood residents

and park users had an opportunity to think broadly about which assets, services and values should be prioritized at the park during the coming decades.

"The community championed eco-friendly design and innovation during the extensive engagement process regarding the park's master plan, and specifically on the topic of how to replace the pool," remembered MPRB Superintendent Jayne Miller. "Building a natural swimming pool aligned perfectly with both the neighborhood's history and its priorities looking forward."

North Minneapolis has struggled economically for decades. The median annual household income in the Webber-Camden community is about \$45,000, roughly \$20,000 below the median for the entire Minneapolis-St. Paul metro area. Also, access to the Mississippi River in North Minneapolis is limited by the waning legacy of industrial riverfront use and almost all of Minneapolis' lakes reside miles away.

"Our commitment to equity certainly influenced the decision to build a natural swimming pool at Webber Park," Commissioner Olson said. "We sincerely believe North Minneapolis should have access to the same level of park amenities as every other part of the city, and this was a prime opportunity to follow through on that belief."

The first challenge encountered was a Minnesota state law mandating chemical treatment of all public swimming pools. MPRB lobbyists worked with state lawmakers to develop and garner support for legislation granting the Webber NSP a special exemption from that law. In addition, more state legislation was needed to make Webber Park eligible for regional park funds, which helped pay for the pool's \$7.1 million price tag. The necessary legis-

lation passed in 2012, ground broke on the project in 2013 and funding was secured by 2014, but there were still more challenges to overcome.

The winter of 2012-2013 was unusually cold, delaying construction as workers waited for the ground to thaw. Then, June 2013 brought record-breaking rainfall, wreaking havoc at the construction site. Finally, two months before the pool opened staff discovered the robotic vacuums designed to clean the pool liner didn't work. New vacuums were ordered, but it would take several months to have them custom-built and shipped from Europe. For most of the 2015 season, pool maintenance crews hand vacuumed the liner.

“Effectively communicating the various challenges we encountered and the solutions to those challenges was critical to maintaining commu-

nity support,” said Superintendent Miller. “We had a very successful first season, in large part due to our incredibly dedicated staff.”


Who's Next?

The Webber NSP drew 9,202 visitors over seven weekends (Friday-Sunday, plus Labor Day) in 2015. The new robotic vacuums work well and more lifeguards and maintenance staff are included in the 2016 budget to expand pool hours to six days per week this summer. Outdoor education opportunities also figure heavily into the park's future plans. Hands-on programs centered on caring for and studying the regeneration basin and understanding aquatic habitats and their inhabitants are currently in development.

We hope the Webber NSP is the model cities emulate when residents ask public agencies to explore the fea-

sibility of a natural swimming pool. It took a lot of work to make it happen: political capital to obtain a legislative exemption allowing a non-chlorinated public pool, fundraising from multiple public agencies to pay for the project and troubleshooting from staff to ensure high water quality.

Now, we're excited to share knowledge gleaned from the experience to help make the next public natural swimming pool even better. Representatives from cities across North America have already visited for tours and information on building a public natural swimming pool.

The question isn't if this project is replicable: it's which city will be next? 

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