City-Wide Aquatic Facilities Master Plan
Sioux Falls, South Dakota
2013
City-Wide Aquatic Facilities Master Plan 2013

Sioux Falls, South Dakota

Completed by:

Contact:
Kevin Post
10733 Sunset Office Dr.
St. Louis, MO 63127
314-894-1245
Table of Contents

Introduction .............................................................. 1
   Existing Facility Review ........................................ 1
   Demographic Research ....................................... 3
   Community Input ................................................. 4
   Public Comments ................................................ 4

Demographic Characteristics ........................................ 7
   Population .......................................................... 7
   Weather ............................................................. 9

Area Provider Analysis .............................................. 11
   Local Facilities .................................................... 11
   Benchmark Facilities ......................................... 13

Aquatic Master Plan .................................................. 19
   Aquatic Center Toolbox ...................................... 19
   Opinion of Revenue .......................................... 33
   Opinion of Expenses ......................................... 36
   Studied Implementation Scenarios ..................... 40
   Site Analysis ...................................................... 43
   Implementation / Phasing ................................... 44

Appendix ................................................................. 45
   Facility Audit Report ......................................... 45
   Executive Summary .......................................... 46
   Pool Items ......................................................... 49
   Conclusion ......................................................... 77
Introduction

The purpose of the Sioux Falls City-Wide Aquatic Facilities Master Plan is to review the existing aquatic facilities via pool audits, review the change in demographics, and meet with the community for input in order to develop an implementation plan that includes recommendations on the types, sizes and locations of the aquatic facilities within Sioux Falls for the next 10 years.

Existing Facility Review

The City of Sioux Falls existing aquatic facilities include:

- Family Aquatic Centers
  - Drake Springs Family Aquatic Center
  - Laurel Oak Family Aquatic Center
  - Terrace Park Family Aquatic Center

- Traditional Pools (All have wading pools connected)
  - Frank Olson Pool
  - Kuehn Park Pool
  - Spellerberg Park Pool

- Wading Pools/Spray Parks
  - McKennan Park
  - Pioneer Spray Park

Existing Facility Locations

![Map of Sioux Falls Aquatic Facilities](image-url)
Existing Facility Service Areas

Audit Overview
The end of a pool’s useful life is 30-50 years when they become physically and functionally obsolete. Due to the age, the traditional pools do not meet current codes or industry standards for filtration rates, sanitation standards, and pool slopes and configurations. Replacement needs to be considered since they are too old to repair or renovate. See the full Audit in the Appendix.

Existing Service Areas without Traditional Pools
Existing Facility Attendance Summary

<table>
<thead>
<tr>
<th>Pool Location</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drake Springs</td>
<td>21,161</td>
<td>87,444</td>
<td>77,517</td>
<td>73,353</td>
<td>80,477</td>
</tr>
<tr>
<td>Terrace</td>
<td>80,685</td>
<td>67,692</td>
<td>72,120</td>
<td>73,655</td>
<td>75,497</td>
</tr>
<tr>
<td>Laurel Oak</td>
<td>70,870</td>
<td>52,868</td>
<td>59,045</td>
<td>56,621</td>
<td>60,480</td>
</tr>
<tr>
<td>Kuehn</td>
<td>47,292</td>
<td>35,922</td>
<td>39,069</td>
<td>41,908</td>
<td>42,100</td>
</tr>
<tr>
<td>Frank Olson</td>
<td>37,066</td>
<td>30,317</td>
<td>31,030</td>
<td>27,465</td>
<td>32,761</td>
</tr>
<tr>
<td>McKennan</td>
<td>20,540</td>
<td>19,288</td>
<td>22,106</td>
<td>20,547</td>
<td>26,078</td>
</tr>
<tr>
<td>Spellerberg</td>
<td>29,980</td>
<td>20,916</td>
<td>18,882</td>
<td>22,612</td>
<td>22,060</td>
</tr>
<tr>
<td>Pioneer</td>
<td>19,644</td>
<td>17,930</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Note: Average days of operation between 70-80

Existing Facility Summary of Findings

- Traditional Pools have reached the end of their useful life and need to be replaced in the next several years (see audit in appendix for additional information)
  - Functionally and physically obsolete
  - Traditional pools not as well attended as modern FAC’s
- Need for indoor water
  - Need opportunities for year round programming
    - Children
    - Seniors/Veterans
    - Lesson programming
  - Other indoor providers at capacity
- Limited opportunity for most residents
- Overlapping service areas
  - Spellerberg and Frank Olson areas are served by other existing outdoor pools
- Gaps in growth areas
  - Need additional capacity in Southwest region

Demographic Research

1. The population base for the City of Sioux Falls is projected to increase from 158,500 in 2012 to 167,300 by 2017.
2. Per capita income for the City of Sioux Falls is 2% lower than the national average, and median household income is right at the national average.
3. The 0-14 age group is 27.1% of the City of Sioux Falls’ population compared to the national average of 26.5%.
4. The median age for the city is younger than the national average (34 compared to 37 respectively).
Community Input

The consultant conducted five focus group meetings and one public meeting representing 100+ individuals and 20+ groups including:

- Spellerberg Neighbors
- Chamber of Commerce
- Sports Authority
- B&G Club
- Wild Water West
- YMCA
- Local swim teams
- Wellness Centers

The community supports the current aquatic system and recommends the continuation with strong aquatic support for subsidized entry and easy access / convenient locations. They revealed the need for indoor swimming with year-round programming, swim lessons, and winter time recreation opportunities. They also requested the need for more indoor and outdoor lap lanes like the facility at Drake (but not that small and crowded), more fun amenities for kids, and separate areas for adults.

Public Comments

On March 28th, a public input session was held. The goal of the meeting was to present the recommendations to the public, allow everyone an opportunity to ask questions regarding the process and research completed, and receive written comments regarding personal opinions and suggestions. The following is a summary of the comments received from this meeting.

Need for Indoor

- Good Analysis! Bussing from FAC to indoor facility should be offered for inclement weather. Indoor pool is needed.
- Build it now! Build it at Spellerberg! It's cold here - we need an indoor year-around facility. Great presentation!
- Option #1 looks great - We really need a public indoor pool in Sioux Falls and we would love to see a 50m pool.
- I like the thought of an indoor aquatic center. I have young kids and it would be a great winter activity.
- Having young children and swim team members, I support an indoor aquatic center. This is a long time coming and hope it doesn't take several more years to build. If you build it, they will come!
- We need an indoor pool in SF for a community pool and Spellerberg is the best location. Also, I think putting an 50m pool (outdoor) at Drake Springs would help. You would have an outdoor option for the swim teams and you could create extra revenue by keeping Drake open during meets and getting their siblings to utilize those pools.
- SF NEEDS an large indoor facility. Other communities are passing SD's largest city by. SF should be a leader, not a bystander community. The economic impact for SF is huge!
- We need an indoor pool for competitive swimming.
• Let's not be talking about an indoor aquatics center 10-15 years from now like we did with the events center. That would be a big mistake!
• Our city needs a large indoor facility. The residents need a place to swim YEAR round. The swim teams in town could host meets and bring in dollars for our local economy. Change is scary, but the city of SF must grow and keep up with the residents' needs.
• If we had an indoor 50m pool, we could hold meets like zones and all-stars which draws kids and their families from 8-10 states. It would make more money for hotels, restaurants, gas stations and more.

**Spellerberg – FOR**

• Lived in neighborhood of the VA for almost 27 years. Purchased, married, raised a child, now an empty-nester. Thank you to SFPR for considering the Spellerberg site for a multi-million dollar infusion of much needed infrastructure and economic development in my neighborhood.
• Please adopt Option #1! The "pie" will grow - hopefully there will be resources to include other 50m pools indoor or outdoor. We have the need! Take the lead!
• Spellerberg's central location is ideal for more usage by local and distant people.
• I appreciate the extensive study & consideration to aquatic facility needs - am happy to see Spellerberg considered for a more useful/useable indoor pool - our city needs this for all ages! A central location is logical & the space is available - let's use it! Traffic will be spread out and not everyone is going to use the facility at one time.
• Why not make 1 big one in the center of town? We built the events center, why not this?
• I am a swimmer and the future of SF and the younger generation. I think Spellerberg is perfect!
• As a resident of Sioux Falls and a parent of children who swim at Spellerberg Pool 4-5 days per week, I strongly support Option #1. We absolutely need an indoor pool with a 50m x 25y pool.

**Spellerberg – AGAINST**

• I'm afraid the large indoor is going to make that worse and not just in front of our rental, but also along the "tight" side of the street and the surrounding area. Please know we are for an indoor pool, but I just don't agree with the location. adding that facility there it's going to make it harder to cross Western and not just for our tenants, but for the kids that use that park who live east of Western.
• I support an indoor aquatics center, but oppose the proposed location at Spellerberg Park.
• Spellerberg Park is not the best location for the large aquatic center. It does not provide room for development around the new facility. I support a new aquatic center.
• Free land at Sanford! Federal contingencies on Spellerberg land. Parking at Spellerberg and surrounding area is already a huge problem considering the presence of VA Hospital, Children's Care Hospital and School, Bethany Nursing Home and strip mall on 3 sides.
• The Spellerberg neighborhood does not have the infra-structure to handle heavier traffic. There are already traffic and parking problems.

**Frank Olson / East**

• Option #1 plus maintain current status of Frank Olson!
• Nice work! Will be sad to lose Frank Olson. Like plan #1.
- You are forgetting a large underserved group of folks east of 6th Street to Sycamore and beyond. You show a heavy population in that area. Why take out an existing pool at Frank Olson and replace it with a spray ground? Don't take out an existing pools.
- We do need an outdoor 50m pool - Frank Olson.

VA
- This would negatively impact the VA and veteran's access to health care. I believe it would be prudent to revisit both the Kuehn and Sherman Park sites.
- Get the VA out in the public eye saying they want the indoor pool as a neighbor!
- Veteran, Chief of Surgery - VA Hospital. I am a supporter of Option #1. Young veterans with families have expressed interest in having an indoor aquatic facility for their kids while they are at the VA.

Impact of Proposed Plan
- Have some concern about our pool operations after an indoor facility is built - take away certification, lessons, swim team use. Hope there could be offsetting growth…
- City will never be able to afford this project. How much will our taxes go up? Investigate other areas of land that aren't parks.
- Stop competing with private Wild Water West business who cannot get the money as you can from the city tax payers.

General Questions
- Numbers did not include swim team usage. How many more would be added to your totals?
- Are the 200 parking spaces planned for daily usage or for the swim meets with 500 - 1000 people?
- With the fire codes, what would be maximum capacity at the large indoor (50m) during large meets of an average of 500+ in attendance?
- What would be the tax revenue of a large regional meet? NCAA, Zones, Regionals?

General Comment
- Being a frequent outdoor pool visitor, would it be possible to have a 50m outdoor pools as part of one of the outdoor FAC? This would both increase capacity and allow for outdoor swim meets!
- It should be considered for pools to be with the high schools. It would cover a larger area for use for most of the population. Have three medium sized pools for the best use. It will have more cross over for the citizens and combined parking. All uses for more people in SF and the surrounding area.
- Do not tear up any existing park. People will be willing to travel for what they want or need.
- Traffic on Western Avenue will be heavier after the event center is completed. Also, the expense city will incur when they widen Western Avenue as our mayor stated - it would be at a Highway 12 meeting some time back.
Demographic Characteristics

The consultant updated and incorporated the 2010 Census information into area demographics to analyze projections for growth/decline of population, age groups, and income levels. Three-mile to twenty-five-mile service areas were analyzed based around the city center.

Population

The following chart presents a summary of market area population with distance rings surrounding the city center. The population base for the City of Sioux Falls is projected to increase from 158,500 in 2012 to 167,300 by 2017.

<table>
<thead>
<tr>
<th>Distance from Proposed Site</th>
<th>2000 (000's)</th>
<th>Percent</th>
<th>2012 (000's)</th>
<th>Percent</th>
<th>2017 (000's)</th>
<th>Percent</th>
<th>2000-2012 (000's)</th>
<th>Percent</th>
<th>2012-2017 (000's)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 3 Miles</td>
<td>72.7</td>
<td>40.1%</td>
<td>73.1</td>
<td>31.7%</td>
<td>72.5</td>
<td>29.6%</td>
<td>0.0</td>
<td>0.0%</td>
<td>-0.1</td>
<td>-0.2%</td>
</tr>
<tr>
<td>3 to 5 Miles</td>
<td>50.2</td>
<td>27.7%</td>
<td>68.0</td>
<td>29.5%</td>
<td>74.2</td>
<td>30.3%</td>
<td>1.5</td>
<td>2.6%</td>
<td>1.2</td>
<td>1.7%</td>
</tr>
<tr>
<td>5 to 10 Miles</td>
<td>22.8</td>
<td>12.6%</td>
<td>50.2</td>
<td>21.7%</td>
<td>57.7</td>
<td>23.5%</td>
<td>2.3</td>
<td>6.8%</td>
<td>1.5</td>
<td>2.8%</td>
</tr>
<tr>
<td>Subtotal</td>
<td>145.7</td>
<td>80.3%</td>
<td>191.3</td>
<td>82.9%</td>
<td>204.4</td>
<td>83.4%</td>
<td>3.8</td>
<td>2.3%</td>
<td>2.6</td>
<td>1.3%</td>
</tr>
<tr>
<td>10 to 15 Miles</td>
<td>9.2</td>
<td>5.1%</td>
<td>11.0</td>
<td>4.8%</td>
<td>11.6</td>
<td>4.7%</td>
<td>0.2</td>
<td>1.5%</td>
<td>0.1</td>
<td>0.9%</td>
</tr>
<tr>
<td>15 to 25 Miles</td>
<td>26.4</td>
<td>14.6%</td>
<td>28.5</td>
<td>12.4%</td>
<td>29.2</td>
<td>11.9%</td>
<td>0.2</td>
<td>0.6%</td>
<td>0.1</td>
<td>0.5%</td>
</tr>
<tr>
<td>Subtotal</td>
<td>35.6</td>
<td>19.7%</td>
<td>39.6</td>
<td>17.1%</td>
<td>40.8</td>
<td>16.6%</td>
<td>0.3</td>
<td>0.9%</td>
<td>0.2</td>
<td>0.6%</td>
</tr>
<tr>
<td>Total (0-25 Miles)</td>
<td>181.3</td>
<td>100.0%</td>
<td>230.9</td>
<td>100.0%</td>
<td>245.1</td>
<td>100.0%</td>
<td>4.1</td>
<td>2.0%</td>
<td>2.9</td>
<td>1.2%</td>
</tr>
<tr>
<td>Sioux Falls</td>
<td>125.9</td>
<td>100.0%</td>
<td>158.5</td>
<td>100.0%</td>
<td>167.3</td>
<td>100.0%</td>
<td>2.7</td>
<td>1.9%</td>
<td>1.8</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

Source: DemographicsNow

Map of Population Density

The following exhibit highlights the population density by census block. Denser populated areas are colored orange, with less dense areas in yellow.
Age Distribution

The following table provides the number of residents and the percentage of total population for each age group compared to the U.S. column, which identifies the national average. The 0-14 age group is 27.1% of the City of Sioux Falls’ population compared to the national average of 26.5%. The median age for the city is younger than the national average (34 compared to 37 respectively).

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>0-3 Miles</th>
<th>3-5 Miles</th>
<th>5-10 Miles</th>
<th>10-15 Miles</th>
<th>15-25 Miles</th>
<th>Sioux Falls</th>
<th>U.S. Age Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 0-4</td>
<td>5,322</td>
<td>7.3%</td>
<td>4,987</td>
<td>7.3%</td>
<td>5,150</td>
<td>10.3%</td>
<td>739</td>
</tr>
<tr>
<td>Age 5-9</td>
<td>4,534</td>
<td>6.2%</td>
<td>4,780</td>
<td>7.0%</td>
<td>4,608</td>
<td>9.2%</td>
<td>884</td>
</tr>
<tr>
<td>Age 10-14</td>
<td>4,097</td>
<td>5.6%</td>
<td>4,536</td>
<td>6.7%</td>
<td>3,801</td>
<td>7.6%</td>
<td>906</td>
</tr>
<tr>
<td>Age 15-19</td>
<td>4,491</td>
<td>6.1%</td>
<td>4,408</td>
<td>6.5%</td>
<td>3,131</td>
<td>6.2%</td>
<td>848</td>
</tr>
<tr>
<td>Subtotal</td>
<td>18,444</td>
<td>25.2%</td>
<td>18,711</td>
<td>27.5%</td>
<td>16,690</td>
<td>33.3%</td>
<td>3,377</td>
</tr>
<tr>
<td>Age 20-24</td>
<td>6,434</td>
<td>8.8%</td>
<td>4,569</td>
<td>6.7%</td>
<td>2,396</td>
<td>4.8%</td>
<td>489</td>
</tr>
<tr>
<td>Age 25-29</td>
<td>7,015</td>
<td>9.6%</td>
<td>5,235</td>
<td>7.7%</td>
<td>4,293</td>
<td>8.6%</td>
<td>521</td>
</tr>
<tr>
<td>Age 30-34</td>
<td>5,841</td>
<td>8.0%</td>
<td>4,606</td>
<td>6.8%</td>
<td>4,880</td>
<td>9.7%</td>
<td>670</td>
</tr>
<tr>
<td>Age 35-39</td>
<td>4,425</td>
<td>6.1%</td>
<td>4,203</td>
<td>6.2%</td>
<td>4,105</td>
<td>8.2%</td>
<td>697</td>
</tr>
<tr>
<td>Age 40-44</td>
<td>4,348</td>
<td>5.9%</td>
<td>4,314</td>
<td>6.3%</td>
<td>3,639</td>
<td>7.3%</td>
<td>827</td>
</tr>
<tr>
<td>Age 45-49</td>
<td>4,892</td>
<td>6.7%</td>
<td>4,734</td>
<td>7.0%</td>
<td>3,408</td>
<td>6.8%</td>
<td>948</td>
</tr>
<tr>
<td>Age 50-54</td>
<td>5,011</td>
<td>6.9%</td>
<td>4,881</td>
<td>7.2%</td>
<td>3,031</td>
<td>6.0%</td>
<td>927</td>
</tr>
<tr>
<td>Age 55-59</td>
<td>4,409</td>
<td>6.0%</td>
<td>4,563</td>
<td>6.7%</td>
<td>2,519</td>
<td>5.0%</td>
<td>828</td>
</tr>
<tr>
<td>Age 60-64</td>
<td>3,649</td>
<td>5.0%</td>
<td>3,881</td>
<td>5.7%</td>
<td>1,966</td>
<td>3.9%</td>
<td>633</td>
</tr>
<tr>
<td>Age 65-69</td>
<td>2,449</td>
<td>3.3%</td>
<td>2,543</td>
<td>3.7%</td>
<td>1,259</td>
<td>2.5%</td>
<td>406</td>
</tr>
<tr>
<td>Age 70-74</td>
<td>1,794</td>
<td>2.5%</td>
<td>1,746</td>
<td>2.6%</td>
<td>763</td>
<td>1.5%</td>
<td>266</td>
</tr>
<tr>
<td>Age 75-79</td>
<td>1,574</td>
<td>2.2%</td>
<td>1,446</td>
<td>2.1%</td>
<td>541</td>
<td>1.1%</td>
<td>180</td>
</tr>
<tr>
<td>Age 80-84</td>
<td>1,348</td>
<td>1.8%</td>
<td>1,220</td>
<td>1.8%</td>
<td>370</td>
<td>0.7%</td>
<td>144</td>
</tr>
<tr>
<td>Age 85+</td>
<td>1,488</td>
<td>2.0%</td>
<td>1,348</td>
<td>2.0%</td>
<td>300</td>
<td>0.6%</td>
<td>132</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>73,121</td>
<td>100.0%</td>
<td>68,000</td>
<td>100.0%</td>
<td>50,160</td>
<td>100.0%</td>
<td>11,045</td>
</tr>
</tbody>
</table>

Median Age: 34.0

Source: DemographicsNow

Map of Households with People Under 18 Years Old
Income

The U.S. national income average is set at 1.00 in the following chart. Index refers to the percentage higher or lower than the national average. Per capita income for the City of Sioux Falls is 2% lower than the national average, and median household income is right at the national average. Although, a lower cost of living gives residents some discretionary money to spend on recreation.

<table>
<thead>
<tr>
<th>MARKET AREA INCOME</th>
<th>Per Capita Incomes</th>
<th>Median Household Incomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dollars</td>
<td>Index</td>
</tr>
<tr>
<td>3 Miles</td>
<td>$23,009</td>
<td>0.80</td>
</tr>
<tr>
<td>5 Miles</td>
<td>$27,649</td>
<td>0.96</td>
</tr>
<tr>
<td>10 Miles</td>
<td>$28,508</td>
<td>0.99</td>
</tr>
<tr>
<td>15 Miles</td>
<td>$28,475</td>
<td>0.99</td>
</tr>
<tr>
<td>25 Miles</td>
<td>$28,083</td>
<td>0.97</td>
</tr>
<tr>
<td>Sioux Falls</td>
<td>$28,385</td>
<td>0.98</td>
</tr>
<tr>
<td>TOTAL U.S.</td>
<td>$28,888</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Source: DemographicsNow

Weather

Given the sensitivity of aquatics to weather conditions, it is appropriate to include an assessment of local weather patterns in the market analysis. The weather is seasonal in this region with cool summers, which would constitute pool heaters for outdoor pools; however, indoor pools would provide year-round swimming.

<table>
<thead>
<tr>
<th>CLIMATOLOGICAL DATA</th>
<th>Sioux Falls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Month</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>15</td>
</tr>
<tr>
<td>February</td>
<td>20</td>
</tr>
<tr>
<td>March</td>
<td>32</td>
</tr>
<tr>
<td>April</td>
<td>47</td>
</tr>
<tr>
<td>May</td>
<td>59</td>
</tr>
<tr>
<td>June</td>
<td>69</td>
</tr>
<tr>
<td>July</td>
<td>74</td>
</tr>
<tr>
<td>August</td>
<td>72</td>
</tr>
<tr>
<td>September</td>
<td>62</td>
</tr>
<tr>
<td>October</td>
<td>50</td>
</tr>
<tr>
<td>November</td>
<td>33</td>
</tr>
<tr>
<td>December</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Weatherbase
Area Provider Analysis

The following is a sample of aquatic facilities that meet criteria of the scope of the project within a 25-mile radius. Most of these facilities offer lap swimming and recreation use. Many offer regular programming such as swim lessons, competitive swim teams, and aqua aerobics. This information is for research only and current as of 2013.

Local Facilities

1. **YMCA**
   230 S. Minnesota Ave.
   Sioux Falls, SD
   605-336-3190

   Indoor 25-yard pool

   Programs include Masters swim team, youth swim team, swim lessons, water exercise, Red Cross training, recreation swimming, and swim and gym classes.

   **Fees**
   Individual $52/month
   Family $73/month

2. **YWCA**
   300 W. 11th Street
   Sioux Falls, SD
   605-336-3660

   Indoor 25-yard pool

   Programs include Masters swim team and youth swim team.

   **Fees**
   $7 per visit
3. **Avera McKennan Center**  
3400 S. Southeastern Ave.  
Sioux Falls, SD  
605-322-5300

Indoor 25-yard pool

Programs include water exercise classes and swim lessons.

**Fees**  
No fees provided

4. **Buccaneer Bay Waterpark**  
1301 Russell Street  
Sioux Falls, SD  
605-336-1020

Indoor waterpark within Ramada Inn features:
- Waterslide
- 35' Pirate ship
- Lap pool
- 2 hot tubs

**Fees**  
Hotel use only

5. **Wild Water West Waterpark**  
26767 466th Ave.  
Sioux Falls, SD 57106  
605-361-9313

Outdoor seasonal waterpark features:
- Wave pool
- Tot pool
- Lazy river
- Waterslides
- Activity pool
- Participatory play feature

**Fees**  
48” & up $25  
48” & under $15  
Age 1 & under FREE
Benchmark Facilities

1. Grand Forks, ND
The City of Grand Forks offers two outdoor municipal pools and two outdoor spray parks.

Elks Pool
926 13th Ave South

Elks Pool features a large deck area with picnic shelters, two waterslides, water basketball, concessions and changing areas.

Riverside Pool
100 1st Avenue North

Riverside Pool and Park features an activities building, restrooms, shelters, playground, basketball, tennis courts, and a connection to the city bike paths.

Two Spray Parks
University Park, 320 North 25th Street
Elks Spray Park, 926 13th Ave South (next door to Elks Pool)
2. Fargo, ND
The City of Fargo offers five outdoor municipal pools and one outdoor splash pad.

Davies Recreational Pool
7150 25th St S
Features at this outdoor pool include two large waterslides, zero-depth swim area, large water playground with several small slides and 300-gallon dumping bucket, climbing wall over a section of the pool, and concessions.

Island Park Pool
616 1st Avenue S
This outdoor aquatic facility has 3 pools: 50-meter eight lane pool with water depth ranging from 3 1/2 to 5 ft.; large wading pool; diving well with two 3-meter diving boards and two 1-meter diving boards, and concessions.

Madison Pool & Splash Pad
1040 29th Street N
This small neighborhood outdoor facility features zero-depth splash pad, small wading pool, and a small swimming pool with water depth ranging from 2 1/2 to 4 1/2 ft.

Northside Recreation Pool
801 17th Avenue N
Amenities include an outdoor recreation pool with a large waterslide, zero-depth area with a playground and a small waterslide, and concessions.

Southwest Recreation Pool
1840 15th Avenue S
Amenities at this outdoor pool include a large waterslide, a zero-depth swimming area with a two-tiered playground in the water and a waterslide, water drop mushroom feature, and concessions.
3. **Rapid City, SD**
The City of Rapid City offers four municipal pools, one of which is an indoor swim center.

**Horace Mann Pool**  
818 Anamosa  
Features include an outdoor flat-water recreation pool.

**Jimmy Hilton Municipal Pool**  
920 Sheridan Lake Road  
Amenities include an outdoor leisure pool with waterslides, tipping buckets, mushroom, and climb-on feature.

**Parkview Pool**  
4221 Parkview Drive  
Features include an outdoor leisure pool with waterslides.

**Roosevelt Indoor Swim Center**  
125 Waterloo Street  
Amenities include an 8-lane lap pool, large warm-water spa pool, diving boards, water basketball area, zero-depth leisure pool, and "froggie" the floating frog. The leisure pool also has a play structure with two slides, a current channel, and a vortex pool.
4. Cedar Rapids, IA
The City of Cedar Rapids offers six municipal pools, one of which is an indoor pool.

**Bender Pool**
Features include an indoor pool.

**Bever Pool**
The outdoor Bever Pool opened in 2002 and features a zero-depth entry, sloping entry stairs, hydraulic chair lift, waterslide, six 25-yard lap lanes, 1-meter diving board, water play features, shaded concession area, shade umbrellas, family changing room, and bathhouse with lockers.

**Cherry Hill Aquatic Center**
The outdoor Cherry Hill Aquatic Center opened in 2004 and features a zero-depth entry, sloping entry stairs, waterslide, speed slide, drop slide, eight 25-yard lap lanes, six 50-meter lap lanes, 1-meter diving board, 3-meter diving board, large water play feature, sand play area, shaded concession area, shade umbrellas, and a bathhouse with lockers.

**Ellis Pool**
The outdoor Ellis Pool opened in 2010 and features a 2 ft. shallow end, sloped entry ramp, separate baby pool, hydraulic chair lift, waterslide, six 25-yard lap lanes, 1-meter diving board, 3-meter diving board, vending machines, shade umbrellas, and a bathhouse with lockers.

**Jones Pool**
The outdoor Jones Pool opened in 2005 and features zero-depth entry, sloping entry stairs, waterslide, four 25-yard lap lanes, water play features, vending machines, shade umbrellas, and a bathhouse with lockers.

**Noelridge Aquatic Center**
The outdoor Noelridge Aquatic Center opened in 2003 and features zero-depth entry, sloping entry stairs, hydraulic chair lift, waterslide, speed slide, drop slide, eight 25-yard lap lanes, 1-meter diving board, a large water play feature, sand play area, shaded concession area, shade umbrellas, and a bathhouse with lockers.
5. Omaha, NE  
The City of Omaha offers 18 municipal pools, three of which are indoor facilities.

Outdoor Pools  
Gallagher Leisure  
Miller Water Park  
Camelot Traditional  
Elkhorn Traditional  
Lee Valley Traditional  
Roanoke Traditional  
Elmwood Leisure  
Hanscom Leisure  
Hitchcock Traditional  
Karen Traditional  
Spring Lake Traditional  
Cryer Traditional  
Deer Ridge Leisure  
Oak Heights Leisure  
Zorinsky Aquatic Center

Indoor Pools  
Montclair  
Mockingbird  
Common Ground

Benchmark Pools by Population  
The following offers a snapshot of the benchmark cities’ income, median age, population, number of municipal pools, how many residents are served per pool, and their admission fees.

<table>
<thead>
<tr>
<th>City</th>
<th>Income</th>
<th>Median Age</th>
<th>Population</th>
<th>Indoor Pools</th>
<th>Outdoor Pools</th>
<th>Total Pools</th>
<th>Residents per Pool</th>
<th>Child Fees</th>
<th>Adult Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Forks, ND</td>
<td>$62,598</td>
<td>28</td>
<td>52,292</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>26,146 $</td>
<td>2.50</td>
<td>3.00</td>
</tr>
<tr>
<td>Fargo, ND</td>
<td>$71,221</td>
<td>30</td>
<td>108,109</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>21,622 $</td>
<td>2.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Rapid City, SD</td>
<td>$62,517</td>
<td>36</td>
<td>69,966</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>17,492 $</td>
<td>4.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Cedar Rapids, IA</td>
<td>$69,388</td>
<td>36</td>
<td>129,171</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>21,529 $</td>
<td>3.50</td>
<td>4.25</td>
</tr>
<tr>
<td>Omaha, NE</td>
<td>$66,264</td>
<td>34</td>
<td>129,171</td>
<td>3</td>
<td>15</td>
<td>18</td>
<td>23,156 $</td>
<td>2.50</td>
<td>5.00</td>
</tr>
<tr>
<td>Sioux Falls, SD</td>
<td>$53,574</td>
<td>34</td>
<td>158,500</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>22,643 $</td>
<td>2.00</td>
<td>3.00</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>$64,260</td>
<td>33</td>
<td>155,808</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>22,098 $</td>
<td>2.75</td>
<td>3.88</td>
</tr>
</tbody>
</table>

Source: Counsilman-Hunsaker
Aquatic Master Plan

Aquatic Center Toolbox

For the purpose of this study, an “Aquatic Toolbox” that included a variety of types and sizes of pools was developed. The toolbox ranges from indoor to outdoor, small to large, and recreational to competitive. For each option a total opinion of cost, estimated expenses, and potential revenue was developed to understand the impact each of these toolbox options would have on the overall aquatic system. The toolbox included the following options:

- Option 1 (Sprayground): 1,250 sq. ft. sprayground with interactive features.
- Option 2 (Small FAC): 8,500 sq. ft. multipurpose outdoor leisure pool with play feature, zero-depth entry, current channel, waterslides, crossing activity, and water vortex.
- Option 3 (Medium FAC): 7,800 sq. ft. outdoor leisure pool with lazy river, waterslides, separate 10,900 sq. ft. 50-meter pool with diving boards, drop slide, and climbing wall.
- Option 4 (Comm. Indoor): Indoor 8 lane 25-yard lap pool with springboard diving and a separate 5,270 sq. ft. leisure pool with current channel and a warm water spa.
- Option 5 (Large Indoor): Indoor 50-meter by 25-yard competition pool with springboard diving and a separate 3,750 sq. ft. indoor leisure pool with current channel, and waterslide.
- Option 6 (50 Meter): Indoor 50-meter by 25-yard competition venue facility with springboard diving and 750 spectator seats.

*Note: Family Aquatic Center (FAC)*
Option 1: Sprayground
1,250 sq. ft. sprayground with interactive features.
## OPINION OF PROJECT COST: SPRAYGROUND

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Amount</th>
<th>Opinion of Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td></td>
<td>Not Included</td>
<td></td>
</tr>
<tr>
<td>Mechanical</td>
<td>350</td>
<td>$45,377</td>
<td></td>
</tr>
<tr>
<td>Pool Mechanical</td>
<td>Sq. Ft.</td>
<td>292</td>
<td>$45,377</td>
</tr>
<tr>
<td>Efficiency (20%)</td>
<td>Sq. Ft.</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Aquatics</td>
<td>1,250</td>
<td>$292,969</td>
<td></td>
</tr>
<tr>
<td>Splash Pad</td>
<td>Sq. Ft.</td>
<td>1,250</td>
<td>$292,969</td>
</tr>
<tr>
<td>UV Sanitizer</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Filtration Vault</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Filtration Equipment</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Interactive Play Features</td>
<td>Allowance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>3,750</td>
<td>$41,044</td>
<td></td>
</tr>
<tr>
<td>Outdoor Deck</td>
<td>Sq. Ft.</td>
<td>2,500</td>
<td>$41,044</td>
</tr>
<tr>
<td>Overhead Lighting</td>
<td>Sq. Ft.</td>
<td>3,750</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>Allowance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Shade Structures</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Total Building Construction Costs**  
$379,389

**Site Construction Costs (parking lot, landscaping, utilities, walks)**  
$102,510

**Land Acquisition**  
Not Included

**Subtotal**  
$481,899

**Inflation (2 year)**  
6%  
$28,914

**Contingency**  
10%  
$51,081

**Indirect Costs**  
12%  
$67,427

**Opinion of Probable Cost**  
$629,322

**Say**  
$630,000

Source: Counsilman-Hunsaker
Option 2: Small Family Aquatic Center
8,500 sq. ft. multipurpose outdoor leisure pool with play feature, zero-depth entry, current channel, waterslides, crossing activity, and water vortex.
## OPINION OF PROJECT COST: SMALL FAC

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Amount</th>
<th>Opinion of Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathhouse</td>
<td>(Not Included)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lobby</td>
<td>Sq. Ft.</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Managers Office</td>
<td>Sq. Ft.</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Guard Room / First Aid</td>
<td>Sq. Ft.</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Pool Mechanical</td>
<td>Sq. Ft.</td>
<td>1,650</td>
<td></td>
</tr>
<tr>
<td>Building Mechanical</td>
<td>Sq. Ft.</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>Sq. Ft.</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Locker Rooms</td>
<td>Sq. Ft.</td>
<td>1,800</td>
<td></td>
</tr>
<tr>
<td>Family Changing Room</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Snack Bar</td>
<td>Sq. Ft.</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td>Sq. Ft.</td>
<td>769</td>
<td></td>
</tr>
<tr>
<td>Aquatics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leisure Pool</td>
<td>Sq. Ft.</td>
<td>8,500</td>
<td>$1,674,288</td>
</tr>
<tr>
<td>Participatory Play Feature</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Current Channel</td>
<td>Add Cost</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Vortex</td>
<td>Add Cost</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Waterslide</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Tot Slide</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Crossing Activity</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoor Deck</td>
<td>Sq. Ft.</td>
<td>13,600</td>
<td>$379,523</td>
</tr>
<tr>
<td>Fence</td>
<td>Linear Ft.</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Overhead Lighting</td>
<td>Sq. Ft.</td>
<td>22,100</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>Allowance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Shade Structures</td>
<td>Quantity</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Total Building Construction Costs</td>
<td></td>
<td></td>
<td>3,041,698</td>
</tr>
<tr>
<td>Site Construction Costs (parking lot, landscaping, utilities, walks)</td>
<td></td>
<td>$503,888</td>
<td></td>
</tr>
<tr>
<td>Land Acquisition</td>
<td>Not Included</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td></td>
<td>$3,545,585</td>
</tr>
<tr>
<td>Inflation (2 year)</td>
<td>6.0%</td>
<td></td>
<td>$212,735</td>
</tr>
<tr>
<td>Contingency</td>
<td>10.0%</td>
<td></td>
<td>$375,832</td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>12.0%</td>
<td></td>
<td>$496,098</td>
</tr>
<tr>
<td>Opinion of Project Costs</td>
<td></td>
<td></td>
<td>$4,630,250</td>
</tr>
<tr>
<td>Say</td>
<td></td>
<td></td>
<td>$4,640,000</td>
</tr>
</tbody>
</table>

Source: Counsilman-Hunsaker
Option 3: Medium Family Aquatic Center
7,800 sq. ft. outdoor leisure pool with lazy river, waterslides, separate 10,900 sq. ft. 50-meter pool with diving boards, drop slide, and climbing wall.
<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Amount</th>
<th>Opinion of Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td></td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Bathhouse</td>
<td>8,280</td>
<td>$1,370,085</td>
<td></td>
</tr>
<tr>
<td>Lobby</td>
<td>Sq. Ft.</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Managers Office</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Guard Room / First Aid</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Pool Mechanical</td>
<td>Sq. Ft.</td>
<td>2,100</td>
<td></td>
</tr>
<tr>
<td>Building Mechanical</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>Sq. Ft.</td>
<td>1,100</td>
<td></td>
</tr>
<tr>
<td>Locker Rooms</td>
<td>Sq. Ft.</td>
<td>2,300</td>
<td></td>
</tr>
<tr>
<td>Family Changing Room (2)</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Snack Bar</td>
<td>Sq. Ft.</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td>Sq. Ft.</td>
<td>1,380</td>
<td></td>
</tr>
<tr>
<td>Aquatics</td>
<td>18,700</td>
<td>$3,301,480</td>
<td></td>
</tr>
<tr>
<td>Leisure Pool</td>
<td>Sq. Ft.</td>
<td>7,800</td>
<td></td>
</tr>
<tr>
<td>Waterslide (A w/ tower)</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Waterslide (B)</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Lazy River</td>
<td>Add. Cost</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>50 Meter Pool</td>
<td>Sq. Ft.</td>
<td>10,900</td>
<td></td>
</tr>
<tr>
<td>Diving Board</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Climbing Wall</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Drop Slide</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td></td>
<td>$652,370</td>
<td></td>
</tr>
<tr>
<td>Outdoor Deck</td>
<td>Sq. Ft.</td>
<td>22,440</td>
<td></td>
</tr>
<tr>
<td>Pavilion</td>
<td>Allowance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fence</td>
<td>Linear Ft.</td>
<td>696</td>
<td></td>
</tr>
<tr>
<td>Overhead Lighting</td>
<td>Sq. Ft.</td>
<td>41,140</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>Allowance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Shade Structures</td>
<td>Quantity</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>Total Building Construction Costs</strong></td>
<td></td>
<td><strong>5,323,935</strong></td>
<td></td>
</tr>
<tr>
<td>Site Construction Costs (parking, landscaping, utilities, walks)</td>
<td></td>
<td>$1,235,500</td>
<td></td>
</tr>
<tr>
<td>Land Acquisition</td>
<td></td>
<td><strong>Not Included</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>$6,559,435</strong></td>
<td></td>
</tr>
<tr>
<td>Inflation (2 year)</td>
<td>6%</td>
<td>$393,566</td>
<td></td>
</tr>
<tr>
<td>Contingency</td>
<td>10%</td>
<td>$695,300</td>
<td></td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>10%</td>
<td>$764,830</td>
<td></td>
</tr>
<tr>
<td><strong>Opinion of Project Costs</strong></td>
<td></td>
<td><strong>$8,413,132</strong></td>
<td>$8,414,000</td>
</tr>
</tbody>
</table>

Source: Counsilman-Hunsaker
Option 4: Comm. Indoor
Indoor 8 lane 25-yard lap pool with springboard diving and a separate 5,270 sq. ft. leisure pool with current channel and a warm water spa.
**OPINION OF PROJECT COST: COMMUNITY INDOOR**

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Amount</th>
<th>Opinion of Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Lobby</td>
<td>Sq. Ft.</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Lobby Aesthetics</td>
<td>Sq. Ft.</td>
<td>750</td>
<td></td>
</tr>
<tr>
<td>Front Desk</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Office Space</td>
<td></td>
<td>820</td>
<td>$114,741</td>
</tr>
<tr>
<td>Facility Manager</td>
<td>Sq. Ft.</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Aquatic Coordinator</td>
<td>Sq. Ft.</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Lifeguard/First Aid</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Coaches Workspace</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Office Storage</td>
<td>Sq. Ft.</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Natatorium</td>
<td></td>
<td>25,500</td>
<td>$6,447,021</td>
</tr>
<tr>
<td>Natatorium Space</td>
<td>Sq. Ft.</td>
<td>22,500</td>
<td></td>
</tr>
<tr>
<td>8-lane 25 Yard Pool</td>
<td>Sq. Ft.</td>
<td>4,950</td>
<td></td>
</tr>
<tr>
<td>Springboard Diving</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Leisure Pool</td>
<td>Sq. Ft.</td>
<td>5,270</td>
<td></td>
</tr>
<tr>
<td>Spray Amenities</td>
<td>Allowance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Current Channel</td>
<td>Add Cost</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Water Slide</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Warm Water Spa</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Deck Seating (125 seats)</td>
<td>Sq. Ft.</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Pool Mechanical Room</td>
<td>Sq. Ft.</td>
<td>2,500</td>
<td></td>
</tr>
<tr>
<td>Shared Areas</td>
<td></td>
<td>4,700</td>
<td>$923,258</td>
</tr>
<tr>
<td>Multi-Purpose Room</td>
<td>Sq. Ft.</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Kitchen</td>
<td>Sq. Ft.</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Locker Rooms</td>
<td>Sq. Ft.</td>
<td>2,500</td>
<td></td>
</tr>
<tr>
<td>Family Changing Rooms</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Building Support</td>
<td></td>
<td>2,250</td>
<td>$398,162</td>
</tr>
<tr>
<td>Building Mechanical</td>
<td>Sq. Ft.</td>
<td>1,600</td>
<td></td>
</tr>
<tr>
<td>Electrical</td>
<td>Sq. Ft.</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Janitor</td>
<td>Sq. Ft.</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Elevator</td>
<td>Sq. Ft.</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Elevator Machine</td>
<td>Sq. Ft.</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td></td>
<td>7,044</td>
<td>$1,056,600</td>
</tr>
<tr>
<td>Circulation and Walls (20%)</td>
<td>Sq. Ft.</td>
<td>7,044</td>
<td></td>
</tr>
<tr>
<td><strong>Total Building Construction Costs</strong></td>
<td></td>
<td>42,264</td>
<td>9,261,641</td>
</tr>
<tr>
<td>Site Construction Costs (landscaping, utilities, walks)</td>
<td></td>
<td></td>
<td>$1,056,600</td>
</tr>
<tr>
<td>Furniture, Fixtures, Equipment</td>
<td></td>
<td></td>
<td>$254,000</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>$10,572,241</td>
<td></td>
</tr>
<tr>
<td>Inflation (2 year)</td>
<td>6.0%</td>
<td>$634,334</td>
<td></td>
</tr>
<tr>
<td>Contingency</td>
<td>10.0%</td>
<td>$1,120,658</td>
<td></td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>9.0%</td>
<td>$1,109,451</td>
<td></td>
</tr>
<tr>
<td><strong>Total Estimated Project Costs:</strong></td>
<td></td>
<td>$13,436,684</td>
<td></td>
</tr>
<tr>
<td>Say</td>
<td></td>
<td>$13,437,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Counsilman-Hunsaker
Option 5: Large Indoor
Indoor 50-meter by 25-yard competition pool with springboard diving and a separate 3,750 sq. ft. indoor leisure pool with current channel, and waterslide.
## OPINION OF PROJECT COST: LARGE INDOOR

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Amount</th>
<th>Opinion of Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance</td>
<td></td>
<td></td>
<td>$321,860</td>
</tr>
<tr>
<td>Basic Lobby</td>
<td>Sq. Ft.</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Lobby Aesthetics</td>
<td>Sq. Ft.</td>
<td>750</td>
<td></td>
</tr>
<tr>
<td>Front Desk</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Office Space</td>
<td></td>
<td>820</td>
<td>$114,741</td>
</tr>
<tr>
<td>Facility Manager</td>
<td>Sq. Ft.</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Aquatic Coordinator</td>
<td>Sq. Ft.</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Lifeguard/First Aid</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Coaches Workspace</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Office Storage</td>
<td>Sq. Ft.</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Natatorium</td>
<td></td>
<td>36,000</td>
<td>$9,475,269</td>
</tr>
<tr>
<td>50 Meter Pool (168' X 75')</td>
<td>Sq. Ft.</td>
<td>12,600</td>
<td></td>
</tr>
<tr>
<td>Bulkhead</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Springboard Diving</td>
<td>Quantity</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Competitive Natatorium</td>
<td>Sq. Ft.</td>
<td>22,300</td>
<td></td>
</tr>
<tr>
<td>Balcony Seating (400 seats)</td>
<td>Sq. Ft.</td>
<td>2,400</td>
<td></td>
</tr>
<tr>
<td>Leisure Pool</td>
<td>Sq. Ft.</td>
<td>3,750</td>
<td></td>
</tr>
<tr>
<td>Play Feature</td>
<td>Allowance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Waterslide</td>
<td>Quantity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Current Channel</td>
<td>Add Cost</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Leisure Pool Natatorium</td>
<td>Sq. Ft.</td>
<td>8,800</td>
<td></td>
</tr>
<tr>
<td>Pool Mechanical Room</td>
<td>Sq. Ft.</td>
<td>2,500</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Unit</td>
<td>Amount</td>
<td>Opinion of Cost</td>
</tr>
<tr>
<td>Shared Areas</td>
<td></td>
<td>5,750</td>
<td>$1,117,628</td>
</tr>
<tr>
<td>Multi-Purpose Room</td>
<td>Sq. Ft.</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Kitchen</td>
<td>Sq. Ft.</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Locker Rooms</td>
<td>Sq. Ft.</td>
<td>3,000</td>
<td></td>
</tr>
<tr>
<td>Family Changing Rooms</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Building Support</td>
<td></td>
<td>2,250</td>
<td>$398,162</td>
</tr>
<tr>
<td>Building Mechanical</td>
<td>Sq. Ft.</td>
<td>1,600</td>
<td></td>
</tr>
<tr>
<td>Electrical</td>
<td>Sq. Ft.</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Janitor</td>
<td>Sq. Ft.</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Elevator</td>
<td>Sq. Ft.</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Elevator Machine</td>
<td>Sq. Ft.</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td></td>
<td>9,354</td>
<td>$1,403,100</td>
</tr>
<tr>
<td>Circulation and Walls (20%)</td>
<td>Sq. Ft.</td>
<td>9,354</td>
<td></td>
</tr>
<tr>
<td>Total Building Construction Costs</td>
<td></td>
<td>56,124</td>
<td>$12,830,759</td>
</tr>
<tr>
<td>Site Construction Costs (landscaping, utilities, walks)</td>
<td></td>
<td></td>
<td>$1,403,100</td>
</tr>
<tr>
<td>Furniture, Fixtures, Equipment</td>
<td></td>
<td>$337,000</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>$14,570,859</td>
<td></td>
</tr>
<tr>
<td>Inflation (2 year)</td>
<td></td>
<td>6.0%</td>
<td>$874,252</td>
</tr>
<tr>
<td>Contingency</td>
<td></td>
<td>10.0%</td>
<td>$1,544,511</td>
</tr>
<tr>
<td>Indirect Costs</td>
<td></td>
<td>9.0%</td>
<td>$1,529,066</td>
</tr>
<tr>
<td>Total Estimated Project Costs:</td>
<td></td>
<td>$18,518,687</td>
<td></td>
</tr>
<tr>
<td>Say</td>
<td></td>
<td>$18,519,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Counsilman-Hunsaker
Option 6: 50 Meter
Indoor 50-meter by 25-yard competition venue facility with springboard diving and 750 spectator seats.
# OPINION OF PROJECT COST: 50 METER

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Amount</th>
<th>Opinion of Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Lobby</td>
<td>Sq. Ft.</td>
<td>600</td>
<td>$125,400</td>
</tr>
<tr>
<td>Check-in Desk</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Office Space</td>
<td></td>
<td>820</td>
<td>$114,741</td>
</tr>
<tr>
<td>Facility Manager</td>
<td>Sq. Ft.</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Aquatic Coordinator</td>
<td>Sq. Ft.</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Lifeguard/First Aid</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Coaches Workspace</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Office Storage</td>
<td>Sq. Ft.</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Shared Areas</td>
<td></td>
<td>2,050</td>
<td>$341,715</td>
</tr>
<tr>
<td>Multi-Purpose Room</td>
<td>Sq. Ft.</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Catering Area</td>
<td>Sq. Ft.</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Restroom Areas</td>
<td></td>
<td>2,600</td>
<td>$570,570</td>
</tr>
<tr>
<td>General Locker Rooms (M/W)</td>
<td>Sq. Ft.</td>
<td>2,250</td>
<td></td>
</tr>
<tr>
<td>Family Changing Rooms (2)</td>
<td>Sq. Ft.</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Second Floor Restrooms (M/W)</td>
<td>Sq. Ft.</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Competitive Natatorium</td>
<td></td>
<td>29,750</td>
<td>$8,016,565</td>
</tr>
<tr>
<td>50 Meter Pool (205' X 75')</td>
<td>Sq. Ft.</td>
<td>15,400</td>
<td></td>
</tr>
<tr>
<td>Bulkhead</td>
<td>Quantity</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Springboard Diving</td>
<td>Quantity</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Deck Shower Area</td>
<td>Sq. Ft.</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Natatorium Enclosure</td>
<td>Sq. Ft.</td>
<td>21,900</td>
<td></td>
</tr>
<tr>
<td>Spectator Seating (750 seats)</td>
<td>Sq. Ft.</td>
<td>4,500</td>
<td></td>
</tr>
<tr>
<td>Pool Mechanical Room</td>
<td>Sq. Ft.</td>
<td>1,850</td>
<td></td>
</tr>
<tr>
<td>General Pool Storage</td>
<td>Sq. Ft.</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>Building Support</td>
<td></td>
<td>2,530</td>
<td>$431,393</td>
</tr>
<tr>
<td>Building Mechanical</td>
<td>Sq. Ft.</td>
<td>1,850</td>
<td></td>
</tr>
<tr>
<td>Electrical</td>
<td>Sq. Ft.</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>Janitor</td>
<td>Sq. Ft.</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Elevator</td>
<td>Sq. Ft.</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Elevator Machine</td>
<td>Sq. Ft.</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Circulation/Walls</td>
<td></td>
<td>7,700</td>
<td>$1,155,000</td>
</tr>
<tr>
<td>80% efficiency</td>
<td>Sq. Ft.</td>
<td>7,700</td>
<td></td>
</tr>
<tr>
<td><strong>Total Square Footage</strong></td>
<td>Sq. Ft.</td>
<td>46,200</td>
<td>$10,755,384</td>
</tr>
<tr>
<td><strong>Furnishings and Equipment</strong></td>
<td>Allowance</td>
<td>$278,000</td>
<td></td>
</tr>
<tr>
<td><strong>Site Construction Costs</strong></td>
<td>Allowance</td>
<td>$1,155,000</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>$12,188,384</td>
<td></td>
</tr>
<tr>
<td><strong>Inflation (2 years)</strong></td>
<td></td>
<td>6%</td>
<td>$731,303</td>
</tr>
<tr>
<td><strong>Contingency</strong></td>
<td></td>
<td>10%</td>
<td>$1,291,969</td>
</tr>
<tr>
<td><strong>Indirect Costs</strong></td>
<td></td>
<td>9%</td>
<td>$1,279,049</td>
</tr>
<tr>
<td><strong>Total Estimated Project Costs:</strong></td>
<td></td>
<td></td>
<td>$15,490,704</td>
</tr>
<tr>
<td><strong>Say</strong></td>
<td></td>
<td>$15,500,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Counsilman-Hunsaker
Capacity Analysis
Generally, the recreational swimmer prefers shallow water of four feet or less because it allows them to participate in a variety of water-related activities while still touching the pool bottom. Therefore, in estimating capacity for recreational use, a maximum density of 25 square feet per person is assumed. For deep water the maximum density is assumed to be 100 square feet per person. Based upon a length of stay of two to three hours, each of the proposed facility options is estimated to turn over in-house attendance 2-1/2 times per day for the recreational swimmer, and three times a day for the competitive swimmer.

<table>
<thead>
<tr>
<th></th>
<th>Sprayground</th>
<th>SFAC</th>
<th>MFAC</th>
<th>Comm Indoor</th>
<th>Large Indoor</th>
<th>50 Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training (Available 25-Yard Lanes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoor Leisure</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Outdoor Lap</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Outdoor Sprayground</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Indoor Lap</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Indoor Leisure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>3</td>
<td>10</td>
<td>10</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Estimated Training Holding Capacity</td>
<td>0</td>
<td>15</td>
<td>50</td>
<td>50</td>
<td>125</td>
<td>110</td>
</tr>
<tr>
<td>Daily Training Capacity</td>
<td>0</td>
<td>45</td>
<td>150</td>
<td>150</td>
<td>375</td>
<td>330</td>
</tr>
<tr>
<td>Recreation (Surface Area Sq. Ft.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoor Leisure</td>
<td>0</td>
<td>8,500</td>
<td>7,800</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Outdoor Lap</td>
<td>0</td>
<td>0</td>
<td>10,900</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Outdoor Sprayground</td>
<td>1,250</td>
<td>0</td>
<td>0</td>
<td>4,950</td>
<td>12,600</td>
<td>15,400</td>
</tr>
<tr>
<td>Indoor Lap</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5,270</td>
<td>3,750</td>
<td>0</td>
</tr>
<tr>
<td>Indoor Leisure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4,950</td>
<td>12,600</td>
<td>15,400</td>
</tr>
<tr>
<td>Spa</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>150</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1,250</td>
<td>8,500</td>
<td>18,700</td>
<td>10,370</td>
<td>16,350</td>
<td>15,400</td>
</tr>
<tr>
<td>Total Holding Capacity</td>
<td>50</td>
<td>330</td>
<td>658</td>
<td>340</td>
<td>583</td>
<td>449</td>
</tr>
<tr>
<td>Total Daily Facility Capacity</td>
<td>125</td>
<td>831</td>
<td>1,669</td>
<td>876</td>
<td>1,520</td>
<td>1,177</td>
</tr>
</tbody>
</table>

Parking Analysis
On-site parking should provide for easy drop-off and pickup of facility users. The parking requirement for each facility is outlined below by option. This analysis assumes that, on average, three participants will arrive in the same car. The final design must also provide service vehicle access to the mechanical areas. The required site size includes the recommended parking, the impervious structure required to develop each option, and required green space to maintain a park feel.

<table>
<thead>
<tr>
<th></th>
<th>Sprayground</th>
<th>SFAC</th>
<th>MFAC</th>
<th>Comm Indoor</th>
<th>Large Indoor</th>
<th>50 Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking</td>
<td>20</td>
<td>132</td>
<td>263</td>
<td>136</td>
<td>233</td>
<td>180</td>
</tr>
<tr>
<td>Parking Sq. Ft.</td>
<td>7,000</td>
<td>43,000</td>
<td>86,000</td>
<td>45,000</td>
<td>76,000</td>
<td>59,000</td>
</tr>
<tr>
<td>Impervious Structure</td>
<td>4,100</td>
<td>27,994</td>
<td>49,420</td>
<td>42,264</td>
<td>56,124</td>
<td>46,200</td>
</tr>
<tr>
<td>Total Program Sq. Ft.</td>
<td>11,100</td>
<td>70,994</td>
<td>135,420</td>
<td>87,264</td>
<td>132,124</td>
<td>105,200</td>
</tr>
<tr>
<td>Total Sq. Ft. with Efficiency</td>
<td>22,201</td>
<td>141,988</td>
<td>270,840</td>
<td>174,528</td>
<td>264,248</td>
<td>210,400</td>
</tr>
<tr>
<td>Site Size Requirements (acres)</td>
<td>0.51</td>
<td>3.26</td>
<td>6.22</td>
<td>4.01</td>
<td>6.07</td>
<td>4.83</td>
</tr>
<tr>
<td>Preferred Site Size (acres)</td>
<td>0.76</td>
<td>4.89</td>
<td>9.33</td>
<td>6.01</td>
<td>9.10</td>
<td>7.25</td>
</tr>
</tbody>
</table>
Traffic Analysis
The following chart looks at the estimated attendance and assumes an average of 3 people per car, over a 101 day period for outdoor pools and 360 for indoor pools, with an eight hour operating day for outdoor pools and a 16 hour operating day for indoor pools to determine the average cars per hour for each of the toolbox options.

<table>
<thead>
<tr>
<th></th>
<th>Sprayground</th>
<th>SFAC</th>
<th>MFAC</th>
<th>Comm Indoor</th>
<th>Large Indoor</th>
<th>50 Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Attendance</td>
<td>14,235</td>
<td>52,666</td>
<td>77,470</td>
<td>67,918</td>
<td>80,104</td>
<td>50,310</td>
</tr>
<tr>
<td>Average Attendance Per Day</td>
<td>141</td>
<td>521</td>
<td>767</td>
<td>189</td>
<td>223</td>
<td>140</td>
</tr>
<tr>
<td>Average Cars Per Day</td>
<td>47</td>
<td>174</td>
<td>256</td>
<td>63</td>
<td>74</td>
<td>47</td>
</tr>
<tr>
<td>Average Cars Per Hour</td>
<td>6</td>
<td>22</td>
<td>32</td>
<td>4</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

Opinion of Revenue
Programming
It is the city’s goal to operate recreation programming as both a public service and a revenue generator. Any program schedule will require flexibility to adapt to specific needs of the community. It is the responsibility of the aquatic supervisor to monitor user group demands and adjust schedules accordingly. Revenue projections are based on marketing programming that would include the following programs: swim meet rental, USA swim team, summer swim lessons, winter swim lessons, lifeguard training, wellness programming, birthday parties, and private rentals. It is assumed that these user groups, because of their high volume of use, will pay a lower fee per person admission. Aquatic programming will need to be scheduled so as not to significantly impact community recreation programming.

The following table assumes that the cost of the program has been deducted from generated fees and shows the “net” program revenue. For example, the revenue projected for swimming lessons is after the instructor cost.

Visits per Program Day: number of participants in a particular activity per day.
Programming Days: number of days each activity will be programmed during the year.
Per Capita Spending: revenue generated per participant per day of activity after related costs are paid, for instance, the $2.50 assumed for each summer swim lesson participant per day is after the instructors are paid.

Opinion of Revenue (Net): the resulting revenue generated by each activity. (Visits per Program Day) multiplied by (Programming Days) multiplied by (Per Capita Spending) = Opinion of Revenue (Net).
<table>
<thead>
<tr>
<th>Visits per Program Day</th>
<th>Sprayground</th>
<th>SFAC</th>
<th>MFAC</th>
<th>Comm Indoor</th>
<th>Large Indoor</th>
<th>50 Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swim Meet Rental</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>USA Swim Team</td>
<td>-</td>
<td>-</td>
<td>50</td>
<td>45</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Summer Swim Lessons</td>
<td>-</td>
<td>15</td>
<td>25</td>
<td>50</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>Winter Swim Lessons</td>
<td>-</td>
<td>-</td>
<td>30</td>
<td>30</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Lifeguard Training</td>
<td>-</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Wellness Programming</td>
<td>-</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Birthday Party</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Private Rental</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programming Days</th>
<th>Sprayground</th>
<th>SFAC</th>
<th>MFAC</th>
<th>Comm Indoor</th>
<th>Large Indoor</th>
<th>50 Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swim Meet Rental</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>20</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>USA Swim Team</td>
<td>-</td>
<td>-</td>
<td>70</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Summer Swim Lessons</td>
<td>-</td>
<td>48</td>
<td>48</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Winter Swim Lessons</td>
<td>-</td>
<td>-</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Lifeguard Training</td>
<td>-</td>
<td>5</td>
<td>5</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Wellness Programming</td>
<td>-</td>
<td>30</td>
<td>30</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Birthday Party</td>
<td>-</td>
<td>70</td>
<td>70</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Private Rental</td>
<td>-</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Per Capita Spending (Net)</th>
<th>Sprayground</th>
<th>SFAC</th>
<th>MFAC</th>
<th>Comm Indoor</th>
<th>Large Indoor</th>
<th>50 Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swim Meet Rental</td>
<td>$0.00</td>
<td>$500.00</td>
<td>$500.00</td>
<td>$800.00</td>
<td>$1,500.00</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>USA Swim Team</td>
<td>$0.00</td>
<td>$2.00</td>
<td>$2.00</td>
<td>$2.00</td>
<td>$2.00</td>
<td>$2.00</td>
</tr>
<tr>
<td>Summer Swim Lessons</td>
<td>$0.00</td>
<td>$2.50</td>
<td>$2.50</td>
<td>$2.50</td>
<td>$2.50</td>
<td>$2.50</td>
</tr>
<tr>
<td>Winter Swim Lessons</td>
<td>$0.00</td>
<td>$2.00</td>
<td>$2.00</td>
<td>$2.00</td>
<td>$2.00</td>
<td>$2.00</td>
</tr>
<tr>
<td>Lifeguard Training</td>
<td>$0.00</td>
<td>$2.50</td>
<td>$2.50</td>
<td>$2.50</td>
<td>$2.50</td>
<td>$2.50</td>
</tr>
<tr>
<td>Wellness Programming</td>
<td>$0.00</td>
<td>$1.50</td>
<td>$1.50</td>
<td>$1.50</td>
<td>$1.50</td>
<td>$1.50</td>
</tr>
<tr>
<td>Birthday Party</td>
<td>$0.00</td>
<td>$75.00</td>
<td>$75.00</td>
<td>$100.00</td>
<td>$100.00</td>
<td>$100.00</td>
</tr>
<tr>
<td>Private Rental</td>
<td>$0.00</td>
<td>$50.00</td>
<td>$50.00</td>
<td>$50.00</td>
<td>$50.00</td>
<td>$50.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opinion of Revenue (Net)</th>
<th>Sprayground</th>
<th>SFAC</th>
<th>MFAC</th>
<th>Comm Indoor</th>
<th>Large Indoor</th>
<th>50 Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swim Meet Rental</td>
<td>$0</td>
<td>$2,500</td>
<td>$2,500</td>
<td>$16,000</td>
<td>$37,500</td>
<td>$37,500</td>
</tr>
<tr>
<td>USA Swim Team</td>
<td>$0</td>
<td>$7,000</td>
<td>$7,000</td>
<td>$27,000</td>
<td>$60,000</td>
<td>$60,000</td>
</tr>
<tr>
<td>Summer Swim Lessons</td>
<td>$0</td>
<td>$3,000</td>
<td>$3,000</td>
<td>$6,000</td>
<td>$6,000</td>
<td>$1,800</td>
</tr>
<tr>
<td>Winter Swim Lessons</td>
<td>$0</td>
<td>$3,600</td>
<td>$3,600</td>
<td>$3,750</td>
<td>$3,750</td>
<td>$3,750</td>
</tr>
<tr>
<td>Lifeguard Training</td>
<td>$0</td>
<td>$125</td>
<td>$125</td>
<td>$3,375</td>
<td>$3,375</td>
<td>$3,375</td>
</tr>
<tr>
<td>Wellness Programming</td>
<td>$0</td>
<td>$450</td>
<td>$450</td>
<td>$3,250</td>
<td>$3,250</td>
<td>$2,250</td>
</tr>
<tr>
<td>Birthday Party</td>
<td>$0</td>
<td>$10,500</td>
<td>$10,500</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Private Rental</td>
<td>$0</td>
<td>$2,000</td>
<td>$2,000</td>
<td>$4,000</td>
<td>$4,000</td>
<td>$4,000</td>
</tr>
</tbody>
</table>

| User-Group Revenue        | $0          | $14,875| $25,575| $70,350     | $124,850     | $117,125 |
Admission Fees
In order to project revenue, fee schedules are established. Three general approaches to evaluating the fee structure of an aquatic center include the following.

1. Maximize revenue by charging what the market will support. Programs and facilities operate with positive cash flow. If excess funds are available at season’s end, they can be used to support under-funded programs.

2. Break-even in the operation of the facility. This approach is increasing in popularity as funding is becoming limited to organizations that use the facility. Capital funds are used to create the facility; operational funds are generated from the user on a break-even basis.

3. Subsidy pricing historically has been the policy of many community facilities and is currently the strategy of the city’s aquatic system.

A critical component of an enterprise fund management protocol is the revenue and pricing policy. The following chart shows recommended fee structures for the concept. The recommended fee is based on the existing fees at the family aquatic centers. The formula reflects the category for admission, the rate of each category, and the percentage of attendance that might be expected from that category.

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
<th>Percent of Visits</th>
<th>Per Visit Unit</th>
<th>Category</th>
<th>Rate</th>
<th>Percent of Visits</th>
<th>Per Visit Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult (15 &amp; Older)</td>
<td>5.00</td>
<td>8%</td>
<td>0.40</td>
<td>Adult (15 &amp; Older)</td>
<td>5.00</td>
<td>6%</td>
<td>0.30</td>
</tr>
<tr>
<td>Student (Under 15)</td>
<td>3.00</td>
<td>12%</td>
<td>0.36</td>
<td>Student (Under 15)</td>
<td>3.00</td>
<td>8%</td>
<td>0.24</td>
</tr>
<tr>
<td>Seniors</td>
<td>3.00</td>
<td>3%</td>
<td>0.09</td>
<td>Seniors</td>
<td>3.00</td>
<td>6%</td>
<td>0.18</td>
</tr>
<tr>
<td>Free</td>
<td>0</td>
<td>40%</td>
<td>-</td>
<td>Free</td>
<td>0</td>
<td>20%</td>
<td>-</td>
</tr>
<tr>
<td>Non-Resident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult</td>
<td>7.50</td>
<td>3%</td>
<td>0.23</td>
<td>Adult</td>
<td>7.50</td>
<td>2%</td>
<td>0.15</td>
</tr>
<tr>
<td>Child</td>
<td>5.00</td>
<td>5%</td>
<td>0.25</td>
<td>Child</td>
<td>5.00</td>
<td>3%</td>
<td>0.15</td>
</tr>
<tr>
<td>Season Pass</td>
<td></td>
<td></td>
<td></td>
<td>Annual Pass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resident</td>
<td></td>
<td></td>
<td></td>
<td>Resident</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult</td>
<td>45.00</td>
<td>5%</td>
<td>0.11</td>
<td>Adult</td>
<td>180.00</td>
<td>12%</td>
<td>0.54</td>
</tr>
<tr>
<td>Student</td>
<td>15.00</td>
<td>3%</td>
<td>0.02</td>
<td>Student</td>
<td>60.00</td>
<td>15%</td>
<td>0.23</td>
</tr>
<tr>
<td>Senior</td>
<td>30.00</td>
<td>2%</td>
<td>0.03</td>
<td>Senior</td>
<td>120.00</td>
<td>7%</td>
<td>0.21</td>
</tr>
<tr>
<td>Family (4)</td>
<td>70.00</td>
<td>9%</td>
<td>0.08</td>
<td>Family (4)</td>
<td>280.00</td>
<td>13%</td>
<td>0.30</td>
</tr>
<tr>
<td>Non-Resident</td>
<td></td>
<td></td>
<td></td>
<td>Non-Resident</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual</td>
<td>65.00</td>
<td>6%</td>
<td>0.26</td>
<td>Individual</td>
<td>260.00</td>
<td>5%</td>
<td>0.37</td>
</tr>
<tr>
<td>Family</td>
<td>150.00</td>
<td>4%</td>
<td>0.05</td>
<td>Family</td>
<td>600.00</td>
<td>3%</td>
<td>0.16</td>
</tr>
<tr>
<td>Subtotal / Average</td>
<td>100%</td>
<td>1.88</td>
<td></td>
<td>Subtotal / Average</td>
<td>100%</td>
<td>2.83</td>
<td></td>
</tr>
<tr>
<td>Food / Merchandise</td>
<td>$0.10</td>
<td></td>
<td></td>
<td>Food / Merchandise</td>
<td>$0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$1.98</td>
<td></td>
<td></td>
<td>Total</td>
<td>$2.88</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following table takes into consideration the revenue streams from special user group and general attendance, resulting in an opinion of revenue for the options.

<table>
<thead>
<tr>
<th>Opinion of Expenses</th>
</tr>
</thead>
</table>

**Facility Staff**
Projected annual payroll expenses are listed by summer and winter classifications reflecting benefits and taxes. Scheduling employees is determined by programming demand and management procedure. Wherever possible, pay rates were determined using existing city job classifications and wage scales.

<table>
<thead>
<tr>
<th>Job Description</th>
<th>Hours Per Day</th>
<th>Cost Per Hour</th>
<th>Days per Season</th>
<th>Total Employer Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spryg</td>
<td>SFAC</td>
<td>MFAC</td>
<td>Comm Indoor</td>
</tr>
<tr>
<td>Cashier</td>
<td>0</td>
<td>11</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Pool Manager</td>
<td>0</td>
<td>11</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Lifeguard</td>
<td>0</td>
<td>110</td>
<td>69</td>
<td>89</td>
</tr>
<tr>
<td>Maintenance</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Summer Total</td>
<td>4</td>
<td>136</td>
<td>202</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cashier</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Pool Manager</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Lifeguard</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Maintenance</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Winter Total</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>86</td>
</tr>
</tbody>
</table>

Annual Labor Expense  
$16,442 $177,556 $256,872 $408,830 $460,178 $372,232
Commodities
Commodities are day-to-day products used to operate aquatic centers. Office supplies, program supplies, custodial supplies, repair supplies and chemicals are included. In determining annual chemical expense, chemical treatment assumes the use of calcium hypochlorite and muriatic acid (pH buffer). Chemical use can depend upon bather load and chemical balance of the water. In estimating annual costs, medium bather load figures are assumed.

Heating/Dehumidification
In determining utility costs, current energy costs at other facilities in the area were reviewed. Total costs include energy, energy demand and delivery charges. Caution must be used when comparing this cost with operating expenses of other facilities across the country.

Electricity
The calculations are based on 2013 utility rate information. A figure of $0.069 cents per kWh was estimated, including both demand and energy costs.

Water and Sewer
Water and sewer services will be needed for domestic use and compensation for evaporation and backwashing purposes. Backwash water and domestic water will be released to the sanitary system. This does not include landscape irrigation.

Expenses
The following table reflects a summary of all operating expenses, assumptions, and estimates detailed by the expense category.
## Summary

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sprayground</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project Cost</strong></td>
<td>$630,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attendance</strong></td>
<td>14,235</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Expense</strong></td>
<td>$32,449</td>
<td>$33,260</td>
<td>$34,091</td>
<td>$34,944</td>
<td>$35,817</td>
</tr>
<tr>
<td><strong>Operating Cashflow</strong></td>
<td>($32,449)</td>
<td>($33,260)</td>
<td>($34,091)</td>
<td>($34,944)</td>
<td>($35,817)</td>
</tr>
<tr>
<td><strong>Recapture Rate</strong></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>SFAC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project Cost</strong></td>
<td>$4,640,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attendance</strong></td>
<td>52,666</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td>$119,328</td>
<td>$123,006</td>
<td>$126,715</td>
<td>$130,456</td>
<td>$134,229</td>
</tr>
<tr>
<td><strong>Expense</strong></td>
<td>$269,478</td>
<td>$276,215</td>
<td>$283,120</td>
<td>$290,198</td>
<td>$297,453</td>
</tr>
<tr>
<td><strong>Operating Cashflow</strong></td>
<td>($150,150)</td>
<td>($153,209)</td>
<td>($156,405)</td>
<td>($159,742)</td>
<td>($163,225)</td>
</tr>
<tr>
<td><strong>Recapture Rate</strong></td>
<td>44%</td>
<td>45%</td>
<td>45%</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td><strong>MFAC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project Cost</strong></td>
<td>$8,414,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attendance</strong></td>
<td>77,470</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td>$179,220</td>
<td>$184,957</td>
<td>$190,759</td>
<td>$196,627</td>
<td>$202,560</td>
</tr>
<tr>
<td><strong>Expense</strong></td>
<td>$429,580</td>
<td>$440,319</td>
<td>$451,327</td>
<td>$462,611</td>
<td>$474,176</td>
</tr>
<tr>
<td><strong>Operating Cashflow</strong></td>
<td>($250,360)</td>
<td>($255,363)</td>
<td>($260,568)</td>
<td>($265,984)</td>
<td>($271,616)</td>
</tr>
<tr>
<td><strong>Recapture Rate</strong></td>
<td>42%</td>
<td>45%</td>
<td>45%</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td><strong>Comm Indoor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project Cost</strong></td>
<td>$13,437,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attendance</strong></td>
<td>67,918</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td>$266,185</td>
<td>$273,213</td>
<td>$280,310</td>
<td>$287,476</td>
<td>$294,710</td>
</tr>
<tr>
<td><strong>Expense</strong></td>
<td>$842,766</td>
<td>$863,835</td>
<td>$885,431</td>
<td>$907,567</td>
<td>$930,256</td>
</tr>
<tr>
<td><strong>Operating Cashflow</strong></td>
<td>($576,581)</td>
<td>($590,622)</td>
<td>($605,121)</td>
<td>($620,091)</td>
<td>($635,546)</td>
</tr>
<tr>
<td><strong>Recapture Rate</strong></td>
<td>32%</td>
<td>32%</td>
<td>32%</td>
<td>32%</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Large Indoor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project Cost</strong></td>
<td>$18,519,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attendance</strong></td>
<td>80,104</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td>$355,823</td>
<td>$364,598</td>
<td>$373,483</td>
<td>$382,477</td>
<td>$391,582</td>
</tr>
<tr>
<td><strong>Expense</strong></td>
<td>$1,048,552</td>
<td>$1,074,766</td>
<td>$1,101,635</td>
<td>$1,129,176</td>
<td>$1,157,405</td>
</tr>
<tr>
<td><strong>Operating Cashflow</strong></td>
<td>($692,729)</td>
<td>($710,168)</td>
<td>($728,152)</td>
<td>($746,699)</td>
<td>($765,824)</td>
</tr>
<tr>
<td><strong>Recapture Rate</strong></td>
<td>34%</td>
<td>34%</td>
<td>34%</td>
<td>34%</td>
<td>34%</td>
</tr>
<tr>
<td><strong>50 Meter</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Project Cost</strong></td>
<td>$15,500,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attendance</strong></td>
<td>50,310</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td>$262,190</td>
<td>$267,614</td>
<td>$273,103</td>
<td>$278,657</td>
<td>$284,275</td>
</tr>
<tr>
<td><strong>Expense</strong></td>
<td>$848,497</td>
<td>$869,710</td>
<td>$891,452</td>
<td>$913,739</td>
<td>$936,582</td>
</tr>
<tr>
<td><strong>Operating Cashflow</strong></td>
<td>($586,308)</td>
<td>($602,096)</td>
<td>($618,349)</td>
<td>($635,082)</td>
<td>($652,307)</td>
</tr>
<tr>
<td><strong>Recapture Rate</strong></td>
<td>31%</td>
<td>31%</td>
<td>31%</td>
<td>30%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Aquatic National Trends

When developing tomorrow’s vision for aquatic programming, it is important to understand traditional uses and trends in aquatic programs. Trends evolve in the aquatic industry as swimming expectations evolve. Free-form leisure pools invite recreation with wide, irregularly shaped expanses of water with ample amenities for participation. Multi-generational facilities provide bodies of water for lessons and fitness, wellness needs, competitive needs, and family leisure needs with separate spaces for different age groups. The old theory of building a rectangular pool and expecting everyone to jump in is unrealistic for tots, families, the ADA population, and seniors. Often, multiple bodies of water are necessary to accommodate greater representation from the community.

Today’s aquatic centers incorporate recreation swimming and wellness pools to augment revenue of competitive swimming, thereby creating multi-generational facilities through shared expenses. Contemporary aquatic centers are fully ADA accessible where everyone can benefit from aquatic activities. As more athletes cross train with water fitness components and more doctors recommend water rehabilitation for injured, obese, diabetic, and aging patients, multi-generational aquatic centers are inclusive of the entire community.

Fewer and Larger Facilities

- Family Aquatic Centers (FAC) vs. Standard (traditional) Pools
- Indoor / Outdoor “Mega” Facilities
- Pay-to-Play (Cutting-Edge Swim Features)
- Average Number of Staff (One Shift) 15-20
- Average Cost Recovery Rate 80 - 90%
  - Does NOT include Debt Service

Aquatic Implementation Strategies

- Neighborhood Approach – Offer numerous smaller facilities with one body of water for each neighborhood.
- Community Approach – Offer two to three medium facilities each with multiple bodies of water located throughout the community
- Central Approach – Offer one centralized facility with several bodies of water to serve the entire community.

Typical Fees

Ultimately, aquatic centers depend on repeat business to survive. An affordable experience, both in terms of admission and spending, depends on what the market will bear. The highest rate is the general admission rate, which is usually charged to adults over 18. In addition to the general admission rate, there are a number of discounted rates, including youth and senior general admission rates, group rates, promotional rates, and season passes for individuals and families. In order to analyze revenue, the following is an industry evaluation of daily admissions, season pass memberships, and concession percentages.

- Child 3 and Under / Seniors: Free
- Child Admission: $3 - $4
- Adult Resident Admission: $4 - $6
- Non-Resident Adult Admission: $6

<table>
<thead>
<tr>
<th></th>
<th>General Admission</th>
<th>Season Passes</th>
<th>Food &amp; Beverage</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child 3 and Under/Seniors</td>
<td>70%</td>
<td>25%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>Child Admission</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Resident Admission</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Resident Adult</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Studied Implementation Scenarios

In order to develop the recommend aquatic plan, two implementation scenarios were analyzed to determine the best overall solution for the city. Scenario 1 is based on current trends to offer a greater experience for the users and operate more efficiently than older systems by utilizing fewer larger facilities. Scenario 2 is based around a more historical approach of offering a greater number of smaller facilities located in neighborhood parks around the city.

**Scenario 1**

- Add Centralized indoor facility (Large Indoor)
- Add outdoor pool to Southwest (Medium FAC)
- Add sprayground to East (Sprayground)
- Maintain operation of all other facilities

<table>
<thead>
<tr>
<th>FAC = 3 Mile Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spray Ground / Wading = 1 Mile Radius</td>
</tr>
<tr>
<td>Indoor = 5 Mile Radius</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Central</th>
<th>Southwest</th>
<th>East</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Indoor</td>
<td>$18,519,000</td>
<td>$8,414,000</td>
<td>$630,000</td>
</tr>
<tr>
<td>Medium FAC</td>
<td>$8,414,000</td>
<td>$428,580</td>
<td>$32,449</td>
</tr>
<tr>
<td>Total</td>
<td>$27,563,000</td>
<td>$8,842,580</td>
<td>$962,449</td>
</tr>
</tbody>
</table>

- **Project Cost**: $27,563,000
- **Attendance**: 80,104
- **Revenue**: $355,823
- **Expense**: $1,048,552
- **Operating Cashflow**: $(692,729)
- **Recapture Rate**: 34%
- **Daily Operating Cost**: $(1,924.25)

Note: Revenue estimates assume continuing subsidized entry program for qualified families
Scenario 2

- Replace all traditional pools (Small FAC)
- Add indoor facility in the North (Comm. Indoor)
- Add indoor facility in the South (Comm. Indoor)
- Maintain operation of all other facilities

Note: Revenue estimates assume continuing subsidized entry program for qualified families.
Aquatic Master Plan Comparison

Scenario 1
- Total Cost: $27,563,000
- Includes:
  - 4 outdoor FAC
  - 1 large indoor
  - 3 spraygrounds / wading pools
- Pros:
  - Sustainable system for long term operation
  - Meets the needs of all users
  - Offers 50 meter competition
- Cons:
  - Further drive time for some residents

Scenario 2
- Total Cost: $40,794,000
- Includes:
  - 6 outdoor FAC
  - 2 comm. indoor
  - 2 spraygrounds / wading pool
- Pros:
  - Closer proximity for most residents
- Cons:
  - Larger subsidy and capital cost compared to option 1
  - Overlapping service areas
  - Service areas go outside city boundaries
  - No 50 meter pools

Recommended Aquatic Master Plan
In determining an Aquatic Master Plan, the city looked at the needs of the local aquatics groups, neighborhoods and other service providers. Moreover, factors such as accessibility, affordability and sustainability were taken into consideration.

The consultant’s professional recommendation is based upon feedback from previous briefings, ability to provide coverage to the entire city, industry trends, and area research. Aquatic System Scenario 1 is recommended for implementation.
Site Analysis

Depending on the final sites chosen, building sizes will dramatically impact the use of the sites and in some cases will limit the amount of future development. Site priority should be given to sites that offer the following external factors and site characteristics.

External Factors
- Ease of Public Transit Access
- Ease of Bicycle and Pedestrian Access
- Distance from Competing Facilities
- Compatible Facilities
- Compatible Zoning Designations
- Population Density

Site Characteristics
- Ownership
- Value of Existing Site Improvements
- Topography
- Visibility

Site Characteristics
For the purpose of this study, the following sites were reviewed to determine if they met the requirements for the different toolbox components included in the recommended aquatic system.

Sherman Park (Central)
- Limited space
- Requires elimination of existing park facilities

Longfellow Elementary (Central)
- Limited space

Nelson Park / Former Drake Springs (Central)
- Ground water issues / unstable soils

Spellerberg Park (Central)
- No known issues

Sanford Sports Complex (North)
- No known issues

School for the Deaf (East)
- Not city owned

Frank Olson (East)
- No known issues

Ice and Rec Center (South)
- Limited Space

Kuehn (Southwest)
- No known issues

Vacant Land (Southwest)
- Not city owned / limited availability
Implementation / Phasing

In developing the implementation strategies, the city not only looked at multiple scenarios in meeting aquatic needs but also distance from facilities and access both financially and geographically in each area. Of equal importance, providing affordable access to aquatic facilities for all segments of its citizenry has been tailored to strike a careful balance between securing reasonable compensation for enhanced amenities while preserving the program’s tradition of affordability.

In this concluding section, a recommended implementation strategy is proposed for the City of Sioux Falls aquatics system. The recommendations are built on all of the information developed in each prior section of this report and translate these many factors into a concrete, fully realizable blueprint for the future development of the city’s aquatic facilities and programming. It is recommended that the city continues to study its growth and needs as each phase is implemented. Based on the current age, existing usage, and anticipated remaining life, it is recommended to phase the Sioux Falls’ aquatic system in the following order:

**Phase 1 – within 2-3 years ($18,500,000)**
- Replace existing Spellerberg pool with large indoor
  - This was determined as a top priority due to the current condition of Spellerberg pool. By moving forward with a new indoor facility, the immediate need for year round programming can be met while maintaining an aquatic presence at this park site. The year round programming could also include warm water therapy opportunities to be offered in conjunction with the VA hospital, further enhancing the wellness opportunities available to the veterans. There is also significant concern about the impact traffic could have on the neighborhood. Due to this, replacement of Spellerberg pool with a new outdoor FAC is not recommended since the area cannot handle the traffic/parking increase that a new outdoor pool would create. This site is also centrally located to serve the entire community.

**Phase 2 – within 3-5 years ($630,000)**
- Replace existing Frank Olson pool with outdoor sprayground.
  - Frank Olson will need to be shut down in the not too distant future. While this area falls within the service areas of the other FAC’s, it is important to maintain an aquatic presence at the park site that the addition of the sprayground would offer.

**Phase 3 – within 7-10 years ($8,500,000)**
- Replace existing Kuehn pool with medium FAC
  - Similar to the previous sites, maintaining an aquatic presence at Kuehn is important. With the growth of families with young children and with no other facility servicing this area, the medium FAC will increase the capacity to accommodate the increasing population.
Facility Audit Report

The following report was prepared after a two (2) day site visit on January 23rd and 24th to the following existing Sioux Falls Pools: Spellerberg Park Pools, Frank Olson Pools, McKennan Park Wading Pool, Kuehn Park Pools, Terrace Park Family Aquatic Center, Laurel Oak Family Aquatic Center, Drake Springs Family Aquatic Center, and the Pioneer Sprayground. Conditions were evaluated and interviews were conducted with personnel who were familiar with the construction and operation of the facilities. Field notes, meeting minute notes, and photographs were utilized to prepare assessments, and preliminary recommendations.

Goals of the Pool Facility Assessments:

- Review the pool facilities for deficiencies with regard to current local health code, federal law, and industry standards.

- Prepare specific commentary on any necessary repairs, replacement or restoration of the pool facility systems, including identification of issues requiring further intensive evaluation and analysis.

- Recommend priority of renovation or replacement of pool facility systems, (i.e., immediate, remedial, and/or long range, etc.).
Executive Summary

Counsilman-Hunsaker completed a two (2) day site visit on January 23rd and 24th to the eight (8) existing outdoor aquatic facilities in the City of Sioux Falls, SD. Counsilman Hunsaker compiled a written report with detailed analyses based on City staff interviews, the visual observations during the site visit, and information provided by staff in the form of drawings and specifications.

The following list summarizes the conditions identified in the report organized by priority level in terms of the overall condition of each facility with the facility in the worst condition listed first and the facility in the best condition listed last. The list does not identify every condition noted in the report.

Facility Repair/Renovation/Replacement Priority Level (Ordered Worst to Best):

1. Spellerberg Park Pools
2. Frank Olson Pools
3. McKennan Park Wading Pool
4. Kuehn Park Swimming Pools
5. Terrace Park Family Aquatic Center
6. Pioneer Park Sprayground
7. Laurel Oak Family Aquatic Center
8. Drake Springs Family Aquatic Center

<table>
<thead>
<tr>
<th>Pool</th>
<th>Year Built</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spellerberg Park Pools</td>
<td>1969</td>
<td>44</td>
</tr>
<tr>
<td>Frank Olson Pools</td>
<td>1976</td>
<td>37</td>
</tr>
<tr>
<td>McKennan Park Wading Pool</td>
<td>1971</td>
<td>42</td>
</tr>
<tr>
<td>Kuehn Park Swimming Pools</td>
<td>1981</td>
<td>32</td>
</tr>
<tr>
<td>Terrace Park Family Aquatic Center</td>
<td>1993</td>
<td>20</td>
</tr>
<tr>
<td>Pioneer Park Sprayground</td>
<td>2009</td>
<td>4</td>
</tr>
<tr>
<td>Laurel Oak Family Aquatic Center</td>
<td>1993</td>
<td>20</td>
</tr>
<tr>
<td>Drake Springs Family Aquatic Center</td>
<td>2009</td>
<td>4</td>
</tr>
</tbody>
</table>

General Observations and Comments:

- Pool Slopes:
  - Cannot exceed 1:12 slope to depth of 5’-0” (shallow area)
  - Cannot exceed 1:3 slope to depths greater than 5’-0” (deep area)
- Pools with 1 meter and/or 3 meter diving should meet the minimum depth contour requirements of GLUMR and ANSI. If the pools host NFSHS, US Diving, or any
other level of diving competition, they should meet the most conservative requirements of the diving programming that they host.

- **Pool Turnover Rate**
  - 6 HR Maximum for Competition and Recreation Pools (2-3 HR Recommended for Lazy River and Zero Depth Entry Pools)
  - 1 HR Maximum for Wading Pools
- **Wading Pools must be on separate system from other pools.**
- **All pools should have their own respective recirculation system.** Comingling of water in a shared surge tank goes against industry standards. Feature pumps drawing from a surge tank could create water balancing issues and hinder the surge tank from operating properly.
- **Maximum depth for Wading Pools is 18” (McKennan exceeds this requirement)**
- **All Pools must have a flow meter with a digital readout displayed in GPM**
- **High Rate Sand Filtration Systems should not exceed a filtration rate of greater than 15.0 GPM/ Sq. Ft. of filter area (Frank Olson and Pioneer Sprayground)**
- **All Pools should have an equal distribution of recirculated water through the use of wall or floor return inlets (all wading pools do not meet this)**
- **The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S**
- **All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage**
- **All pools should have an automated pH delivery system**
- **All pools should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer**
- **All pools should have a Palin Pooltest 6 kit for manual water chemistry testing**
- **All pool main drains shall meet the requirements of VGB for main drain outlets**
- **All pools shall meet the ADA requirements for access (proper ADA wet ramps, pool lifts, ADA handrails for stair entries, etc.)**
- **All floor mounted equipment (e.g. pumps) should be mounted on housekeeping pads off of the pool mechanical room floor**

The conditions of the pools at Spellerberg, Frank Olson, Kuehn, and McKennan are not unusual for pools this age. As with other pools of similar age, the pools are facing physical obsolescence. Swimming pools are built to satisfy the existing standards at the time of construction or renovation. The department of health standards has changed over the years. The items identified in this report refer to items that do not meet the current South Dakota State Department of Environment and Natural Resources requirements for pools built today. When the pools were built or renovated, the construction was to current code at the time. The items identified as not meeting the current code do not indicate that the city has been operating the pools that are not to code. Pools are required to meet current codes when they are newly constructed or renovated and until such time may be considered to be “grandfathered”. This needs to be confirmed with the local department of health. For instance, the turnover rate when the pools were last renovated was eight hours. Now, the South Dakota State Department of Environment and Natural Resources requires similar type pools to have a turnover rate of six
hours. Likewise, the pools were constructed and renovated prior to the ADA (Americans with Disabilities Act) accessibility guidelines.

Thus, the issues do not indicate that the City has been operating the pools in an unsafe manner. The department of health monitors outdoor aquatic facilities during the summer months and reports deficiencies that the owner is required to address at that time. It is also assumed that since these pools are monitored by the local department of health, the pools are considered satisfactory to operate safely.
Pool Items

Administrative Code
General Pool Information
Spellerberg Park Pools
Frank Olson Pools
McKannan Park Wading Pool
Kuehn Park Swimming Pools
Laurel Oak Family Aquatic Center
Terrace Park Family Aquatic Center
Pioneer Park Sprayground
Drake Springs Family Aquatic Center
1.1 Administrative Code
The state administrative swimming pool code referenced as “South Dakota State Swimming Pool Code” or referenced as “South Dakota State Code” in the report is as follows.

South Dakota Department of Environment and Natural Resources
Administrative Rules Chapter 74:04:08:01-10
Public Beach and Municipal Pool Standards
22 SDR 133, effective April 24, 1996

Referenced Codes in South Dakota Administrative Rules Chapter 74:04:08:01-10:
Committee of the Great Lakes – Upper Mississippi River (GLUMR)
Board of State and Provincial Public Health and Environmental Managers
Recommended Standards for Swimming Pool Design and Operation
1996 Edition

National Spa and Pool Institute (NSPI)
American National Standards Institute (ANSI)
American National Standard for Public Swimming Pools
ANSI/NSPI -1 2003
Approved March 10, 2003

Applicable Federal Code Section:
Virginia Graeme Baker Pool and Spa Safety Act (VGB)
ASME/ANSI A112.19.81
Signed into Law on December 19, 2007
CPSC Staff Interpretation of Section 1404 issued on June 18, 2008

The administrative code requirements must be satisfied if a major modification of the pool is undertaken or if a particular item or piece of equipment is in need of repair. The recommended repairs address all administrative code items identified in this report.
1.2 General Pool Information

Spellerberg Park Pools

Swimming Pool:
- Surface Area = 6,975 SF
- Perimeter = 400 FT
- Dimensions = 155 FT x 45 FT
- Depth Range = 3’-1” to 12’-9”
- Volume = 304,423 gallons (estimated per provided information)
- Estimated Flow Rate = 358 GPM (4” Return Line)
- Code Required Flow Rate = 846 GPM
- Estimated Turnover Rate = 14.17 HRS
- Code Required Turnover Rate = 6.00 HRS
- Concrete Pool Shell with an Epoxy Paint Pool Finish
- Scum Gutter for Perimeter Overflow System
- Sodium Hypochlorite (Sanitizer)
- One (1) 21’-0” x 8’-0” Sand Filter Tank w/ Four (4) Cells
  *One (1) pool recirculation system for both bodies of water

Wading Pool:
- Surface Area = 1,350 SF
- Perimeter = 150 FT
- Dimensions = 30 FT x 45 FT
- Depth Range = 1’-2” to 1’-4”
- Volume = 12,622 gallons (estimated per provided information)
- Estimated Flow Rate = 90 GPM (2” Return Line)
- Code Required Flow Rate = 106 GPM (GLUMR) / 212 GPM (ANSI/NSPI)
- Estimated Turnover Rate = 2.34 HRS
- Code Required Turnover Rate = 2.00 HRS (GLUMR) / 1.00 HR (ANSI/NSPI)
- Concrete Pool Shell with an Epoxy Paint Pool Finish
- Scum Gutter for Perimeter Overflow System
- Sodium Hypochlorite (Sanitizer)
- One (1) 21’-0” x 8’-0” Sand Filter Tank w/ Four (4) Cells
  *One (1) pool recirculation system for both bodies of water

Frank Olson Pools

Competition Pool:
- Surface Area = 9,840 SF
- Perimeter = 448 FT
- Dimensions = 164 FT x 60 FT
- Depth Range = 3’-0” to 11’-4”
- Volume = 364,000 gallons (estimated per provided information)
- Provided Flow Rate = 820 GPM
52

* Code Required Flow Rate = 1,012 GPM
* Turnover Rate = 7.40 HRS
* Code Required Turnover Rate = 6.00 HRS
* Concrete Pool Shell with an Epoxy Paint Pool Finish
* Scum Gutter for Perimeter Overflow System
* Sodium Hypochlorite (Sanitizer)
* One (1) 56.7 Sq. Ft. High Rate Sand Filter Tank
* Filter Rate = 15.8 GPM/Sq. Ft. Filter Area
* *One (1) pool recirculation system for both bodies of water

**Wading Pool:**

* Surface Area = 1,600 SF
* Perimeter = 160 FT
* Dimensions = 40 FT x 40 FT
* Depth Range = 1’-3” to 1’-6”
* Volume = 16,456 gallons (estimated per provided information)
* Provided Flow Rate = 75 GPM
* Code Required Flow Rate = 138 GPM (GLUMR) / 276 GPM (ANSI/NSPI)
* Estimated Turnover Rate = 3.66 HRS
* Code Required Turnover Rate = 2.00 HRS (GLUMR) / 1.00 HR (ANSI/NSPI)
* Concrete Pool Shell with an Epoxy Paint Pool Finish
* Scum Gutter for Perimeter Overflow System
* Sodium Hypochlorite (Sanitizer)
* One (1) 56.7 Sq. Ft. High Rate Sand Filter Tank
* Filter Rate = 15.8 GPM/Sq. Ft. Filter Area
* *One (1) pool recirculation system for both bodies of water

**McKennan Park Wading Pool**

**Wading Pool:**

* Surface Area = 2,968 SF
* Perimeter = 300 FT
* Dimensions = 84 FT x 66 FT
* Depth Range = 1’-0” to 2’-6”
* Volume = 35,000 gallons (estimated per provided information)
* Provided Flow Rate = 100 GPM
* Code Required Flow Rate = 292 GPM (GLUMR) / 584 GPM (ANSI/NSPI)
* Estimated Turnover Rate = 5.83 HRS
* Code Required Turnover Rate = 2.00 HRS (GLUMR) / 1.00 HR (ANSI/NSPI)
* Concrete Pool Shell with an Epoxy Paint Pool Finish
* Scum Gutter for Perimeter Overflow System
* Sodium Hypochlorite (Sanitizer)
* One (1) Triton-II 140 6.9 Sq. Ft. High Rate Sand Filter Tank
* Filter Rate = 14.49 GPM/Sq. Ft. Filter Area
Kuehn Park Swimming Pools

Swimming Pool:
- Surface Area = 8,105 SF
- Perimeter = 468 FT
- Dimensions = 109 FT x 85 FT
- Depth Range = 2’-6” to 12’-4”
- Volume = 301,000 gallons (estimated per provided information)
- Provided Flow Rate = 575 GPM
- Code Required Flow Rate = 837 GPM
- Turnover Rate = 8.72 HRS
- Code Required Turnover Rate = 6.00 HRS
- Concrete Pool Shell with an Epoxy Paint Pool Finish
- Scum Gutter for Perimeter Overflow System
- Sodium Hypochlorite (Sanitizer)
- One (1) 21’-0” x 8’-0” Sand Filter Tank w/ Four (4) Cells
- *One (1) pool recirculation system for both bodies of water

Wading Pool:
- Surface Area = 1,600 SF
- Perimeter = 160 FT
- Dimensions = 40 FT x 40 FT
- Depth Range = 1’-0” to 1’-4”
- Volume = 13,963 gallons (estimated per provided information)
- Provided Flow Rate = 125 GPM
- Code Required Flow Rate = 117 GPM (GLUMR) / 234 GPM (ANSI/NSPI)
- Estimated Turnover Rate = 1.86 HRS
- Code Required Turnover Rate = 2.00 HRS (GLUMR) / 1.00 HR (ANSI/NSPI)
- Concrete Pool Shell with an Epoxy Paint Pool Finish
- Scum Gutter for Perimeter Overflow System
- Sodium Hypochlorite (Sanitizer)
- One (1) 21’-0” x 8’-0” Sand Filter Tank w/ Four (4) Cells
- *One (1) pool recirculation system for both bodies of water

Laurel Oak Family Aquatic Center

Recreation Pool:
- Surface Area = 7,500 SF. (estimated per provided information)
- Perimeter = Not Provided
- Dimensions = Varies by Location
- Depth Range = 0’-0” to 4’-0”
- Volume = 144,713 gallons (per provided information)
- Provided Flow Rate = 1,100 GPM
- Code Required Flow Rate = 742 GPM (GLUMR) / 402 (ANSI/NSPI)
• Turnover Rate = 2.19 HRS
• Code Required Turnover Rate = 2.00 HRS for Depth Less than 3’-0”, 6.00 HRS for Depth greater than 3’-0” (GLUMR) / 6.00 HRS (ANSI/NSPI)
• Concrete Pool Shell with an Epoxy Paint Pool Finish
• Deck Level Gutter with Concrete Grating for Perimeter Overflow System
• Sodium Hypochlorite (Sanitizer)
• Two (2) 38.5 Sq. Ft. High Rate Sand Filter Tanks (77 Sq. Ft. Total)
• Filter Rate = 14.29 GPM/Sq. Ft. Filter Area

Terrace Park Family Aquatic Center

Recreation Pool:
• Surface Area = 10,800 SF (estimated per provided information)
• Perimeter = Not Provided
• Dimensions = Varies by Location
• Depth Range = 0’-0” to 5’-0”
• Volume = 208,915 gallons (estimated per provided information)
• Provided Flow Rate = 950 GPM (maximum allowable based on 12” gravity main drain line)
• Code Required Flow Rate = 1,299 GPM (GLUMR) / 581 (ANSI/NSPI)
• Turnover Rate = 3.67 HRS
• Code Required Turnover Rate = 2.00 HRS for Depth Less than 3’-0”, 6.00 HRS for Depth greater than 3’-0” (GLUMR) / 6.00 HRS (ANSI/NSPI)
• Concrete Pool Shell with an Epoxy Paint Pool Finish
• Deck Level Gutter with Concrete Grating for Perimeter Overflow System
• Sodium Hypochlorite (Sanitizer)
• Two (2) High Rate Sand Filter Tanks
• Communal Surge Tank for all Three (3) Bodies of Water

Plunge Pool:
• Surface Area = 1,050 SF (estimated per provided information)
• Perimeter = 130 FT
• Dimensions = 35 FT x 30 FT
• Depth Range = 2’-3” to 3’-0”
• Volume = 21,600 gallons (per provided information)
• Provided Flow Rate = 427 GPM (maximum allowable based on 8” gravity main drain line)
• Code Required Flow Rate = 60 GPM
• Turnover Rate = 0.84 HRS
• Code Required Turnover Rate = 6.00 HRS
• Concrete Pool Shell with an Epoxy Paint Pool Finish
• Deck Level Gutter with Concrete Grating for Perimeter Overflow System
• Sodium Hypochlorite (Sanitizer)
• Two (2) High Rate Sand Filter Tanks
• Same Recirculation System as Drop Slide Pool
• Communal Surge Tank for all Three (3) Bodies of Water
Drop Slide Pool:

- Surface Area = 1,600 SF (estimated per provided information)
- Perimeter = 169 FT
- Dimensions = 40 FT x 40 FT
- Depth Range = 12’-0” to 12’-6”
- Volume = 146,608 gallons (per provided information)
- Provided Flow Rate = 427 GPM (maximum allowable based on 8” gravity main drain line)
- Code Required Flow Rate = 408 GPM
- Turnover Rate = 5.72 HRS
- Code Required Turnover Rate = 6.00 HRS
- Concrete Pool Shell with an Epoxy Paint Pool Finish
- Deck Level Gutter with Concrete Grating for Perimeter Overflow System
- Sodium Hypochlorite (Sanitizer)
- Two (2) High Rate Sand Filter Tanks
- Same Recirculation System as Plunge Pool
- Communal Surge Tank for all Three (3) Bodies of Water

Pioneer Spray Park

Sprayground:

- Surface Area = 3,150 SF (estimated from provided information)
- Perimeter = Not Provided
- Dimensions = 78 FT x 51 FT
- Balance Tank Volume = 3,000 gallons (per provided information)
- Provided Flow Rate = 140 GPM
- Code Required Flow Rate = 100 GPM
- Estimated Turnover Rate = 0.36 HRS
- Code Required Turnover Rate = 0.50 HRS
- Broom Finished Concrete Slab
- Two (2) Gravity Flow Main Drains for Overflow System
- Sodium Hypochlorite (Sanitizer)
- Muriatic Acid (pH Buffer)
- Ultraviolet Dechloramination and Sanitization System (Tertiary Treatment)
- One (1) Triton-II 140c 7.06 Sq. Ft. High Rate Sand Filter Tank
- Filter Rate = 19.83 GPM/Sq. Ft. Filter Area

Drake Springs Family Aquatic Center

Recreation Pool:

- Surface Area = 2,792 SF (per provided information)
- Perimeter = Not Provided
- Dimensions = Varies by Location
- Depth Range = 0’-0” to 3’-6”
Volume = 41,630 gallons (per provided information)
Provided Flow Rate = 320 GPM
Code Required Flow Rate = 241 GPM (GLUMR) / 116 (ANSI/NSPI)
Turnover Rate = 2.17 HRS
Code Required Turnover Rate = 2.00 HRS for Depth Less than 3’-0”, 6.00 HRS for Depth greater than 3’-0” (GLUMR) / 6.00 HRS (ANSI/NSPI)
Concrete Pool Shell with an Epoxy Paint Pool Finish
Deck Level Gutter with Perpendicular PVC Grating for Perimeter Overflow System
Sodium Hypochlorite (Sanitizer)
Muriatic Acid (pH Buffer)
Two (2) 15.90 Sq. Ft. High Rate Sand Filter Tanks, (31.80 Sq. Ft. Total)
Filter Rate = 10.06 GPM/Sq. Ft. Filter Area

Lap Pool:
Surface Area = 2,632 SF (per provided information)
Perimeter = 237 FT
Dimensions = 75 FT x 44 FT
Depth Range = 3’-6” to 13’-6”
Volume = 173,980 gallons (per provided information)
Provided Flow Rate = 500 GPM
Code Required Flow Rate = 484 GPM
Turnover Rate = 5.80 HRS
Code Required Turnover Rate = 6.00 HRS
Concrete Pool Shell with an Epoxy Paint Pool Finish
Deck Level Gutter with Perpendicular PVC Grating for Perimeter Overflow System
Sodium Hypochlorite (Sanitizer)
Muriatic Acid (pH Buffer)
Two (2) 23.76 Sq. Ft. High Rate Sand Filter Tanks, (47.52 Sq. Ft. Total)
Filter Rate = 10.52 GPM/Sq. Ft. Filter Area

Lazy River Pool:
Surface Area = 5,427 SF (estimated per provided information)
Perimeter = Not Provided
Dimensions = Varies by Location
Depth Range = 0’-0” to 3’-6”
Volume = 124,870 gallons (per provided information)
Provided Flow Rate = 1,100 GPM
Code Required Flow Rate = 1,041 GPM (GLUMR) / 347 (ANSI/NSPI)
Turnover Rate = 5.72 HRS
Code Required Turnover Rate = 2.00 HRS for Depth Less than 3’-0”, 6.00 HRS for Depth greater than 3’-0” (GLUMR) / 6.00 HRS (ANSI/NSPI)
Concrete Pool Shell with an Epoxy Paint Pool Finish
Deck Level Gutter with Concrete Grating for Perimeter Overflow System
Sodium Hypochlorite (Sanitizer)
Muriatic Acid (pH Buffer)
Two (2) 50.27 Sq. Ft. High Rate Sand Filter Tanks, (100.54 Sq. Ft. Total)
Filter Rate = 10.94 GPM/Sq. Ft. Filter Area
1.3 Spellerberg Park Pools

- Pool Slopes:
  - Cannot exceed 1:12 slope to depth of 5’-0” (shallow area)
  - Cannot exceed 1:3 slope to depths greater than 5’-0” (deep area)

- Pools with 1 meter diving should meet the minimum depth contour requirements of GLUMR and ANSI. If the pools host NFSHS, US Diving, or any other level of diving competition, they should meet the most conservative requirements of the diving programming that they host.

- Pool Turnover Rate
  - 6 HR Maximum for Competition and Recreation Pools (2-3 HR Recommended for Lazy River and Zero Depth Entry Pools)
  - 1 HR Maximum for Wading Pools

- Wading Pools must be on separate recirculation and chemical treatment system from other pools.

- All Pools must have a flow meter with a digital readout displayed in GPM

- All Pools should have an equal distribution of recirculated water through the use of wall or floor return inlets. The Wading Pool does not meet this.

- The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S

- All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage

- All pools should have an automated pH delivery system

- All pools should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer

- All pools should have a Palin Pooltest 6 kit for manual water chemistry testing

- All pool main drains shall meet the requirements of VGB for main drain outlets

- All pools shall meet the ADA requirements for access (proper ADA wet ramps, pool lifts, ADA handrails for stair entries, etc.)
Recommendation

Based on the age of the pools, it would not be cost effective to make all of the repairs needed to bring the facility up to the current code requirements. It would be more cost effective to completely demolish the pools and start from scratch. Based on the recommendations from the master plan, the intent is to eventually close this pool and
replace with a modern aquatic facility. It is recommended that in the meantime, small repairs are made to keep the facility operational until its eventual closing.

1.4 Frank Olson Pools

- Pool Slopes:
  - Cannot exceed 1:12 slope to depth of 5’-0” (shallow area)
  - Cannot exceed 1:3 slope to depths greater than 5’-0” (deep area)
- Pools with 1 meter diving should meet the minimum depth contour requirements of GLUMR and ANSI. If the pools host NFSHS, US Diving, or any other level of diving competition, they should meet the most conservative requirements of the diving programming that they host.
- Pool Turnover Rate
  - 6 HR Maximum for Competition and Recreation Pools (2-3 HR Recommended for Lazy River and Zero Depth Entry Pools)
  - 1 HR Maximum for Wading Pools
- Wading Pools must be on separate recirculation and chemical treatment system from other pools.
- All Pools must have a flow meter with a digital readout displayed in GPM
- All Pools should have an equal distribution of recirculated water through the use of wall or floor return inlets. The Wading Pool does not meet this.
- The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S
- High Rate Sand Filtration Systems should not exceed a filtration rate of greater than 15.0 GPM/ Sq. Ft. of filter area
- All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage
- All pools should have an automated pH delivery system
- All pools should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer
- All pools should have a Palin Pooltest 6 kit for manual water chemistry testing
- All pool main drains shall meet the requirements of VGB for main drain outlets
- All pools shall meet the ADA requirements for access (proper ADA wet ramps, pool lifts, ADA handrails for stair entries, etc.)
**Recommendation**

Based on the age of the pools, it would not be cost effective to make all of the repairs needed to bring the facility up to the current code requirements. It would be more cost effective to completely demolish the pools and start from scratch. The City has stated that their intent is to eventually close this facility. It is recommended that in the meantime, small repairs are made to keep the facility operational until its eventual closing.

**1.5 McKennan Park Wading Pool**

- Pool Turnover Rate
  - 1 HR Maximum for Wading Pools
- Maximum depth for Wading Pools is 18” (McKennen exceeds this requirement)
- All Pools must have a flow meter with a digital readout displayed in GPM
- All Pools should have an equal distribution of recirculated water through the use of wall or floor return inlets (all wading pools do not meet this)
- The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S
- All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage
- All pools should have an automated pH delivery system
- All pools should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer
- All pools should have a Palin Pooltest 6 kit for manual water chemistry testing
- All pool main drains shall meet the requirements of VGB for main drain outlets
- All pools shall meet the ADA requirements for access (proper ADA wet ramps, pool lifts, ADA handrails for stair entries, etc.)
Recommendation

The City has stated that this pool is one of the most popular in terms of attendance and that it intends on keeping it open for the foreseeable future. In order to do so, it is recommended that this pool be brought up to the current code standards for a Wading Pool. The pool recirculation system and piping system will need to be upsized to meet a one (1) hour turn-over rate in accordance with (ANSI) and industry standards. The deck between the pool and the pool mechanical room will need to be partially demolished, and new wall inlets will need to be installed around the pool perimeter. The pool will need to have VGB compliant main drain covers and suction outlets installed. A surge tank and gutter dropout lines will need to be provided for the gutter system. An ADA ramp with a 1:12 slope, compliant hand rails, and a landing area at water depth of 1’-6” will need to be added to the deeper portion of the pool. Two (2) separate chemical rooms with proper HAZMAT signage, ventilation to the building exterior, and proper fire rating in accordance with local fire marshal should be created for the pool sanitizer and pool pH buffer chemicals. A flow meter needs to be installed on the pool return line. The pool should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer.

1.6 Kuehn Park Swimming Pools

- Pool Slopes:
  - Cannot exceed 1:12 slope to depth of 5’-0” (shallow area)
  - Cannot exceed 1:3 slope to depths greater than 5’-0” (deep area)
- Pools with 1 meter and/or 3 meter diving should meet the minimum depth contour requirements of GLUMR and ANSI. If the pools host NFSHS, US Diving, or any other level of diving competition, they should meet the most conservative requirements of the diving programming that they host.
- Pool Turnover Rate
- 6 HR Maximum for Competition and Recreation Pools (2-3 HR Recommended for Lazy River and Zero Depth Entry Pools)
- 1 HR Maximum for Wading Pools
  - Wading Pools must be on separate system from other pools.
  - All pools should have their own respective recirculation system. Comingling of water in a shared surge tank goes against industry standards. Feature pumps drawing from a surge tank could create water balancing issues and hinder the surge tank from operating properly.
  - All Pools must have a flow meter with a digital readout displayed in GPM
  - All Pools should have an equal distribution of recirculated water through the use of wall or floor return inlets (all wading pools do not meet this)
  - The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S
  - All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage
  - All pools should have an automated pH delivery system
  - All pools should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer
  - All pools should have a Palin Pooltest 6 kit for manual water chemistry testing
  - All pool main drains shall meet the requirements of VGB for main drain outlets
  - All pools shall meet the ADA requirements for access (proper ADA wet ramps, pool lifts, ADA handrails for stair entries, etc.)
Recommendation

Based on the age of the pools, it would not be cost effective to make all of the repairs needed to bring the facility up to the current code requirements. It would be more cost effective to completely demolish the pools and start from scratch. The City has stated that
their intent is to eventually close this facility. It is recommended that in the meantime, small repairs are made to keep the facility operational until its eventual closing.

1.7 Laurel Oak Family Aquatic Center

- **Pool Slopes:**
  - Cannot exceed 1:12 slope to depth of 5’-0” (shallow area)
  - Cannot exceed 1:3 slope to depths greater than 5’-0” (deep area)
- **Pool Turnover Rate**
  - 6 HR Maximum for Competition and Recreation Pools (2-3 HR Recommended for Lazy River and Zero Depth Entry Pools)
  - 1 HR Maximum for Wading Pools
- All Pools must have a flow meter with a digital readout displayed in GPM
- The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S
- All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage
- All pools should have an automated pH delivery system
- All pools should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer
- All pools should have a Palin Pooltest 6 kit for manual water chemistry testing
- All pool main drains shall meet the requirements of VGB for main drain outlets
- All pools shall meet the ADA requirements for access (proper ADA wet ramps, pool lifts, ADA handrails for stair entries, etc.)
Recommendation

Due to the construction date and good condition of this facility, it is recommended that minor repairs be made to make the facility compliant with current codes. A primary means of ADA access of either an ADA ramp (with a 1:12 slope, compliant hand rails, and a landing area at water depth of 1’-6”) or a fixed ADA compliant pool lift will need to be provided. If the pool perimeter exceeds 300 Linear Feet, then a secondary means of access such as a stair entry with ADA compliant handrails or an additional primary means of access needs to be added. Two (2) separate chemical rooms with proper HAZMAT
signage, ventilation to the building exterior, and proper fire rating in accordance with local fire marshal should be created for the pool sanitizer and pool pH buffer chemicals. A flow meter needs to be installed on the pool return line. The pool should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer.

1.8 Terrace Park Family Aquatic Center

- **Pool Slopes:**
  - Cannot exceed 1:12 slope to depth of 5’-0” (shallow area)
  - Cannot exceed 1:3 slope to depths greater than 5’-0” (deep area)
- **Pool Turnover Rate**
  - 6 HR Maximum for Competition and Recreation Pools (2-3 HR Recommended for Lazy River and Zero Depth Entry Pools)
- All pools should have their own respective recirculation system. Comingling of water in a shared surge tank goes against industry standards. Feature pumps drawing from a surge tank could create water balancing issues and hinder the surge tank from operating properly.
- All Pools must have a flow meter with a digital readout displayed in GPM
- The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S
- All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage
- All pools should have an automated pH delivery system
- All pools should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer
- All pools should have a Palin Pooltest 6 kit for manual water chemistry testing
- All pool main drains shall meet the requirements of VGB for main drain outlets
- All pools shall meet the ADA requirements for access (proper ADA wet ramps, pool lifts, ADA handrails for stair entries, etc.)
**Recommendation**

Due to the construction date and good condition of this facility, it is recommended that minor repairs be made to make the facility compliant with current codes. A primary means of ADA access of either an ADA ramp (with a 1:12 slope, compliant hand rails, and a landing area at water depth of 1’-6”) or a fixed ADA compliant pool lift will need to be provided for each body of water. If a pool perimeter exceeds 300 Linear Feet, then a secondary means of access such as a stair entry with ADA compliant handrails or an additional primary means of access needs to be added. Two (2) separate chemical rooms with proper HAZMAT signage, ventilation to the building exterior, and proper fire rating in accordance with local fire marshal should be created for the pool sanitizer and pool pH buffer chemicals. A flow meter needs to be installed on each pool return line. Each pool should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer. Provide separate surge tanks for each body of water. Feature pumps should be re-plumbed to draw water from a designated VGB compliant main drain system for their respective body of water. Commingling of water in a shared surge tank goes against industry standards. Feature pumps drawing from a surge tank could create water balancing issues and hinder the surge tank from operating properly.

1.9 **Pioneer Park Sprayground**

- Sprayground recirculation system must have a flow meter with a digital readout displayed in GPM
- High Rate Sand Filtration Systems should not exceed a filtration rate of greater than 15.0 GPM/ Sq. Ft. of filter area
- The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S
- All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage
- Sprayground should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Chemical controller should be able to
control delivery of pool sanitizer and pH buffer. Additionally, chemical controller should be manufactured by a commercial pool equipment company and should be able to be easily serviced in a timely manner.

- Sprayground main drains shall meet the requirements of VGB for main drain outlets
- Ultraviolet Dechloramination and Disinfection System should be plumbed in a way to provide non-turbulent flow to the UV treatment cell. The UV System should be mounted on a uni-strut support frame off of the ground to reduce the potential for corrosion.
- All floor mounted equipment (e.g. pumps) should be mounted on housekeeping pads off of the pool mechanical room floor
**Recommendation**

Due to the construction date and good condition of this facility, it is recommended that minor repairs be made to make the facility compliant with current codes. Two (2) separate chemical rooms with proper HAZMAT signage, ventilation to the building exterior, and proper fire rating in accordance with local fire marshal should be created for the sprayground sanitizer and sprayground pH buffer chemicals. A flow meter needs to be
installed on the sprayground return line. The sprayground should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of sprayground sanitizer and pH buffer. Provide a properly sized commercial pool filtration system that does not exceed 15 GPM/ SQ FT of filter area for a high rate sand type system. Re-plumb the piping to and from the UV System and properly mount it off of the floor. All floor mounted equipment should be mounted off of the floor on housekeeping pads.

1.10 **Drake Springs Family Aquatic Center**

- Pool Slopes:
  - Cannot exceed 1:12 slope to depth of 5’-0” (shallow area)
  - Cannot exceed 1:3 slope to depths greater than 5’-0” (deep area)
- Pools with 1 meter and/or 3 meter diving should meet the minimum depth contour requirements of GLUMR and ANSI. If the pools host NFSHS, US Diving, or any other level of diving competition, they should meet the most conservative requirements of the diving programming that they host.
- Pool Turnover Rate
  - 6 HR Maximum for Competition and Recreation Pools (2-3 HR Recommended for Lazy River and Zero Depth Entry Pools)
- All Pools must have a flow meter with a digital readout displayed in GPM
- The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S
- All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage
- All pools should have an automated pH delivery system
- All pools should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer
- All pools should have a Palin Pooltest 6 kit for manual water chemistry testing
- All pool main drains shall meet the requirements of VGB for main drain outlets
- All pools shall meet the ADA requirements for access (proper ADA wet ramps, pool lifts, ADA handrails for stair entries, etc.)
Recommendation

Due to the construction date and good condition of this facility, it is recommended that minor repairs be made to make the facility compliant with current codes. A primary means of ADA access of either an ADA ramp (with a 1:12 slope, compliant hand rails, and a landing area at water depth of 1’-6”) or a fixed ADA compliant pool lift will need to be provided for each body of water. If a pool perimeter exceeds 300 Linear Feet, then a secondary means of access such as a stair entry with ADA compliant handrails or an
additional primary means of access needs to be added. Two (2) separate chemical rooms with proper HAZMAT signage, ventilation to the building exterior, and proper fire rating in accordance with local fire marshal should be created for the pool sanitizer and pool pH buffer chemicals. A flow meter needs to be installed on each pool return line. Each pool should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer. Feature pumps should be re-plumbed to draw water from a designated VGB compliant main drain system for their respective body of water. Feature pumps drawing from a surge tank could create water balancing issues and hinder the surge tank from operating properly. The Lap Pool floor slopes should not exceed 1:12 slope to depth of 5'-0” (shallow area) and 1:3 slope to depths greater than 5'-0” (deep area). The 1 meter and/or 3 meter diving boards should meet the minimum depth contour requirements of GLUMR and ANSI. If the facility hosts NFSHS, US Diving, or any other level of diving competition, they should meet the most conservative requirements of the diving programming that they host.
Conclusion

The items/issues addressed in this report reflect only the observable conditions during the site visit. It is therefore suggested that the report be amended and/or expanded as necessary by individuals that have been involved with the day-to-day operation of the facility. Their experience and knowledge of the pool's history is vital in preparing a comprehensive appraisal of the facilities shortcomings and specific defects.

The following list summarizes the conditions identified in the report organized by priority level in terms of the overall condition of each facility with the facility in the worst condition listed first and the facility in the best condition listed last. The list does not identify every condition noted in the report.

Facility Repair/Renovation/Replacement Priority Level (Ordered Worst to Best):

1. Spellerberg Park Pools
2. Frank Olson Pools
3. McKennan Park Wading Pool
4. Kuehn Park Swimming Pools
5. Terrace Park Family Aquatic Center
6. Pioneer Park Sprayground
7. Laurel Oak Family Aquatic Center
8. Drake Springs Family Aquatic Center

General Observations and Comments:

- Pool Slopes:
  - Cannot exceed 1:12 slope to depth of 5’-0” (shallow area)
  - Cannot exceed 1:3 slope to depths greater than 5’-0” (deep area)
- Pools with 1 meter and/or 3 meter diving should meet the minimum depth contour requirements of GLUMR and ANSI. If the pools host NFSHS, US Diving, or any other level of diving competition, they should meet the most conservative requirements of the diving programming that they host.
- Pool Turnover Rate
  - 6 HR Maximum for Competition and Recreation Pools (2-3 HR Recommended for Lazy River and Zero Depth Entry Pools)
  - 1 HR Maximum for Wading Pools
- Wading Pools must be on separate system from other pools.
- All pools should have their own respective recirculation system. Comingling of water in a shared surge tank goes against industry standards. Feature pumps drawing from a surge tank could create water balancing issues and hinder the surge tank from operating properly.
• Maximum depth for Wading Pools is 18” (McKennan exceeds this requirement)
• All Pools must have a flow meter with a digital readout displayed in GPM
• High Rate Sand Filtration Systems should not exceed a filtration rate of greater than 15.0 GPM/ Sq. Ft. of filter area (Frank Olson and Pioneer Sprayground)
• All Pools should have an equal distribution of recirculated water through the use of wall or floor return inlets (all wading pools do not meet this)
• The velocity for discharge piping shall not exceed 10 FT/S and the velocity for suction piping shall not exceed 6 FT/S
• All pool chemicals (sanitizer and pH buffer) should be stored in separate sealed and mechanically ventilated chemical rooms with proper HAZMAT signage
• All pools should have an automated pH delivery system
• All pools should have a commercial chemical controller capable of measuring pH, ORP, temperature, and chlorine (ppm). Additionally, chemical controller should be able to control delivery of pool sanitizer and pH buffer
• All pools should have a Palin Pooletest 6 kit for manual water chemistry testing
• All pool main drains shall meet the requirements of VGB for main drain outlets
• All pools shall meet the ADA requirements for access (proper ADA wet ramps, pool lifts, ADA handrails for stair entries, etc.)
• All floor mounted equipment (e.g. pumps) should be mounted on housekeeping pads off of the pool mechanical room floor

The conditions of the pools at Spellerberg, Frank Olson, Kuehn, and McKennan are not unusual for pools this age. As with other pools of similar age, the pools are facing physical obsolescence. Swimming pools are built to satisfy the existing standards at the time of construction or renovation. The department of health standards has changed over the years. The items identified in this report refer to items that do not meet the current South Dakota State Department of Environment and Natural Resources requirements for pools built today. When the pools were built or renovated, the construction was to current code at the time. The items identified as not meeting the current code do not indicate that the city has been operating the pools that are not to code. Pools are required to meet current codes when they are newly constructed or renovated and until such time may be considered to be “grandfathered”. This needs to be confirmed with the local department of health. For instance, the turnover rate when the pools were last renovated was eight hours. Now, the South Dakota State Department of Environment and Natural Resources requires similar type pools to have a turnover rate of six hours. Likewise, the pools were constructed and renovated prior to the ADA (Americans with Disabilities Act) accessibility guidelines.

Thus, the issues do not indicate that the City has been operating the pools in an unsafe manner. The department of health monitors outdoor aquatic facilities during the summer months and reports deficiencies that the owner is required to address at that time. It is also assumed that since these pools are monitored by the local department of health, the pools are considered satisfactory to operate safely.