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# LENEXA AQUATICS STUDY

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July 2019



waters edge



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## Introduction

The City of Lenexa currently operates three outdoor swimming facilities and a recreation center with indoor aquatics. The outdoor facilities are located east of I-435 and the recreation center with indoor aquatics is located just west of I-435. The eastern part of the city, which houses all 3 outdoor pools, is predominately made up of single-family residential neighborhoods and manufacturing zones. This region currently contains approximately 75% of the Lenexa population, which is growing but not as quickly as the central and western segments of the city.

The central and western part of the city is largely made up of agricultural, residential single family and planned residential single-family zones. It is in this area that the overall population is showing rapid growth. There are no public outdoor recreational aquatics facilities west of I-435 and within a 5-mile radius of Lenexa Rec Center.

The overall purpose of this aquatics study is to evaluate and analyze the condition of the existing facilities and determine how they serve the overall community needs. Options can then be presented for the city leadership to consider.

The condition and ability of the aquatics facilities to serve the community vary from one facility to the next, with some facilities being in better condition and better received than others. Overall, the facilities have aged and are in need of improvement. The overall attendance and revenue have decreased over the years such that the aquatics facilities are operating at a significant subsidy.

The current aquatics facilities include:

- Flat Rock Creek Pool – includes outdoor neighborhood pool located in the southeast corner of the city limits (103<sup>rd</sup> St. and Noland Road).
- Indian Trails Aquatic Center - includes a large aquatic center located in a Sar-Ko-Par Trails Park, which is located somewhat central to the eastern third of the city limits.
- Ad Astra Pool – includes a large pool with a competitive focus, located close to I-435 near the northern edge of the city.
- Lenexa Recreation Center – includes a newly constructed recreation center that has a large indoor aquatics center with many offerings for swimming. It is located within Lenexa City Center along 87<sup>th</sup> St., west of I-435.

## Project Objectives

The objective of this study is to provide an assessment of the current conditions of the aquatics programming and facilities, and develop potential strategies to best meet the current and future needs of the City of Lenexa. Specific objectives include:

- Inventory the current aquatics facilities
- Determine current and anticipated demand for aquatics facilities in Lenexa as well as current and future supply to meet demands
- Provide case studies and industry best practices for aquatic facility development and management
- Develop scenarios and recommendations for Lenexa to ensure vibrant and innovative aquatic facilities and management strategies
- Provide Opinions of Cost for proposed capital projects and operations associated with recommended options

During the kick off meeting for the project, members from the Lenexa Parks and Recreation staff met with Waters Edge Aquatic Design to establish the goals for the study. The following goals were identified as important to the study

- Create a comprehensive strategy for aquatics facilities
- Apply a visionary approach for the aquatics facilities, as has been accomplished for other community activities and amenities
- Create a budgetary tool for future planning, including capital expenses as well as operation, maintenance, and replacement costs
- Address dated facilities, particularly Ad Astra Pool and Indian Trails Aquatic Center
- Move closer to self-sufficiency, sustainability, and higher cost recovery for operation

## Executive Summary

The City of Lenexa has recently constructed a new Recreation Center with an indoor aquatic facility and continues to operate three outdoor facilities, some of which are aging. The two largest and most significant outdoor facilities are approximately 20 to 30 years old and in need of significant improvements over the next few years. They are also located within 2 miles of each other. The condition for each of the aquatics facilities is summarized below.

### Flat Rock Creek Pool

Flat Rock Creek received a major reconstruction and renovation in 2012 and is in the best condition of the three. The oldest structure is the leisure pool that was constructed in the 1980's, with the remaining structures being new in 2012. It is a smaller-sized facility that serves as a neighborhood for the southeast portion of Lenexa.

### Indian Trails Aquatic Center

Indian Trails Aquatic Center is the largest and most balanced aquatics facility of the three. It receives the greatest attendance, receiving approximately 54% of the total outdoor pool visits in a summer. Much of the facility was constructed in 1998, but a significant portion of the pool structure and pool piping were constructed in 1976. These structures and systems will need to be reconstructed in the near future.

### Ad Astra Pool

Ad Astra was constructed in 1988 making it approximately 30 years old. It is a larger facility and is nearly the same size as Indian Trails Aquatic Center, but lacks the recreational features that are attractive to present day visitors. As such, it receives the smallest amount of attendance of the three facilities, along with the lowest amount of revenue to offset its expenses. The pool structure, piping, and pool deck are in poor condition and are in need of significant reconstruction.

### Lenexa Rec Center

The Lenexa Rec Center is a new facility that is relatively centrally located and accessible. The indoor facility includes a wide range of aquatic center amenities and programs for the community. As the facility is new, its physical condition is very good. The facility should provide the needs of the community for decades to come.

Operationally, the outdoor aquatics facilities collectively operate at relatively low cost recovery, with just above 60% of revenue to offset operational expenses. Individually, Ad Astra receives the lowest attendance at 21% of the total visits and the lowest cost recovery at 43% (averaged over the past four years). Indian Trails Aquatic Center receives the highest attendance at 54% of the total visits and a cost recovery of 66% (averaged over the past four years). Flat Rock Creek Pool falls in between at an attendance of 25% of total visits and 49% cost recovery. We believe the low cost recovery is due to two primary factors:

1. Low attendance and subsequent low revenue resulting from a lack interest by the community. This can be attributed to visitors not interested in using aquatic centers that are lacking modern amenities and have remained relatively the same for a significant period of time.

2. High expenses from having to operate large facilities with a large water surface area. The ratio of water surface area per capita is higher for the City of Lenexa than most cities in the Kansas City metro area.

Given these conditions, and the significant cost to address maintenance concerns, we recommend closing Ad Astra Pool to improve the overall financial conditions for the outdoor aquatic facilities, and allow resources to be focused on the remaining facilities. Closing Ad Astra for the 2020 season can be accomplished over one year, allowing time to implement the plan and transition operations. Ad Astra Pool is appropriate given its close proximity with Indian Trails Aquatic Center, along with its poor operating conditions and physical condition. Indian Trails Aquatic Center and Flat Rock Creek Pool are in a position to geographically serve the community and can accommodate the existing outdoor aquatics programs.

The location of the existing outdoor facilities is within the eastern third of the city's geographic limits where the population is more dense and stable. The significant growth within the city is located in the central and western portions of the city limits. While the recreation center with indoor swimming is centrally located, the outdoor aquatics facilities are not located such that they serve the westward population growth.

Various options were studied to improve the current aquatics facilities for Lenexa and extend service to the central and western areas, including:

- **Neighborhood Approach:** includes adding a fourth outdoor facility in the western region, while maintaining the existing three facilities.
- **Regional Approach<sup>1</sup>:** includes replacing either Indian Trails Aquatic Center or Ad Astra Pool with a new regional facility located west. The resulting aquatics facilities would include Flat Rock Creek Pool plus two regional facilities, one to serve the east and one to serve the west.
- **Central Water Park Approach<sup>1</sup>:** includes construction of a new centrally-located water park that would serve the bulk of the city population, with Flat Rock Creek Pool serving its immediate neighborhood in the southeast corner of the city.

We believe the regional approach and the central water park approach are the two more feasible options, as they would result in a better overall cost recovery and financial

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<sup>1</sup> Amenities such as splash parks would provide beneficial additions to this strategy. See Supplemental Amenities Section for recommendations on splash park additions.



sustainability for operation. The neighborhood option would result in more facilities, which would increase the operating subsidy and make it more difficult to operate.

Of the two more feasible options, we believe that the central water park approach provides the best opportunity for aquatics programming and operational sustainability. This approach effectively replaces both Indian Trails Aquatic Center and Ad Astra Pool with a new community water park that provides for the core programs of swim lessons, aquatic fitness, competitive swimming, and open recreational swimming. In particular, constructing a single facility would allow for more amenities to be constructed at a larger scale, making the facility more attractive for higher attendance and revenue. In addition, the single-larger facility will be more efficient for operations which will help to keep expenses to a minimum.

Selecting a location for the new central water park is important to maximize awareness and access which will result in higher attendance and revenue for the facility. Locations near I-435 interchanges, and with reasonable direct access and visibility from the highway, are optimum.

As a part of a comprehensive approach to the city's aquatic needs, splash parks would provide access to water recreation for those who may not frequently attend a water park for various reasons, including proximity and availability of transportation. We recommend that the following be considered.

- A splash park in the eastern portion of the city, which would provide access to the more densely populated portions of the city,
- A splash park in the western portion of the city, which would provide for those who are in more remote locations away from the water park.



# Population and Market Analysis

## Population Analysis

### Population Growth\*

\*Statistical analysis is largely based upon 2010 and 2000 census data. The next official census is scheduled for 2020. Based off the 2010 U.S. Census. Population percent change (% Pop. Change) is from 2000 to 2010.

The population in Lenexa continues to grow. In 2000, the population was 40,238, and grew to 48,190 in 2010. It is estimated that the current population as of 2018 was 55,344. This is a 33% growth in population in less than 20 years.

There is considerable population growth within a 2 and 5-mile radius of the western comparison locations (Lenexa Rec Center and Black Hoof Park) and minimal population growth at the eastern locations, Lenexa Public Safety Complex and Flat Rock Creek Pool. A population decrease occurred for Lenexa Public Safety Complex at the 2-mile radius. See Table 1.

Table 1

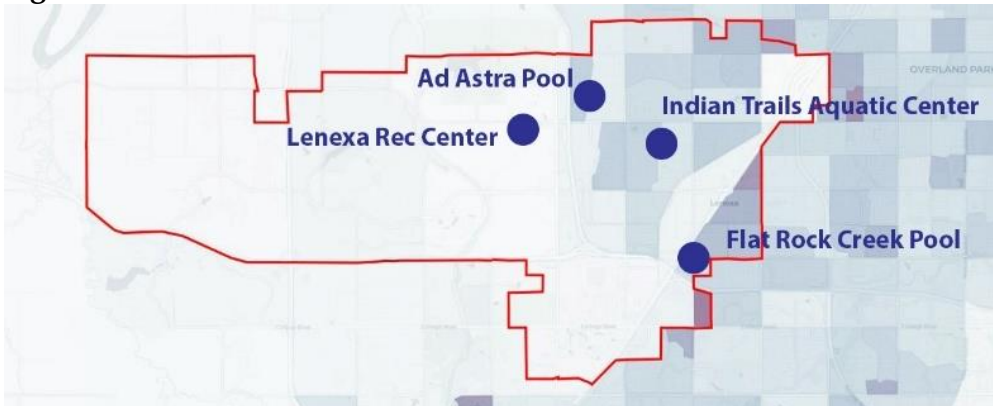
| Total Population Table*      | 2-Mile Radius |          | 5-Mile Radius |          | 10-Mile Radius |          | 15-Mile Radius |          |
|------------------------------|---------------|----------|---------------|----------|----------------|----------|----------------|----------|
|                              | Total         | % Change | Total         | % Change | Total          | % Change | Total          | % Change |
| Lenexa Rec Center            | 19,803        | 22.0%    | 148,324       | 18.9%    | 528,902        | 14.7%    | 906,091        | 9.4%     |
| Black Hoof Park              | 8,491         | 286.8%   | 67,593        | 76.5%    | 391,452        | 18.4%    | 776,688        | 14.1%    |
| Lenexa Public Safety Complex | 47,936        | -.7%     | 205,946       | 2.7%     | 667,397        | 10.5%    | 1,024,239      | 5.9%     |
| Flat Rock Creek Pool         | 33,457        | 0.9%     | 218,366       | 9.0%     | 607,604        | 14.5%    | 994,464        | 7.6%     |

### Population Density and Breakdown\*

\*Maps provided by [www.city-data.com](http://www.city-data.com).

The population density of the city is varied, with heavier densities towards the east. The following graphs show the population density per square mile via color code relative to the current outdoor pool locations; darker colors demonstrate a higher population density. See Figure 1.

Figure 1



### Projected Growth and Population Density

City staff provided data regarding current population along with projected growth over the next 20 plus years, extending out to 2040. See Table 2.

Table 2 (projected population growth by city staff)

|  | Western Lenexa | Central Lenexa | Eastern Lenexa | Total         |
|--|----------------|----------------|----------------|---------------|
| <b>Area Size (sq. mi.)</b>             | 7.6            | 12.1           | 14.7           | <b>34.4</b>   |
| <b>2018 Population</b>                 | 3,644          | 14,799         | 36,901         | <b>55,344</b> |
| <b>2018 Density (sq. mi.)</b>          | 478            | 1,227          | 2,512          | <b>1,610</b>  |
| <b>2018 Percent Total Pop.</b>         | 6.6%           | 26.7%          | 66.7%          | <b>100.0%</b> |
| <b>2040 Population (est.)</b>          | 19,141         | 30,295         | 36,901         | <b>86,337</b> |
| <b>2040 Density (sq. mi.)</b>          | 2,512          | 2,512          | 2,512          | <b>2,512</b>  |
| <b>2040 Percent Total Pop.</b>         | 22.2%          | 35.1%          | 42.7%          | <b>100.0%</b> |
| <b>2018-2040 Population Growth (#)</b> | 15,497         | 15,496         | 0              | <b>30,993</b> |
| <b>2018-2040 Population Growth (%)</b> | 425%           | 105%           | 0%             | <b>56%</b>    |

This table projects rapid growth in the central and western portions over the next 20 years, with the central and western populations increasing in density to match that of the eastern population. The projected population is approximately 86,000 in 2040.

### Demographic Breakdown

For each age group within a 5-mile radius, the most western comparison location of Black Hoof Park has the highest percentage of individuals 17 years of age and under in each age category. The eastern locations have the highest percentage of individuals in

each age category 18 years of age and over. Per the 2010 U.S. Census, the average median age in the City of Lenexa is 36.7. *See Table 3.*

**Table 3**

| <b>5-Mile Radius</b>         | <b>9 Years &amp; Under</b> | <b>10 - 17 Years</b> | <b>18 - 54 Years</b> | <b>55 - 64 Years</b> | <b>65+ Years</b> |
|------------------------------|----------------------------|----------------------|----------------------|----------------------|------------------|
| Lenexa City Hall             | 14.3%                      | 10.7%                | 51.8%                | 12.2%                | 10.9%            |
| Black Hoof Park              | 17.2%                      | 12.2%                | 51.4%                | 11.8%                | 7.4%             |
| Lenexa Public Safety Complex | 12.1%                      | 9.6%                 | 51.3%                | 13.2%                | 13.6%            |
| Flat Rock Creek Pool         | 13.2%                      | 10.7%                | 52.6%                | 12.1%                | 11.4%            |

## Market Analysis

### Overall City Maps & Planning\*

\*Maps used from <https://gis.lenexa.com/mapsandapps/>.

The City of Lenexa is made up of a variety of property zones. Of note, as shown on the zone maps, I-435 is a clear divider line of the eastern and western portions of the city, showing a distinct pattern of residential, commercial and manufacturing zones, each with their concentration in particular areas within the city.

Of the city’s four aquatic facilities, 3 of the locations are within the same approximate 2-mile radius: Ad Astra Pool, Indian Trails Aquatic Center and Lenexa Rec Center. *See Figure 2.*

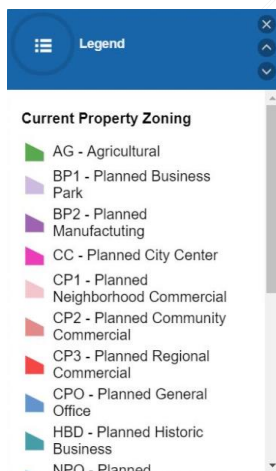
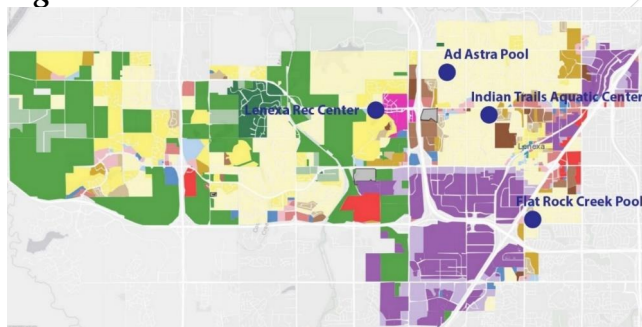
Figure 2



### City Zone Maps

The following map demonstrates the relationship between the city's existing aquatic facility locations and the type of development surrounding them. Ad Astra Pool and Indian Trails Aquatic Center are each surrounded primarily by single family residential neighborhoods. Flat Rock Creek Pool is bound to the west by I-35 with residential neighborhoods near and to the east. Much of the city's center and west of the city limits is undeveloped and currently zoned residential or agricultural. See Figure 3.

Figure 3



### Service Area

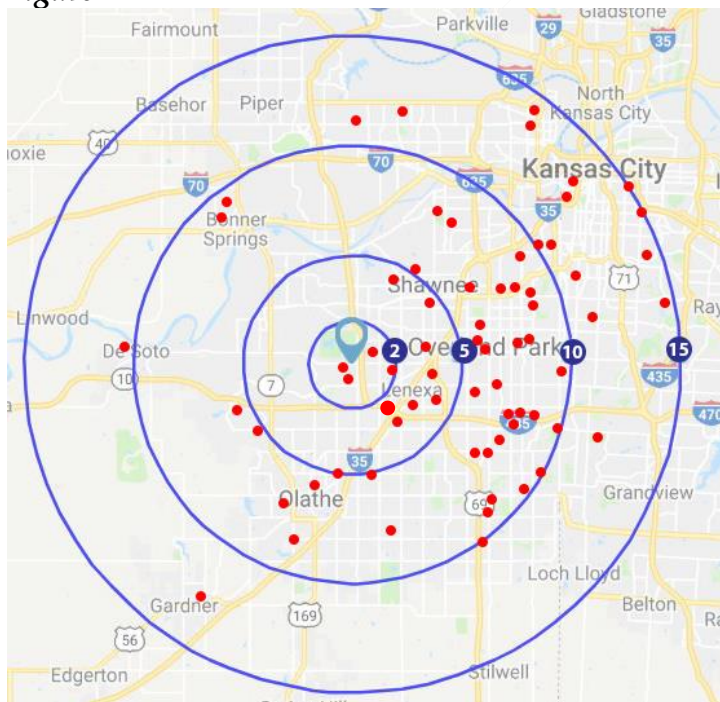
In more populated metro areas, a 15 mile radius is often considered a maximum draw for substantial community-owned water parks, with the higher percentage draw from the 5 mile radius. The aquatics market in a 15-mile radius is substantial with a variety of facilities ranging from public outdoor and indoor pools, private indoor and outdoor pools, and splash parks. Including the city owned pools, there are 5 aquatic facilities with a 2-mile radius of Lenexa Rec Center and 9 aquatic facilities within a 5-mile radius, with a total of 69 aquatic facilities within a 15-mile radius. See Table 4 and Figure 4.

**Table 4**

| Complete Market Facilities* | Within 2 Miles |         | 2 to 5 Miles |         | 5 to 10 Miles |         | 10 to 15 Miles |         | Total     |
|-----------------------------|----------------|---------|--------------|---------|---------------|---------|----------------|---------|-----------|
|                             | Indoor         | Outdoor | Indoor       | Outdoor | Indoor        | Outdoor | Indoor         | Outdoor |           |
| Public                      | 2.0            | 2.0     | 1.0          | 4.0     | 3.0           | 15.0    | 1.0            | 6.5     | 34.5      |
| Private                     | 0.5            | 0.5     | 4.0          | 0.0     | 1.5           | 6.5     | 5.5            | 0.5     | 19        |
| Spray Park                  | 0.0            | 0.0     | 0.0          | 0.0     | 0.0           | 2.0     | 0.0            | 3.5     | 5.5       |
| <b>Total:</b>               | 2.5            | 2.5     | 5.0          | 4.0     | 4.5           | 23.5    | 6.5            | 10.5    |           |
| <b>Total Summary:</b>       | <b>5</b>       |         | <b>9</b>     |         | <b>28</b>     |         | <b>17</b>      |         | <b>59</b> |

\*This does not include pools located within schools; however, the new SMSD competitive aquatic facility is included. Categories listed with a .5 value indicate one facility has multiple pools, such as an indoor and outdoor pool or an outdoor pool and a splash park.

**Figure 4**





The aquatics market within the same 15-mile radius changes when considering only those facilities that are both recreational in nature and outdoors. To understand the types of facilities in this category, designations of Waterpark or Neighborhood were assessed. Waterpark includes facilities that have multiple bodies of water, attractions and an element unique to their site; Neighborhood includes facilities that are smaller with less amenities. Including the city owned pools, there are 3 aquatic facilities with a 2-mile radius of Lenexa City Hall and 3 aquatic facilities within a 5-mile radius, with a total of 24 aquatic facilities within a 15-mile radius. Although large in size, Indian Trails Aquatic Center and Ad Astra Pool were both counted as neighborhood facilities due to their age and lack of modern water park features. See Tables 5 and 6, and Figure 5.

**Table 5**

| Outdoor + Recreation Focus Market Facilities* | 2 Miles  | 2 to 5 Miles | 5 to 10 Miles | 10 to 15 Miles | Total     |
|---|----------|--------------|---------------|----------------|-----------|
| Waterpark                                     | 1        | 1            | 4             | 1              | 7         |
| Neighborhood                                  | 2        | 2            | 12            | 1              | 17        |
| <b>Total:</b>                                 | <b>3</b> | <b>3</b>     | <b>16</b>     | <b>2</b>       | <b>24</b> |

*\*This includes the Lenexa Rec Center, but no other indoor facility; this does not include the new SMSD competitive aquatic facility.*

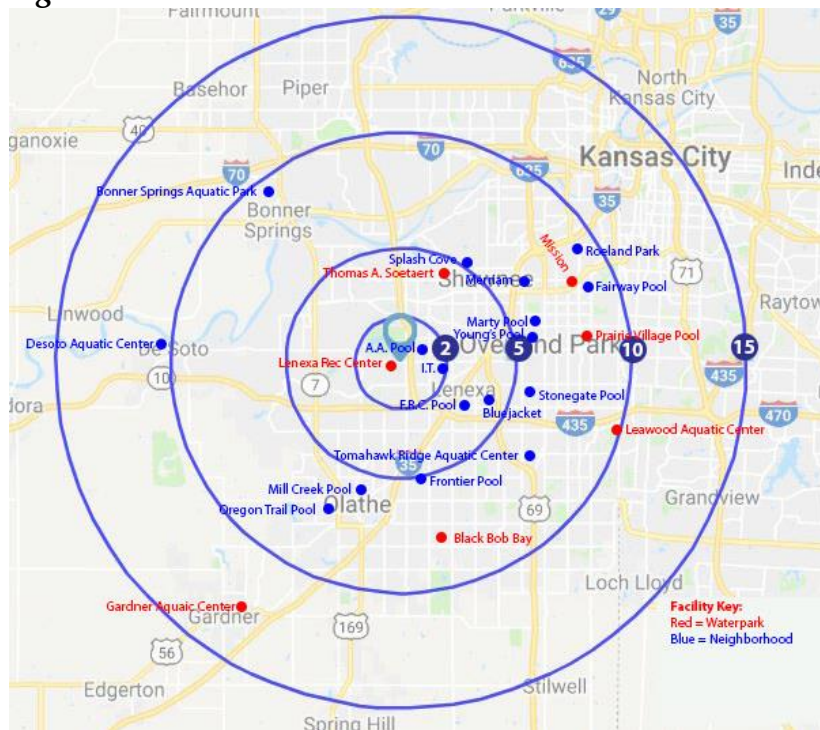
**Table 6**

| Outdoor + Recreation Focus Market Facilities* | 2 Miles   |              | 2 to 5 Miles |              | 5 to 10 Miles |              | 10 to 15 Miles |              | Total     |
|---|-----------|--------------|--------------|--------------|---------------|--------------|----------------|--------------|-----------|
|   | Waterpark | Neighborhood | Waterpark    | Neighborhood | Waterpark     | Neighborhood | Waterpark      | Neighborhood |           |
| East of 435                                   | 0         | 2            | 1            | 2            | 4             | 9            | 0              | 0            | 18        |
| West of 435                                   | 1         | 0            | 0            | 0            | 0             | 3            | 1              | 1            | 6         |
| <b>Total:</b>                                 | <b>1</b>  | <b>2</b>     | <b>1</b>     | <b>2</b>     | <b>4</b>      | <b>12</b>    | <b>1</b>       | <b>1</b>     |           |
| <b>Total Summary:</b>                         | <b>3</b>  |              | <b>3</b>     |              | <b>16</b>     |              | <b>2</b>       |              | <b>24</b> |

*\*This includes the Lenexa Rec Center, but no other indoor facility; this does not include the new SMSD competitive aquatic facility.*



Figure 5



Of the concentration of waterparks and pools, 75% are located east of Interstate I-435- leaving few facilities west of this. Aquatic centers of significant size west of the I-435 line include the following:

- Bonner Springs Aquatic Park is a modest-sized aquatic center located approximately 11 miles north of the Lenexa city limits
- De Soto Aquatics Center is a modest-sized aquatics facility located 6 miles west of the western edge of the Lenexa city limits, or 11 miles from the geographic center of Lenexa.
- Olathe: Two of city’s four aquatic centers are located west of the I-435 boundary. The two include Oregon Trail Pool and Mill Creek Pool- each of which are modest-sized aquatic centers and are aging.
- Gardner Aquatic Center includes a large municipal water park, but is located significantly south of the Lenexa area.

This leaves a large area immediately surrounding the central and western portions of Lenexa without a major aquatic center. It is in this same area that that the population is showing the most rapid growth with 25-30% of the population being under the age of 18 years.

### Home Owners Association Pools

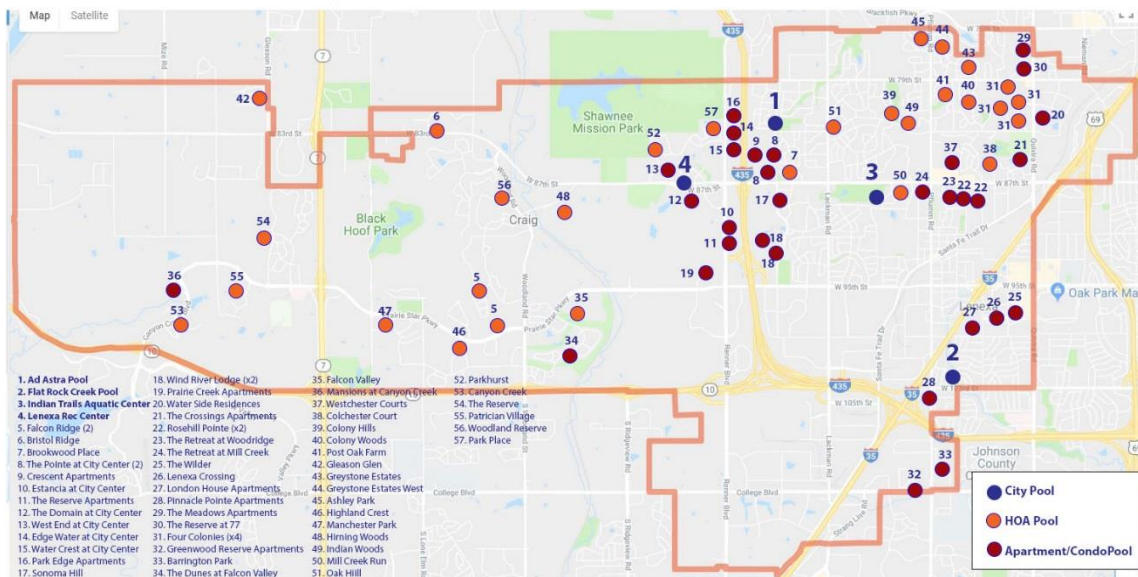
The City of Lenexa has approximately 53 different communities that offer a total of 60 pools as a part of an HOA or rental complex. This number is up 24% from 2012, according to the Parks, Recreation, and Open Space Comprehensive Plan Community Outdoor Pool analysis. A more detailed HOA Pools can be found in the Appendix, Home Owners Association Pools.

**Table 7**

| Location                   | Number of Pools | % of Total | % Change from 2012 |
|----------------------------|-----------------|------------|--------------------|
| East of I-35               | 6               | 10%        | +33%               |
| East of I-435/West of I-35 | 30              | 50%        | + 13%              |
| West of I-435/East of K7   | 19              | 32%        | + 32%              |
| West of K7                 | 5               | 8%         | + 60%              |

It is estimated that approximately 80% of the city’s population reside in housing with access to an HOA affiliated pool. Additionally, the total season attendance for the city operated pool facilities equals approximately 83% of the total city population. This suggests that although there is access to HOA pools, the community utilizes the outdoor pools for those elements that are not available via their HOA pool. The swimming pools operated by the city offer amenities and programs at a scale that provides for a broad range of the population demographics that HOA pools do not. These typically include large-scale amenities such as- diving and water slides, as well as breadth of fitness and learn to swim programs. While there are a number of HOA pools in the city, given their limited scope, they do not provide comprehensive pool opportunities in a life-guarded environment for a wide age range of users. Figure 6 below shows the Lenexa outdoor aquatics facilities on a map with HOA pools.

**Figure 6**



## Existing Facilities Condition

Given the newness and acceptance of the indoor aquatic center by the community, the focus for studying the existing conditions and consideration for improvements is centered on the outdoor facilities. Operational data for the outdoor pools was collected for the past four years, including attendance, expenses and revenue. See the Table 7 below for analysis of the overall performance of the Lenexa outdoor pools.

**Table 7**  
**Financial Performance Indicators- (Last 4 Years)**

| Year                          | Attendance    | Revenue          | Revenue                      |                  | Net Revenue/<br>Expense | Expenses<br>per WSA <sup>2</sup> | Cost<br>Recovery <sup>3</sup> |
|-------------------------------|---------------|------------------|------------------------------|------------------|-------------------------|----------------------------------|-------------------------------|
|                               |               |                  | per<br>attendee <sup>1</sup> | Expenses         |                         |                                  |                               |
| 2018                          | 44,098        | \$287,051        | \$6.51                       | \$474,475        | \$ (187,424)            | \$10.93                          | 60%                           |
| 2017                          | 46,657        | \$295,094        | \$6.32                       | \$461,136        | \$ (166,042)            | \$10.63                          | 64%                           |
| 2016                          | 47,501        | \$266,274        | \$5.61                       | \$436,740        | \$ (170,466)            | \$10.06                          | 61%                           |
| 2015                          | 41,254        | \$277,647        | \$6.73                       | \$447,438        | \$ (169,791)            | \$10.31                          | 62%                           |
| <b>Last 4yrs</b>              | <b>44,878</b> | <b>\$281,517</b> | <b>\$6.27</b>                | <b>\$454,947</b> | <b>\$ (173,431)</b>     | <b>\$10.48</b>                   | <b>62%</b>                    |
| <i>Last 2 yrs<sup>4</sup></i> | <i>45,378</i> | <i>\$291,073</i> | <i>\$6.41</i>                | <i>\$467,806</i> | <i>\$ (176,733)</i>     | <i>\$10.78</i>                   | <i>62%</i>                    |

*\*Foot Notes:*

1. Revenue per Attendee = Annual Revenue / Attendance
2. Expenses per WSA = Annual Expenses / Water Surface Area
3. Cost Recovery = Revenue / Expenses
4. Expenses have increased for years 2017 and 2018 (and forward) with the addition of aquatics programming staff.

Cost recovery is a key criterion; the goal of most aquatics facilities is to cover as much of the expenses as possible with revenue generated from season passes, daily gate fees, concessions, and programs. Typical cost recovery for modern outdoor aquatic centers ranges from 75% to 100%, depending upon the character of the aquatic center and its market conditions (such as population base, community demographics, and market competitors).

The aggregate of Lenexa's outdoor facilities results in a low cost recovery at just above 60% for the past few years. Two key factors are likely contributing to the lower cost recovery.

- **Low attendance.** Given the city's current population base of over 50,000, we believe the attendance for the outdoor season could be greater by at least 20% or more. The outdoor aquatics facilities have remained relatively the same over the past 20 years, which is likely resulting in waning interest from the community to attend the outdoor aquatic centers. Neighboring communities have constructed

more modern aquatic centers and are seemingly benefiting by receiving higher participation.

- High Expenses - due to large facilities.** The overall expenses are high, particularly relative to the attendance that is experienced each season. However, the high expenses don't appear to be due to inefficient operations. When analyzing the expenses per water surface area, the ratio is just below \$11 per square foot of water. In our experience, ratios less than \$15 per square foot of water suggest efficiently operated and staffed facilities with similar size and features.

The high expense appears to be a result of having large facilities and water surface to operate relative to the attendance and population base that supports that attendance. In analyzing this, we have surveyed a number of Kansas City metro area facilities to compare the water surface area provided per capita. The results of the survey are shown below in Table 8.

**Table 8**  
**Comparison of Water Surface Area per Capita**  
**Kansas City Metro Area Outdoor Aquatic Facilities**

| <b>City</b>         | <b>No. of Pools</b> | <b>Water Area SF</b> | <b>Est. Population</b> | <b>Water (sf) per capita</b> |
|---------------------|---------------------|----------------------|------------------------|------------------------------|
| Independence, MO    | 1                   | 23,750               | 117,000                | 0.20                         |
| Lee's Summit, MO    | 1                   | 25,500               | 96,076                 | 0.27                         |
| Overland Park, KS   | 5                   | 53,780               | 188,966                | 0.28                         |
| Olathe, KS          | 4                   | 47,304               | 135,473                | 0.35                         |
| Gladstone, MO       | 1                   | 10,800               | 27,114                 | 0.40                         |
| Shawnee, KS         | 2                   | 31,630               | 65,194                 | 0.49                         |
| Leawood, KS         | 1                   | 16,800               | 34,565                 | 0.49                         |
| <b>Lenexa, KS</b>   | <b>3</b>            | <b>43,400</b>        | <b>55,344</b>          | <b>0.78</b>                  |
| Gardner, KS         | 1                   | 21,500               | 21,110                 | 1.02                         |
| Prairie Village, KS | 1                   | 29,180               | 21,805                 | 1.34                         |
| <b>Average</b>      |                     |                      |                        | <b>0.56</b>                  |

*\*Includes an estimate of 6,000 s.f. for wave pool addition to Lee's Summit facility (summer 2020)*

As the water surface per capita increases the ability to achieve a higher cost recovery becomes more difficult. The average of the cities surveyed is a ratio of 0.56 s.f. per capita. At a total water surface area of 43,400 s.f. of outdoor water surface and a population base of 55,344, the City of Lenexa sits at a ratio of 0.78 s.f. of water surface per capita.



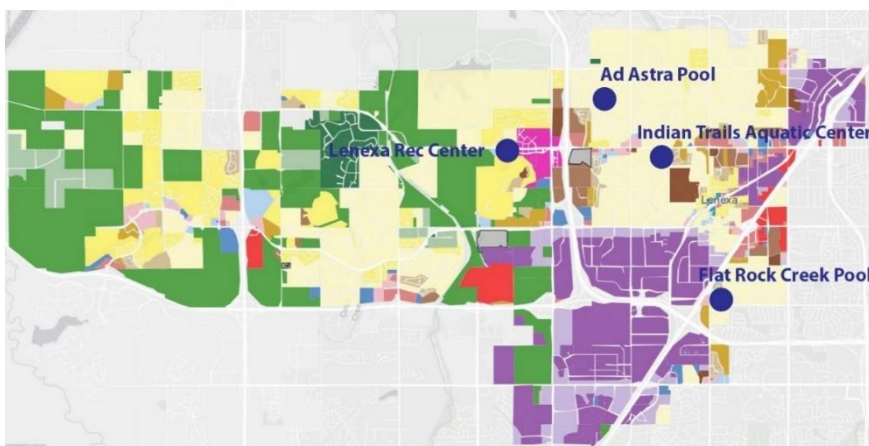
If the City of Lenexa provided facilities with an average amount of water surface per capita (average of 0.56 s.f. per capita of cities surveyed), the water surface area would be 29,600 s.f. – which would be a reduction of 13,800 s.f. of water.

### Current Facility Locations and Geographic Service

The four existing aquatics facilities are heavily weighted toward the eastern one-third of Lenexa’s geographic city limits. This is primarily due to the population base originating in the eastern portion of the current geographic area, with expansion and growth to the west. The Lenexa Rec Center is the most recently constructed and centrally located facility. This is beneficial as it is the single indoor public swimming facility whose program is intended to serve the entire Lenexa population. A breakdown of the geographic location and service is as follows, along with a map shown in Figure 7.

- Flat Rock Creek is located in the southeast corner of the city limits and is bound to the west by I-35. The facility is believed to serve the Lenexa neighborhoods east of I-35, along with some adjacent Overland Park residents.
- Indian Trails Aquatic Center is located centrally within the populated eastern one-third of the city. It resides in a large park that regionally serves a primary residential portion of the city.
- Ad Astra Pool is also located within the eastern one-third of the geographic boundary, but in the northern portion. While the facility is surrounded by residential area, the character of the pool facility is focused more on competitive swimming and tends to serve the competitive swimming use more than it does general recreation.
- The Lenexa Rec Center is more centrally located along 87<sup>th</sup> St., west of I-435. As the single indoor pool operated by the city, it is intended to be a regional city-wide facility that provides the indoor aquatics programming.

*Figure 7*



### Conditions for Each Facility

In order to assess the operating conditions for each pool individually, we considered the expenses and attendance at each facility. We then allocated a portion of the total revenue to each facility by proportioning the season pass revenue to each facility based upon its percentage of overall attendance. This allows us to estimate the revenue for each facility and compare the financial performance of each facility independently. The result of this exercise is shared in Table 9, which considers the average statistics over the past four years of operation.

**Table 9**  
**Financial Performance Breakdown Per Pool**  
 (excluding dedicated programs, i.e. swim team and fitness classes, etc...)

| Water Surface            |           |            |                    | 43,400 square feet |                    |                       |                      |           |             |               |               |
|--------------------------|-----------|------------|--------------------|--------------------|--------------------|-----------------------|----------------------|-----------|-------------|---------------|---------------|
|                          |           | 2015       | 2016               | 2017               | 2018               | Ave.                  |                      |           |             |               |               |
| Total Season Memberships |           | \$113,546  | \$115,489          | \$118,187          | \$104,781          | \$113,001             |                      |           |             |               |               |
| Pool Facility            | WSA, s.f. | Attendance | % total attendance | Direct Revenue     | % Pool Memberships | Approx. Total Revenue | Revenue per attendee | Expenses  | Net Revenue | Expenses /WSA | Cost Recovery |
| Ad Astra                 | 17,200    | 9,201      | 21%                | \$28,981           | \$23,335           | \$52,315              | \$5.69               | \$121,462 | \$ (69,147) | \$7.06        | 43%           |
| Flat Rock                | 7,100     | 11,102     | 25%                | \$21,994           | \$28,155           | \$50,149              | \$4.52               | \$102,808 | \$ (52,659) | \$14.48       | 49%           |
| Indian Trails            | 19,100    | 24,254     | 54%                | \$64,948           | \$61,510           | \$126,458             | \$5.21               | \$190,619 | \$ (64,161) | \$9.98        | 66%           |
|                          |           | 43,400     | 44,558             | \$115,922          | \$113,001          |                       |                      |           |             |               |               |

The following includes notes from analyzing the performance of each individual facility.

- Indian Trails achieves the highest cost recovery at 66%, while Flat Rock is second at 49% and Astra third at 43%.
- Indian Trails receives a majority of the attendance at 54% of the total. Flat Rock Creek follows at 25% while Ad Astra is third with 21%.
- A significant portion of Ad Astra’s attendance includes day cares or programs that the Lenexa Parks and Recreation staff assigns and schedules to the facility. Without this assignment, the attendance at Ad Astra would be significantly less.

An assessment of each individual outdoor facilities follows.

### **Flat Rock Creek Pool**

Flat Rock Creek Pool includes an outdoor neighborhood pool located in the southeast corner of the city limits (103<sup>rd</sup> St. and Noland Road). It was originally built in 1970's, and was expanded in the late 1980's to include a zero-depth entry leisure pool, and again renovated in 2012. A summary of the facility's history is as follows.

#### **Construction History:**

- Original Construction: 1970's
- Expansion: Late 1980's (to include a zero-depth leisure pool)
- Renovation: 2012 - includes new diving pool and bathhouse. Oldest structure that remains includes the leisure pool from late 1980's

#### **Current Features:**

- Water Surface Area = of 7,100 s.f.
- Zero-depth entry
- One-meter diving
- Climbing wall
- Lap lanes: 3 – 25-yard lanes with depths of 4'-0" to 4'-6" deep



#### **Physical Condition:**

As this facility received a major reconstruction in 2012, it is in good condition. It experiences typical maintenance and upkeep for an aquatic center that is relatively new.

## Core Programs and Functional Assessment

The Flat Rock Creek Pool was designed and constructed as a neighborhood pool for the southeast corner of the Lenexa. As such, it appropriately serves its purpose providing an opportunity for outdoor recreation and programs for the adjacent community. It currently provides a limited amount of programs for the community as the other facilities currently facilitate most programs due to their size and more central location. The core programs currently offered at Flat Rock Creek Pool include

- Open Recreation Swimming
- Host of daycares

## Operational Performance:

The average operational performance for Flat Rock Creek Pool is shown in Table 10 below for the past four years, as compared to the other two aquatic facilities.

**Table 10**

### Financial Performance Breakdown Per Pool

(excluding dedicated programs, i.e. swim team and fitness classes, etc...)

| Water Surface            |              | 43,400 square feet |                    |                 |                    |                       |                      |                  |                    |                |               |  |
|--------------------------|--------------|--------------------|--------------------|-----------------|--------------------|-----------------------|----------------------|------------------|--------------------|----------------|---------------|--|
| Total Season Memberships |              | 2015               | 2016               | 2017            | 2018               | Ave.                  |                      |                  |                    |                |               |  |
|                          |              | \$113,546          | \$115,489          | \$118,187       | \$104,781          | \$113,001             |                      |                  |                    |                |               |  |
| Pool Facility            | WSA, s.f.    | Attendance         | % total attendance | Direct Revenue  | % Pool Memberships | Approx. Total Revenue | Revenue per attendee | Expenses         | Net Revenue        | Expenses /WSA  | Cost Recovery |  |
| Ad Astra                 | 17,200       | 9,201              | 21%                | \$28,981        | \$23,335           | \$52,315              | \$5.69               | \$121,462        | \$ (69,147)        | \$7.06         | 43%           |  |
| <b>Flat Rock</b>         | <b>7,100</b> | <b>11,102</b>      | <b>25%</b>         | <b>\$21,994</b> | <b>\$28,155</b>    | <b>\$50,149</b>       | <b>\$4.52</b>        | <b>\$102,808</b> | <b>\$ (52,659)</b> | <b>\$14.48</b> | <b>49%</b>    |  |
| Indian Trails            | 19,100       | 24,254             | 54%                | \$64,948        | \$61,510           | \$126,458             | \$5.21               | \$190,619        | \$ (64,161)        | \$9.98         | 66%           |  |
|                          |              | 43,400             | 44,558             |                 | \$115,922          | \$113,001             |                      |                  |                    |                |               |  |

Flat Rock Creek Pool's operations performance:

- Flat Rock operates primarily as a neighborhood facility and receives approximately 25% of the total attendance.
- While it is the smallest of the facilities and includes some modern aquatic center features, its expenses per water surface area is nearly \$15/ s.f.. This is higher than the other two facilities, but is normal for a smaller aquatic center with more modern features and multiple pool arrangements. It does not experience the operational efficiencies that a larger facility would.
- The cost recovery is low at 49%, and the revenue per attendee is also low at \$4.52.

## Potential Improvements

Given that Flat Rock Creek Pool was recently renovated, it does not currently require significant improvements to extend the life of the facility over the next 20 years. Any initial improvements made could be in effort to preserve the existing structures and systems, such as installing a roof structure over the current filters and pumps.



### **Indian Trails Aquatic Center**

Indian Trails Aquatic Center includes a large aquatic center located in the Sar-Ko-Par Trails Park, which is located fairly central to the eastern third of the more populated portion of the city. The facility was originally constructed in the late 1970's and received the latest major renovation in the late 1990's. Even though the amenities are dated, the Indian Trails Aquatic Center provides the most comprehensive aquatic center for the city.

#### **Construction History:**

- Original Construction: 1976
- Renovation: 1998 - includes new buildings, pool mechanical systems, water slides, and zero-depth entry. Lap area and deep water area, along with some below-grade piping remains the original 1976 construction.

#### **Current Features:**

- Water Surface Area of 19,100 s.f.
- Zero-depth entry, with spray features
- Splash pad
- Deep water
- Pair of large water slides into separate plunge pool.
- Lap lanes: 8 – 50 meter lanes with depths of 3'-6" to 5'-0" deep



### **Physical Condition:**

The physical condition of the structures and systems vary given that the facility contains structures and systems that were constructed either in 1976 or 1998. The oldest structures and systems are those of most concern, which include

- The lap lanes and deep area pool structures, which are still original from the initial construction in 1976. The pool structure is covered with a pool plaster coating. Areas in the plaster coated are often spalling in patches.
- Buried piping around and beneath the lap lanes and deep area of the pool is also original construction. The piping material is not known, but we assume that it is near the end given its age of over 40 years.
- The water slides were installed in 1998. The fiberglass gel coating has deteriorated, and structures are showing wear from their age. Significant repair is needed for the slides.
- The filters and pool mechanical systems are approximately 20 years old and are approaching the end of useful life. The filter tanks are coated steel pressure vessels. Given their age, we expect that they include an epoxy paint interior coating which has likely worn through and now rusting through the thickness of the steel side wall. We anticipate that they would need to be replaced in approximately 5 to 10 years.

These structures will be in need of significant improvements in the near future.

Structures that are newer and in fair condition include

- The buildings and shade structures including the bathhouse, concessions, staff building, and filter building. Although minor improvements will need to be applied to the buildings and shade trellis structures. The building walls are getting some moisture in the top causing efflorescence down the side of the walls. The wood on top of the trellis structures will need to be replaced or updated.
- Zero-depth entry pool structure
- Pool deck

### **Core Programs and Functional Assessment**

The Indian Trails Aquatic Center provides the widest range of amenities and opportunities for the community. As such it experiences the greatest amount of visitors through the summer.

The core programs currently offered at Indian Trails Aquatic Center include

- Open Recreation Swimming

- Competitive Swimming, which includes daily swim practice Monday through Saturday morning; and occasional swim meets
- Fitness classes (Glide Fit, Glide Fit Yoga, Aerobics)
- Swim Lessons (mornings Monday through Thursday, and on Saturday)
- Host day camps and large day cares

Overall, the facility is located in an inviting park setting and is viewed positively by the guests. While it is one of the more modern of the city’s outdoor aquatics facilities, it is becoming dated as it has remained essentially the same for the past 20 years. It is currently missing fun features that would make the facility more inviting.

An addition functional issue includes a lack of support space for the lifeguard staff. The administrative area for the facility is located in a stand-alone admissions and staff building, which is two stories tall. There is not enough space to accommodate the staff on duty. Additional space would be beneficial for staffing and managing the facility.

**Operational Performance:**

Given that the Indian Trails Aquatic Center experiences the most visitors, it experiences the best financial conditions of the outdoor facilities. The average operational performance for Indian Trails Aquatic Center is shown in the table below for the past four years, as compared to the other two outdoor aquatic facilities.

**Table 11**

**Financial Performance Breakdown Per Pool**

(excluding dedicated programs, i.e. swim team and fitness classes, etc...)

| Water Surface            |               | 43,400 square feet |                    |                 |                    |                       |                      |                  |                    |               |               |
|--------------------------|---------------|--------------------|--------------------|-----------------|--------------------|-----------------------|----------------------|------------------|--------------------|---------------|---------------|
| Total Season Memberships |               | 2015               | 2016               | 2017            | 2018               | Ave.                  |                      |                  |                    |               |               |
|                          |               | \$113,546          | \$115,489          | \$118,187       | \$104,781          | \$113,001             |                      |                  |                    |               |               |
| Pool Facility            | WSA, s.f.     | Attendance         | % total attendance | Direct Revenue  | % Pool Memberships | Approx. Total Revenue | Revenue per attendee | Expenses         | Net Revenue        | Expenses /WSA | Cost Recovery |
| Ad Astra                 | 17,200        | 9,201              | 21%                | \$28,981        | \$23,335           | \$52,315              | \$5.69               | \$121,462        | \$ (69,147)        | \$7.06        | 43%           |
| Flat Rock                | 7,100         | 11,102             | 25%                | \$21,994        | \$28,155           | \$50,149              | \$4.52               | \$102,808        | \$ (52,659)        | \$14.48       | 49%           |
| <b>Indian Trails</b>     | <b>19,100</b> | <b>24,254</b>      | <b>54%</b>         | <b>\$64,948</b> | <b>\$61,510</b>    | <b>\$126,458</b>      | <b>\$5.21</b>        | <b>\$190,619</b> | <b>\$ (64,161)</b> | <b>\$9.98</b> | <b>66%</b>    |
|                          |               | 43,400             | 44,558             | \$115,922       | \$113,001          |                       |                      |                  |                    |               |               |

Operational performance of Indian Trails Aquatic Center:

- Indian Trails is the largest and most well rounded of the city’s outdoor aquatics facilities. Because of this, it receives over one-half of the total summer visitors for the three facilities.
- It receives revenue that is approximately three times of each of the other two facilities, and has expenses that are approximately twice each of the other two.

- While it is a large facility, the unit expense per water surface is relatively low at \$9.98 per square feet of water. The revenue per attendee is an average value of \$5.21 per attendee.
- The cost recovery is still low at 66%. We believe the attendance can be much higher, as it has been in the past. It has dropped likely due to a drop in interest from having the same amenities for the past 20 years.

### **Potential Improvements**

To extend the life of the facility for another 20 years or more, the following improvements could be made

- Replace the filter system and pumps
- Repair the original portions of the pool structure and coatings. Original structure is over 40 years old
- Replace original piping (over 40 years old)
- Replace the water slides with new versions
- Add a new lifeguard and administrative area
- Replace portions of the pool deck and repair/replace shade structures
- Consider additional amenities and new features

Our opinion of cost for renovation to extend the life of the existing facility is \$4M to \$5M, addressing only underlying issue with adding no additional recreational value or interest. Providing additional amenities and enhancements on top of the basic renovation typically adds an additional \$500,000 to \$1M, or more to the cost, which would put an enhanced renovation total at \$4.5M to \$6M.

### **Ad Astra Pool**

The Ad Astra Pool was constructed in the late 1980's. It was designed with a significant focus on competitive swimming practice and competition. It is located off I-435 interstate near 83<sup>rd</sup> Street and Maurer Road.

### **Construction History:**

- Original Construction: 1988
- Renovation: 2011 – the filter system was replaced  
2018 – Removed the wading pool  
Numerous times throughout the years – the pool deck was patched and replaced

### **Current Features:**

- Water Surface Area of 17,200 s.f.
- Zero-depth entry

- Deep water – with two one-meter diving boards
- Lap lanes: 8 – 50 meter lanes with depths of 4'-0" to 5'-0" deep  
8 – 25 yard cross lanes with depth of 4'-0" to 5'-0" deep



### **Physical Condition:**

The Ad Astra Pool experiences many challenges with its physical condition, and requires more maintenance and attention than the other aquatics facilities. Staff reports that there have routinely been issues with water loss from the pool structure, settlement of structures, and broken pool pipes since early in its life.

Items that appear to be in fair condition include:

- The building structure, despite its age of 40 years old. There was initial settlement on one end of the building that occurred soon after construction, but this appears to have been remedied and has stabilized.
- The filter system is new and working effectively as it was replaced in 2011.

Structures and systems that are in need of improvement include:

- The pool deck - vertical movement in the pool deck has reportedly been an issue since the initial construction. It has been “mud jacked” through the years and was replaced in the early 2000’s. However, it still continues to experience vertical movement.
- The below grade piping has broken in spots and been replaced. Related to this, water loss has been an issue off and on throughout its history as pipes have broken and been spot repaired. The pool reportedly did not lose water this past summer, but this was reported as an unusual circumstance as there have been consistent breaks through most summers.



- The pool structure – there is persistent cracking and delamination in the pool structure that requires patching and repair, particularly in the pool walls.
- The perimeter stainless steel gutter – experiences issues with the seams and corners, which tend to be the weak links of perimeter stainless steel gutter systems. At this point, the gutter system is reaching the end of its anticipated life expectancy at its current age of 40 years old.

### **Core Programs and Functional Assessment**

The design of Ad Astra Pool emphasizes competition swimming and diving as it is dominated by the 50-meter lap and diving area. There is a shallow area extending from the lap lanes that provides a large zero-depth entry beach. However, other than the diving board and zero-depth beach, it provides little recreational value for the community. The result is a large facility that experiences low attendance during open recreational swim times.

To utilize the facility more, the staff schedules large groups of day camps and day care providers at Ad Astra in effort to balance the attendance potential crowds from Indian Trails Aquatic Center.

The core programs currently offered at Ad Astra Pool include:

- Competitive Swimming and Diving (training and meets)
  - Swim and dive practice- mornings Monday through Saturday
  - Two or three meets – typically held in the evenings
- Open Recreation Swimming
- Fitness classes (Glide Fit, Glide Fit Yoga, Aerobics)
- Swim Lessons (evenings)
- Host location for day camps and large day cares

While the building appears to be in good condition and significant size, it falls short in a couple of areas. There are challenges to ADA accessibility within the building as well as access from the parking lot to the building itself. In particular, the major issues include

- The slopes from the parking lot into the bathhouse are excessive. This includes slope of the parking lot and sidewalk leading up to the building entrance.
- The entry/admissions counter is too high.

Lastly, a significant functional issue with Ad Astra Pool and Indian Trails Aquatic Center is the combination of their size and close proximity of two, as they are each over 17,000 s.f. of water and are located within two miles of each other. Their individual size

is such that they should be covering a large geographic area without directly competing with each other for visitors from the same neighborhoods.

### Operational Performance:

Ad Astra operations result in the largest subsidy of net revenue, where its average cost recovery for the past four years is 43% and financial subsidy is approximately \$69,000 each year. The operational performance for Ad Astra Pool is shown in the Table 12 below as averaged over the past four years, in comparison with the other two other outdoor aquatic facilities.

**Table 12**

**Financial Performance Breakdown Per Pool**

(excluding dedicated programs, i.e. swim team and fitness classes, etc...)

| Water Surface            |               | 43,400 square feet |                    |                 |                    |                       |                      |                  |                    |               |               |
|--------------------------|---------------|--------------------|--------------------|-----------------|--------------------|-----------------------|----------------------|------------------|--------------------|---------------|---------------|
|                          |               | 2015               | 2016               | 2017            | 2018               | Ave.                  |                      |                  |                    |               |               |
| Total Season Memberships |               | \$113,546          | \$115,489          | \$118,187       | \$104,781          | \$113,001             |                      |                  |                    |               |               |
| Pool Facility            | WSA, s.f.     | Attendance         | % total attendance | Direct Revenue  | % Pool Memberships | Approx. Total Revenue | Revenue per attendee | Expenses         | Net Revenue        | Expenses /WSA | Cost Recovery |
| <b>Ad Astra</b>          | <b>17,200</b> | <b>9,201</b>       | <b>21%</b>         | <b>\$28,981</b> | <b>\$23,335</b>    | <b>\$52,315</b>       | <b>\$5.69</b>        | <b>\$121,462</b> | <b>\$ (69,147)</b> | <b>\$7.06</b> | <b>43%</b>    |
| Flat Rock                | 7,100         | 11,102             | 25%                | \$21,994        | \$28,155           | \$50,149              | \$4.52               | \$102,808        | \$ (52,659)        | \$14.48       | 49%           |
| Indian Trails            | 19,100        | 24,254             | 54%                | \$64,948        | \$61,510           | \$126,458             | \$5.21               | \$190,619        | \$ (64,161)        | \$9.98        | 66%           |
|                          |               | 43,400             | 44,558             |                 | \$115,922          | \$113,001             |                      |                  |                    |               |               |

### Operational performance of Ad Astra Pool:

- Specific financial indicators are positive, such as the revenue per attendee of \$5.69- but the low attendance results in low revenue. Additionally, the expense ratio of \$7.06 per square feet of water indicates efficient operations, but still results in a high expenses cost due to the large facility size.
- Ad Astra Pool is a large facility with a low number of visitors, which results in a large amount of expenses but low revenue to offset.
- Staff estimated that 5,774 of the total 9,201 visits to the pool (62.8%) were from daycare or day camps that were scheduled or directed to Ad Astra Pool due to its large capacity and low attendance. Without actively directing groups to Ad Astra, its attendance and revenue would be substantially less.
- In summary, Ad Astra financially performs poorly because it is a very large facility that does not have amenities to generate interest and attendance.

### **Potential Improvements**

To extend the life of the facility for another 20 years or more, the following improvements could be made.

- Renovate the bathhouse to change the entry configuration and improve the interior
- Reconstruct the entry area to provide ADA accessibility from the parking lot to the bathhouse
- Provide significant repairs to the existing pool structure, coatings and stainless steel gutter
- Replace all below-grade piping and pool deck
- Consider additional shade along the perimeter deck
- Consider additional amenities and new features

Our opinion of cost for renovation to extend the life of the existing facility is \$4M to \$5.0M, addressing only underlying issue with adding no additional recreational value or interest. Providing additional amenities and enhancements on top of the basic renovation typically adds an additional \$500,000 to \$1M, or more to the cost, which would put an enhanced renovation total at \$4.5M to \$6M.



## Best Practices

In determining optimum options for the future of Lenexa's aquatics facilities, it is beneficial to identify best practices through study of other successful facilities and operations. Best practices can be identified through various characteristics such as:

1. Interesting facilities that contain attractive amenities and flexible spaces that allow for optimum programming
2. Appropriate-sized facilities with locations and market conditions that are optimum for serving the community and for positive financial service
3. Successful management and operations that provide optimum programming and financial performance.

The most relevant facilities are those with similar market conditions as the City of Lenexa. In searching for facilities that were relevant, locations were considered that have similar circumstances to the City of Lenexa, with criteria as follows:

- Suburban city connected to a larger Midwest area metro population
- Rapidly growing population, growing geographically outward from the metro population center
- City located along the suburban perimeter of the metro population, with capacity for population to expand
- Presence of competing aquatic centers, perhaps located inward within the metro populated area, and lesser or lack of competing aquatic centers outward of the populated metro area

Four outdoor facilities located within or nearby the Kansas City metro area were toured by city staff and the consultants. These facilities were reviewed with respect to their amenities, configuration, attendance, and operations to help identify what makes a successful facility that is embraced by the community. The facilities toured include:

- Midwest Health Aquatic Center- Topeka, Kansas
- Gardner Aquatic Center – Gardner, Kansas
- The Bay Aquatic Center- Kansas City, Missouri
- Summit Waves- Lee's Summit, Missouri

A more detailed observations report from the tours can be found in the Appendix, Best Practices – Facility Tours.



# Options

## Aquatics Facilities Scenarios- Base Strategies

The following primary goals seem appropriate when considering changes to the aquatics facilities and programming for the City of Lenexa.

- Improve the overall aquatics facilities by providing more modern amenities
- Look for opportunities to serve the growing population expansion to the west

To study opportunities to fulfill these goals, several scenarios were developed, including:

- **Potential Strategy #1 – Neighborhood approach.** Includes maintaining the existing facilities in their current locations, while adding an additional appropriately-sized facility to serve the western population.
- **Potential Strategy #2 – Regional approach.**<sup>2</sup> This scenario includes closing one of the three outdoor facilities (Ad Astra Pool), replacing it with a new central-western regional facility.
- **Potential Strategy #3 – Central water park approach.**<sup>2</sup> This involves closing two existing facilities (Ad Astra Pool and Indian Trails Aquatic Center) and replacing them with a large centrally located aquatic center.

The following table includes a summary of the potential strategies, with text following the table that provides a narrative of considerations for each one.

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<sup>2</sup> Amenities such as splash parks would provide beneficial additions to this strategy. See Supplemental Amenities Section for recommendations on splash park additions.

**Table 13 – Options / Strategies Considered**

|   | Neighborhood Approach               | Regional Approach<br>With 1 splash park           | Central Water Park<br>with 2 splash parks                  |
|---|-------------------------------------|---|--|
| <b>Total No. of Pools/Splash Parks</b>          | 4 / 0                               | 3 / 1   | 2 / 2  |
| <b>Ad Astra</b>                                 | Remains Open (required renovation)  | Closed  | Closed   |
| <b>Indian Trails</b>                            | Remains Open (required renovations) | Remains Open (enhanced renovation)                | Converted to Splash Park with potential neighborhood pool  |
| <b>Flat Rock Creek</b>                          | Remains Open (as is)                | Remains Open (as is)                              | Remains Open (as is)                                       |
| <b>Western Location Site</b>                    | New Neighborhood Facility           | New Regional Facility                             | Splash Park  |
| <b>Central Location Site</b>                    | N/A                                 | N/A   | New Large Aquatics Facility                                |
| <b>Supplemental Amenities/<br/>Splash Parks</b> | N/A                                 | Potential splash park(s) could be added (1 total) | Splash parks added to east and west regions (2 total)      |
| <b>Total Water Surface Area</b>                 | Approx. 50,000 s.f.                 | Approx. 40,000 s.f. (excluding splash park area)  | Approx. 30,000 to 32,000 s.f. (excluding splash park area) |
| <b>Opinion of Capital Cost</b>                  | \$15M to \$17M                      | \$21M to \$25M                                    | \$21M to \$25M (with supplemental amenities)               |
| <b>Opinion of Operating Cost Recovery</b>       | 66% (with \$200K annual deficit)    | 83% (with \$115K annual deficit)                  | 88% (with \$85K to \$92K annual deficit)                   |

### Potential Strategy #1 – Neighborhood Approach: 4-Pool System

As stated earlier, this option would include continuing to operate the existing 3 aquatic centers, but also add a fourth facility in the central or western portion of the city limits. Maintaining 4 aquatic centers for a projected population base of approximately 53,000 would suggest that each facility is operated as a neighborhood pool in character, each ideally serving one-quarter of the service population.

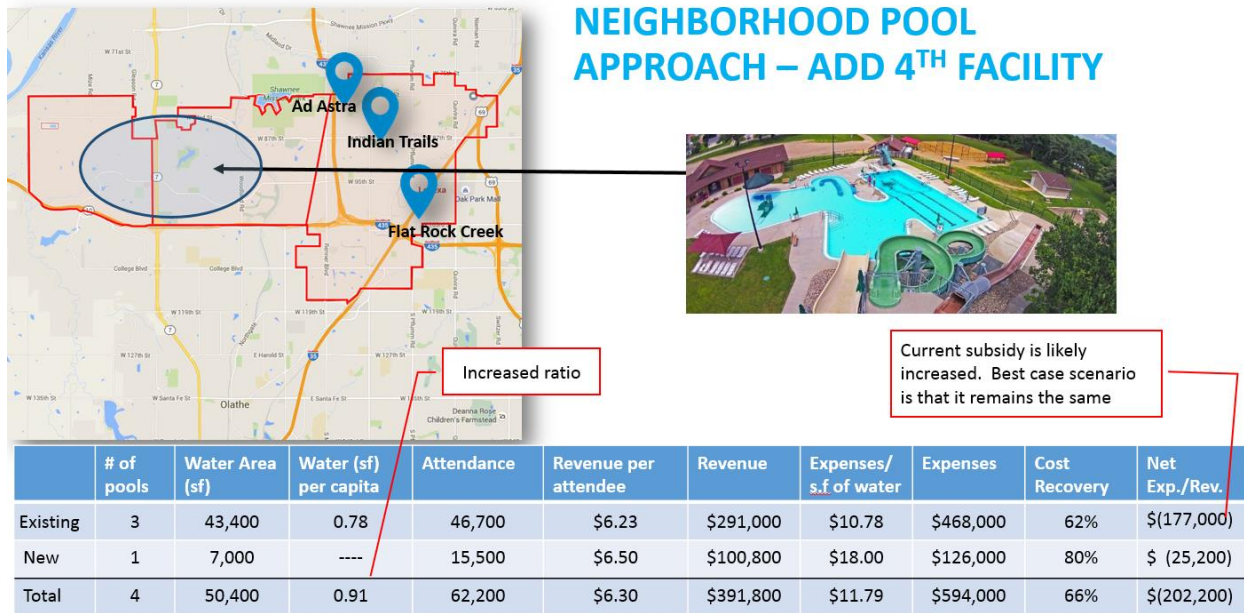
The challenge to this model is that two of the three existing facilities are larger than neighborhood-sized pools, making them expensive to operate relative to the attendance and revenue experienced. A typical neighborhood pool is approximately 5,000 to 8,000 s.f. in size, and could include many family-friendly aquatic center amenities. An example of such facility is shown below.



### Operational Impact

Given that the City of Lenexa is already providing higher than average water surface area of 0.81 s.f. per capita, adding additional water surface would likely increase the operating subsidy. The financial impact of adding a fourth pool to the system is projected in Figure 8 following.

Figure 8



This projection makes a primary assumption that a new facility located west does not adversely affect the attendance and revenue of the existing three facilities, but that the overall attendance and revenue is increased due to the interest that the new facility generates. There is likely a greater increase in subsidy (expenses over revenue) as a result of increased facilities to operate.

There are several concerns with the neighborhood approach. The major downside of adding a fourth facility is it will not improve the recreational amenities of the existing facilities. It only improves their operational conditions. This is a major reason this approach should not be considered. Additionally, it adds more facilities to operate, adding to the higher expenses and challenges of securing lifeguards and still does not address the fact two large facilities needing significant improvements (Ad Astra and Indian Trails) are two miles apart from each other. A more feasible option may include reducing the size of one or both Ad Astra Pool or Indian Trails Aquatic Center facilities, or by closing one of the two facilities given their close proximity and significant improvements needed.

Implementation of this approach could include the following:

- Continue to operate Flat Rock Pool as is
- Construction of a new neighborhood pool toward the west
- Provide improvements to Ad Astra Pool to extend its life and potentially add new amenities



- Provide improvement to Indian Trails Aquatic Center to extend its life and potentially add new amenities

#### Opinion of Capital Cost- (\$15M to \$17M)

We anticipate the capital project cost would range from \$15M to \$17M to implement this scenario, depending upon the extent of renovation and whether enhancements are included. However, we believe implementing this scenario would result in additional operating deficits unless the plan also includes reducing the size or closing one of the current facilities.

#### Potential Strategy #2 – Regional Approach: 3-Pool System

This option applies an east-west regional approach to the outdoor aquatics, by providing a substantial facility for both the east and west parts of the city. Flat Rock Creek Pool would continue to operate as the third facility, and would continue to serve the neighborhood east of I-35, through its remaining life. At the completion of its useful life, the decision could be made whether to replace the facility or allow the other two facilities to serve the community.

A regional facility would be larger than a neighborhood pool identified in the Neighborhood Approach. While a neighborhood facility might typically range in size from 5,000 s.f. to 8,000 s.f. of water surface, a regional aquatics facility might range in size from 8,000 s.f. to 16,000. The example shown below is approximately 16,000 s.f., which is a larger-sized regional aquatic center or could be considered a smaller water park.

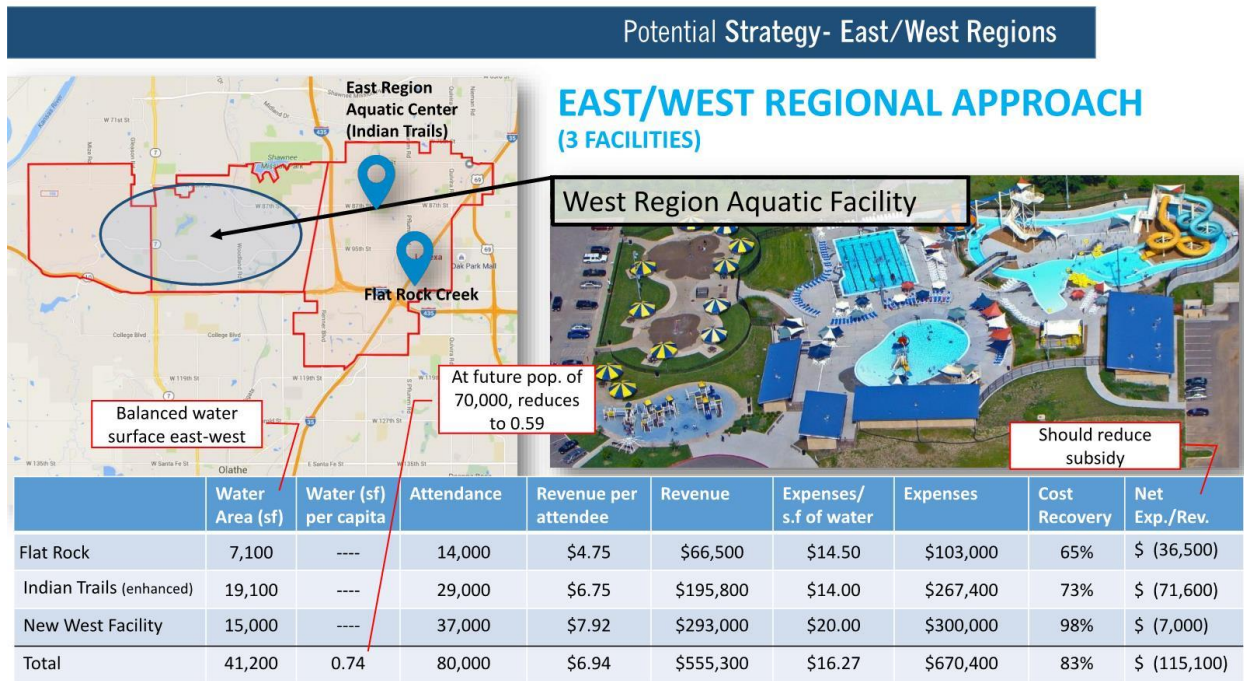


This approach allows for the addition of a new facility to serve the west, and for an improved existing facility to serve the east side. The overall size of the facilities should not increase, limiting the additional expenses while the interest in the improved facilities should increase attendance and revenue. This would result in a reduced operating subsidy. In this scenario, we recommend that Ad Astra Pool be the facility that is closed while Indian Trails be renovated to modernize it and extend its life span. Given the condition and current operating performance, we believe that Indian Trail Aquatic Center is the more feasible option for renovation than Ad Astra Pool.

Operational Impact

A projection of the resulting operations is included in Figure 9 below.

Figure 9



With this scenario, we anticipate that overall attendance for the outdoor pools would increase substantially along with the revenue generated, resulting in a substantial reduction in the subsidy. With the elimination of one of the current facilities and construction of a new one west, it provides an amount of water surface area to the west that is more closely proportioned with the population distribution from east to west. This scenario also slightly decreases the overall water surface area that is managed (reducing the water surface area provided per capita) which increases the chance for more positive financial operations.



Implementation of this approach could include the following:

- Continue to operate Flat Rock Pool as is
- Construction of a new regional facility west of the current facilities
- Close Ad Astra Pool, demolish the structures
- Provide improvements to Indian Trails Aquatic Center to extend its life and potentially add new amenities

#### Opinion of Capital Cost- (\$18M to \$20M)

We anticipate the capital project cost would range from \$18M to \$20M to implement this scenario, depending upon the extent of renovation and whether enhancements for a new regional facility are included. Additional land acquisition expenses for the new regional facility may be incurred if the facilities are not located on city-owned property.

#### Potential Strategy #3 – Central Water Park Approach: 2-Pool System

When studying communities with aquatic facilities that have the most successful financial operations, a consistent pattern is evident. They tend to include larger cities with a fewer number of aquatic facilities (one or two) and a lower ratio of water surface area per capita.

Given the age and condition of both Ad Astra Pool and Indian Trails Aquatic Center, an opportunity exists to replace both facilities with a single large water park that is centrally located within the city. This would create a single larger facility that could contain a wider array of amenities and attract a larger attendance, while also benefiting from greater efficiencies of a single larger facility. The facility could contain over 20,000 s.f. of water surface, with both water park features to attract visitors and traditional pool spaces to serve aquatics programs. An example of such facility includes the previously shared Cascade Falls, located in Ankeny, IA



The Central Water Park option provides amenities and aquatics programming at a substantially smaller overall size compared to Lenexa’s current combined facilities. It also provides the most attractive facility that draws positive attendance and revenue. The result is a much higher financial performance resulting in potentially little or no operating subsidy.

Operational Impact

A projection for this scenario is shown in Figure 10.

**Figure 10**



The location of a central water park option is important to the success of the facility. Obvious choices include the current Indian Trails Aquatic Center location, or a new site that is accessible to as many as possible.

Implementation of this approach could include the following;

- Continue to operate Flat Rock Pool as is
- Construct a new water park that is centrally located. Two options for this include
  - substantial renovation/expansion of Indian Trails Aquatic Center, or
  - demolition of Indian Trails with construction of a water park at a new site
- Close Ad Astra Pool, demolish the structures

While the central water park approach fosters successful aquatics programs and financial operations, it may leave the western-Lenexa population with more remote access to outdoor aquatics, particularly if the present site of Indian Trails Aquatic Center is utilized. Some consideration is given to this issue with options presented later in the study.

#### Opinion of Capital Cost- (\$18M to \$20M)

We anticipate the capital project would range in cost from \$18M to \$20M to implement the central water park strategy. Additionally, supplemental amenities such as splash parks can be added to this strategy to enhance access to water recreation for populations located in the eastern or western portion of the city. Information regarding splash parks is listed in subsequent sections.

#### Potential Locations for Central Water Park

When identifying potential locations for a central water park, two competing approaches were considered as follows.

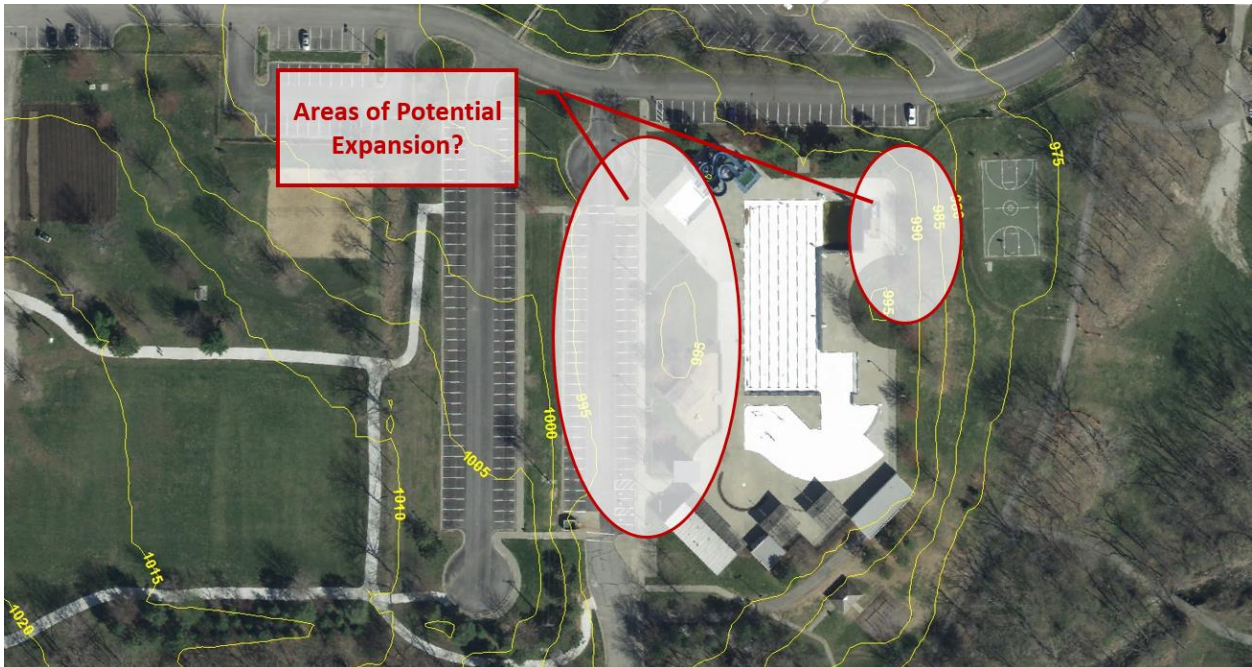
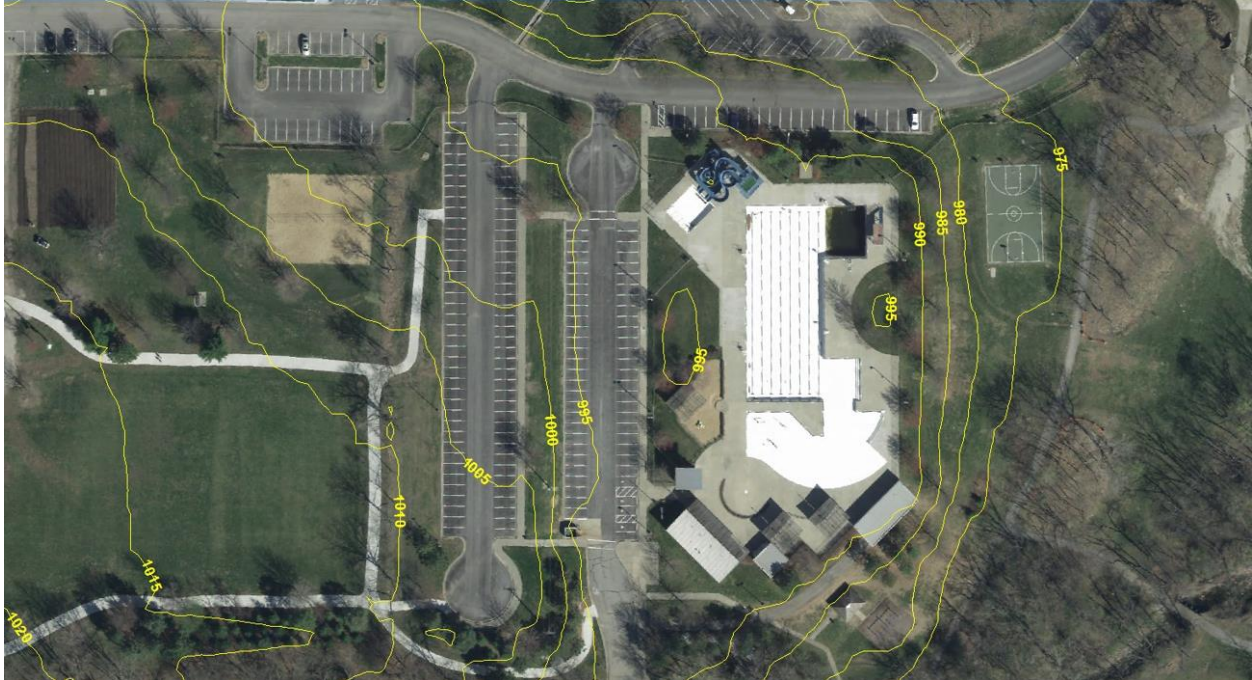
- Indian Trails Location. Taking advantage of the current Indian Trails Aquatic Center by utilizing existing structures to save capital expense. However, it is not centrally located.
- New Location. Finding a more central geographic location that is more visible and/or accessible from I-435 or K-10 highways- allowing the facility to be a more regionally accessed aquatics facility

Considerations for each approach follows.

#### Indian Trails Location:

Given the location and current public acceptance of the Indian Trails Aquatic Center, constructing the central water park in this location is an option. The newest portion of the facility could be salvaged and incorporated into a new water park, including the buildings and the shallow portion of the pool. However, there is limited room on site to expansion of the facility to include more family-friendly water park amenities. The facility is bound to the north by the park drive, to the south by the property line, and to the west by the parking lot. There is room to the east, but there is a large drop in elevation that falls away from the current pool deck at the aquatic center. Given these constraints, the most feasible locations for expansion includes some area to the east, but mostly to the west by relocating existing parking areas. See the aerial images below.





To convert Indian Trails into a regional water park, more modern amenities should be considered. While there is no specific requirement or formula for such amenities, the following are examples of amenities that have been found to be popular at community water parks.

- Zero-depth entry with shallow water (current amenity)
- Concessions and lounge spaces



- Wet deck with interactive spray features and play structure
- Lazy river
- Water slides
- Deep water activity area with a slide, diving, and a climbing wall

In addition, an area with long-course and short-course lap lanes would benefit the competitive swim program and fitness classes. A potential concept with these amenities is shown in Figure 11 below. We project a facility such as this would have a total project cost of approximately \$10M to \$15M.

Figure 11



The Indian Trails location includes the benefits of already being an established aquatic park and having structures that can be utilized, however, it is not centrally located. Additionally, as the central water park option is considered by staff and city leadership, there is hesitation with the plan to expand Indian Trails Aquatic Center within Sar-Ko-Par Trails Park. The expressed concerns are with expanding the aquatic center to the point that its function and traffic dominate the park and adversely affect the rest of the park character and experience.

New Location for Central Water Park

A site more closely connected to I-435 or K-10 would encourage more participation from beyond the adjacent neighborhoods- increasing the attendance and encouraging positive financial operations. Locations that are very visible to the public routinely experience higher attendance and revenue over those facilities that are hidden within neighborhoods. The visibility of the water park provides a higher-level of marketing to potential guests. A new facility will also take advantage of new technologies and user friendly amenities.

There are a properties located just west of I-435, along major arterial streets that might be available to house a new regional water park. The concept in Figure 12 below includes the previously identified amenities at a new site.

Figure 12





## Supplemental Amenities (Splash Parks)

Independent of the previous scenarios, the aquatics facilities can be supplemented in other neighborhoods or regions with splash parks. One or more splash parks can be applied along with any of the previous scenarios.

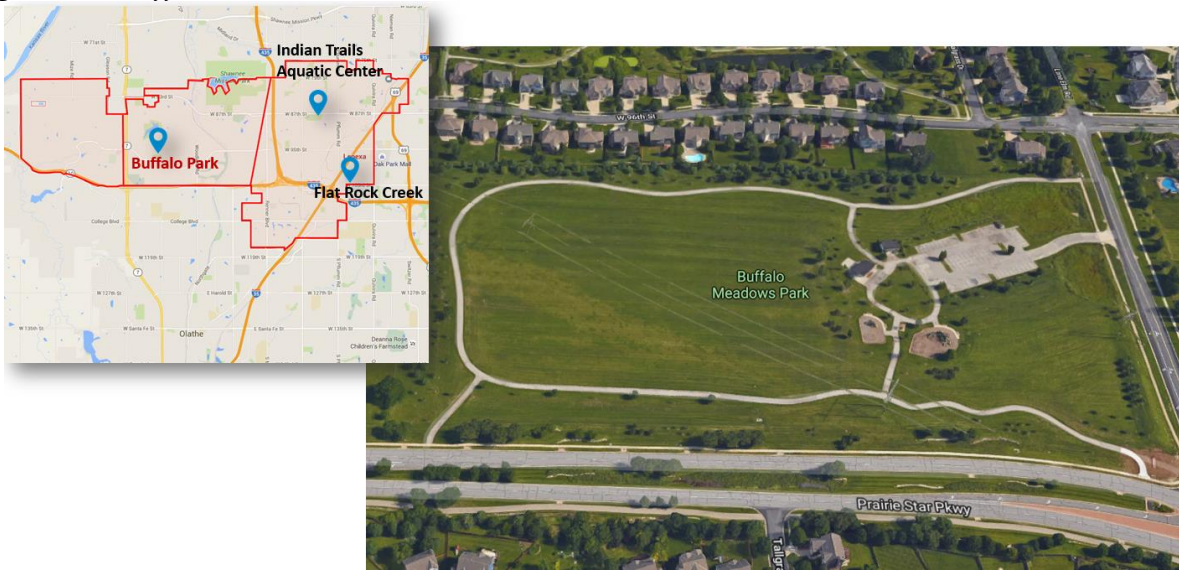
Splash parks are typically at a more modest scale and thus are often sized and located within neighborhood parks, making them readily accessible to the adjacent communities. Additionally, they are generally operated without staff on duty and made available with no admissions fee that swimming pools possess. This provides value to those who may not always have an option, such as those who are in HOA communities with no swimming facility.

A splash park provides aquatics features without the operational challenges and expense that swimming facilities with lifeguards possess. Splash parks appropriate for Lenexa neighborhoods would typically be in the range of \$750,000 to \$1.5M. In particular, splash parks might be most beneficial in the western portion of the city limits that have neighborhoods with less population base to support full-sized aquatic centers on their own.

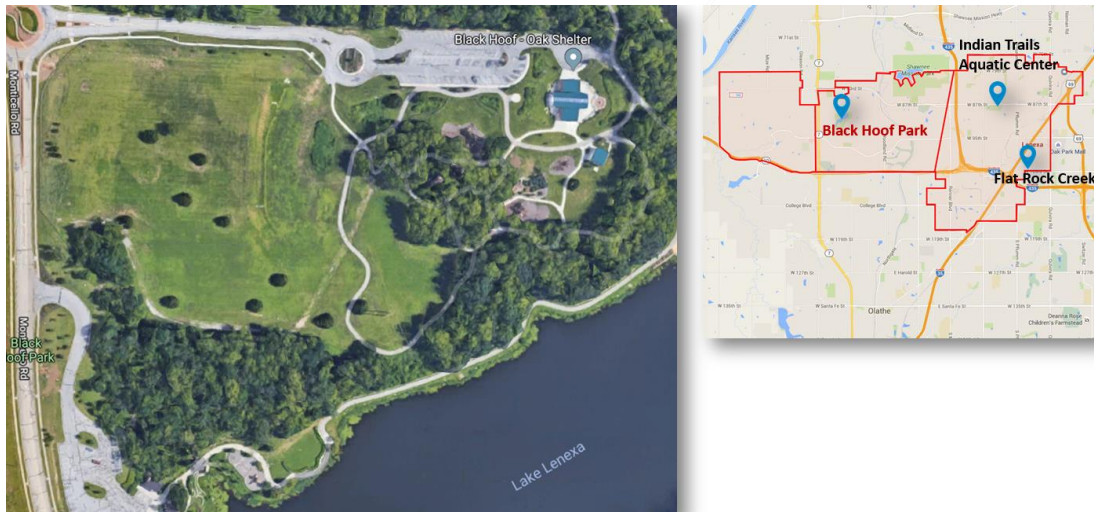
Additionally, Lenexa Parks and Recreation staff reports that they have experienced significant interest from the general public in splash parks through the public engagement activities of Vision 2040, and prior to this study through feedback given by current Lenexa recreation users.

A couple of city-owned parks in the western portion of Lenexa include Buffalo Meadows (Figure 13) and Black Hoof Parks (Figure 14). These are located close in proximity, but each contains existing infrastructure that would support a splash park-including utilities, parking, restrooms, and playgrounds. Having the existing infrastructure makes the addition of a splash park less expensive and also helps enhance the offerings at the existing parks, making them a more attractive destination.

*Figure 13- Buffalo Park*



*Figure 14 – Black Hoof Park*



In our opinion, providing splash parks in one of more of these parks is a great way to provide splash parks at a lower capital cost and also serve the western city populations that are more remote from the current outdoor aquatics facilities.

The capital project cost of splash parks can range greatly depending upon size and features included. In our opinion, smaller splash parks such as the one pictured below more commonly cost in the range of \$300,000 to \$750,000 per facility, excluding other potential infrastructure costs such as parking and restrooms.





(Photo: Vortex International)

More substantial splash parks can typically cost in the range of \$750,000 to \$1.5M.



(Rendering: Vortex International)

## Strategies with Supplemental Amenities

### Potential Strategy – Central Water Park Approach with Indian Trails & West Lenexa Splash Parks

With the option of constructing a water park at a new location, there are two concerns expressed within city leadership as follows

- Concern was expressed over the central water park's ability to serve the western-most populations. A supplemental splash park in the western-region provides accessibility to those looking for closer access, or who have transportation or financial challenges to participate regularly at central water park.
- Concern was expressed over losing Indian Trails Aquatic Center as an accessible and walk-able park for the central Lenexa population. An option suggested by city council includes preserving Indian Trails as a walk-able neighborhood facility. The newest portions of the facility would be preserved with the remaining portions demolished and reconstructed to convert Indian Trails Aquatic Center to a neighborhood water recreation park.

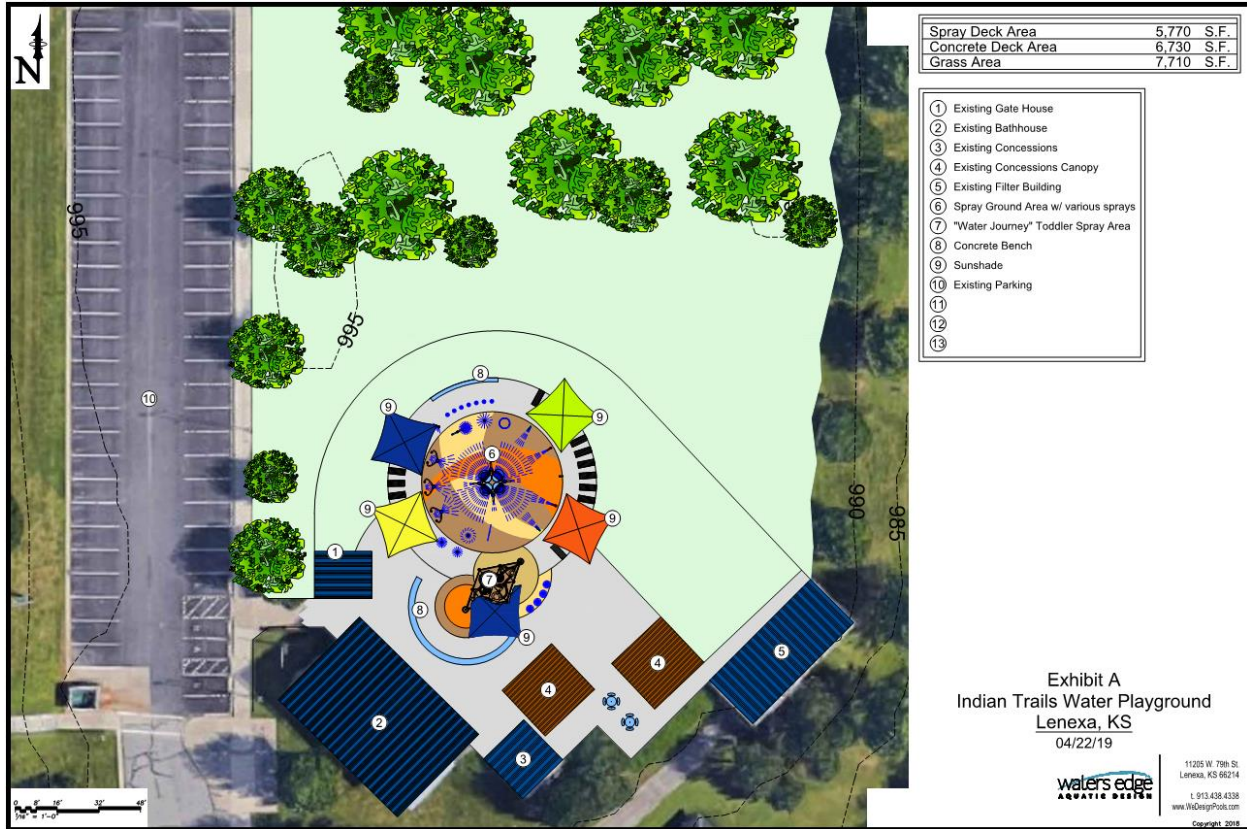
Supplemental splash parks provide water recreation without the higher staff and cost of a full aquatic center. More details and discussion for splash parks follow later in this study.

Implementing a strategy with the splash parks at Indian Trails and a western geographic location could include the following;

- Continue to operate Flat Rock Pool as is
- Construct a new water park that is centrally located at a new site
- Close Ad Astra Pool, demolish the structures
- Construct a splash park in the western region of Lenexa to serve the western-most population
- Convert Indian Trails into a neighborhood splash park by demolishing the pools and utilizing the existing buildings. A representative concept for converting Indian Trails Aquatic Center is shared below in Figure 15.



Figure 15



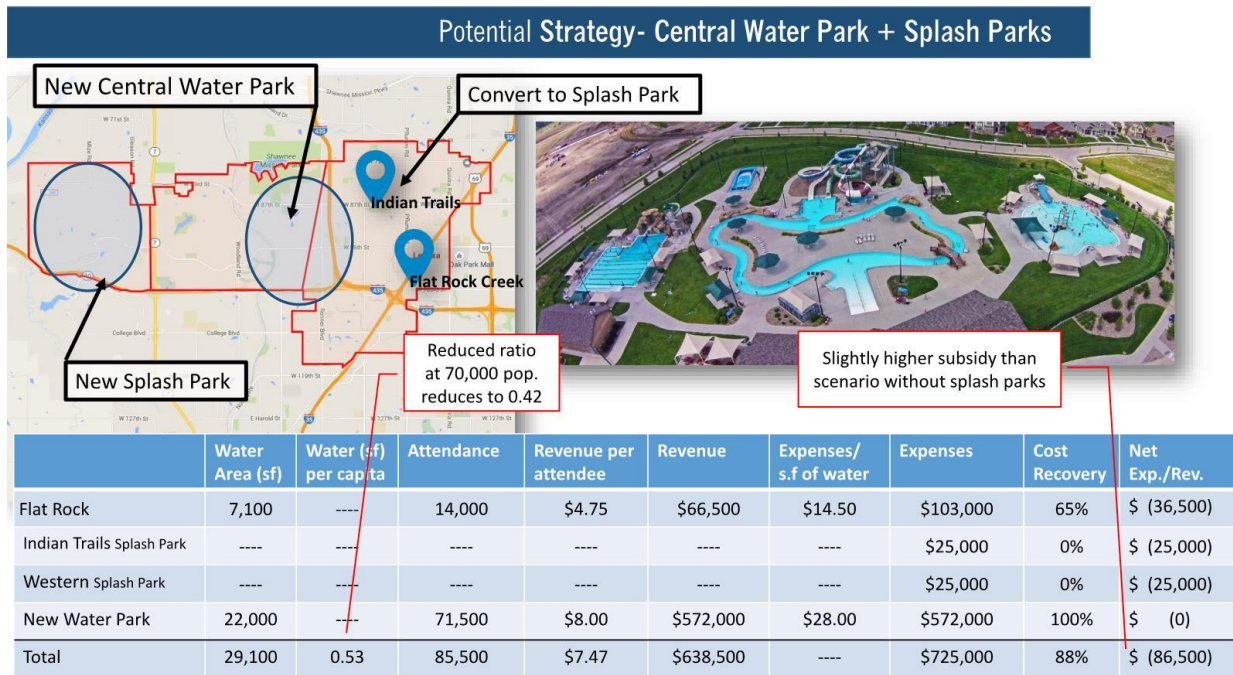
This option allows for a neighborhood water recreation facility in Sar-Ko-Trails Park that does not dominate the other activities in the park, nor does it contribute to the demands of staffing an aquatic center. The facility consists of a large splash park with a wet deck with spray features, but does not include basins of water with swimming that would require lifeguarding. Swimming programs would be provided at the other two swimming pools.

A splash park of similar size and scale could be constructed at a location to serve the more remote western portions of the city.

Operational Impact

This option is projected to have a similar financial performance as shown previously for the Central Water Park option (Strategy #3). The difference lies in the additional expense of operating the splash parks, which includes utilities, chemicals, and maintenance; but excludes lifeguarding staff. We also assume that the splash parks would not receive substantial revenue as there would not be staff there to operate and collect admissions fees. A projection for this scenario is shown below.

Figure 16



Opinion of Capital Cost (Central Water Park Approach with Indian Trails & West Lenexa Splash Parks)- (\$21M to \$23M)

We project a conversion of Indian Trails Aquatic Center into a neighborhood splash park such as this would have a total project cost of approximately \$2M, including demolition of the existing pool and some modest improvements to the existing site.

A splash park for the west region of Lenexa could have a project cost of \$1M to \$2M in total project costs.

Adding these amenities to the Centrally-Located Water Park Approach increases the anticipated total capital project cost to range of \$21M to \$23M.

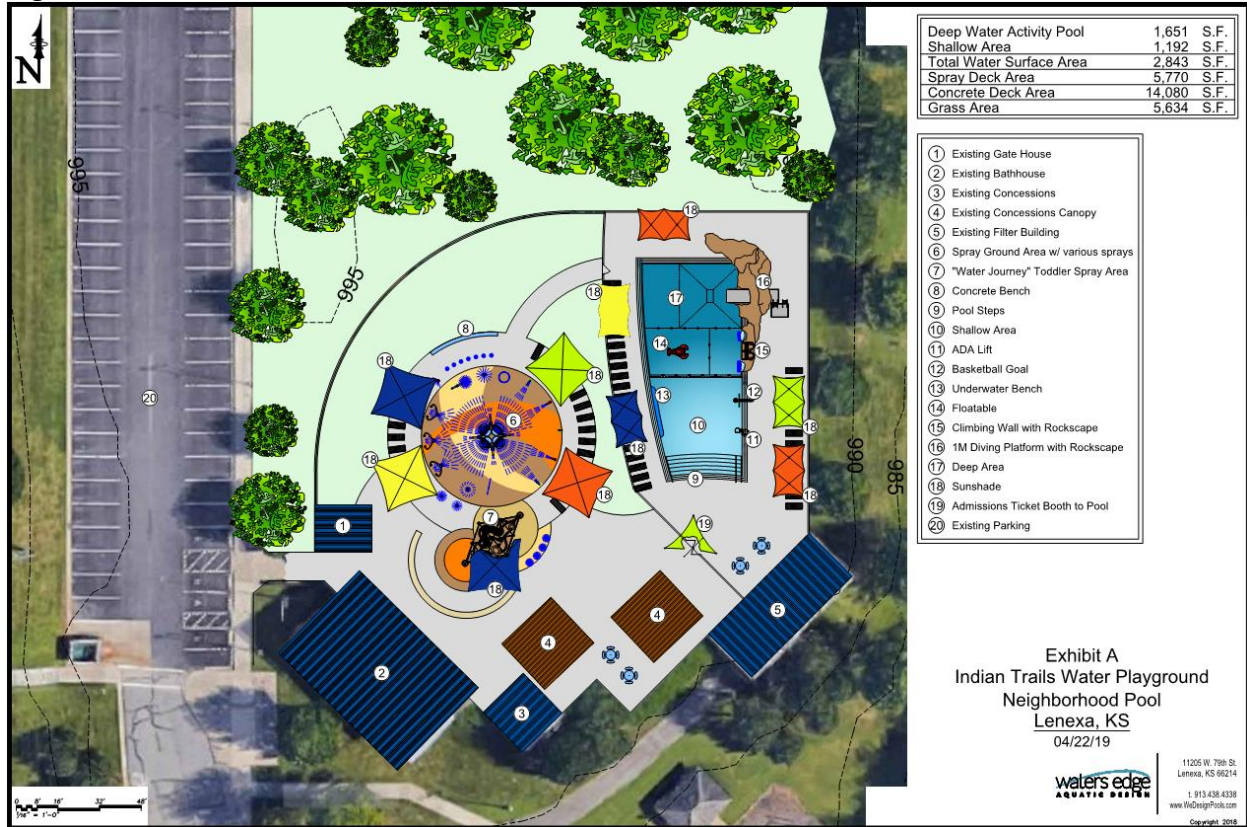
Potential Strategy – Central Water Park Approach/ Indian Trails as Neighborhood Splash Park and Pool Facility

The Indian Trails splash park shown in the previous strategy could be expanded to include a fenced area with a basin of water for swimming. This expands the program use of the facility, increasing its desirability, but also increases the expenses and staffing obligations. This works against a primary goal for this study, which is to reduce the financial and staffing operations obligations. The splash park could be operated at extended hours each day, as well as an extended season, without requiring lifeguard



staff and without significantly impacting the financial operations. The enclosed pool areas could be operated at a more finite time schedule, limiting the staffing obligation and expenses. An example sharing the expanded facility is shown below in Figure 17.

Figure 17



### Operational Impact

Given this option is an expansion of the previous strategy, it is projected to have a slightly larger expense with similar financial performance. The difference lies in the additional expense of operating the small neighborhood pool during select hours, which includes utilities, chemicals, and maintenance- but also a limited lifeguarding staff. We also assume that the neighborhood pool area would be fenced and would receive some revenue to offset the added expenses. A projection for this scenario is shown below in Figure 18.

Figure 18



Opinion of Capital Cost (Central Water Park with Indian Trails as Neighborhood Splash Park and Pool Facility)- (\$23M to \$25M)

Our Opinion of Cost to convert Indian Trails to a splash park and neighborhood pool facility is approximately \$5M in total project costs, including the site costs to demolish the existing pool structures and structures.

Again, a splash park for the west region of Lenexa could have a project cost of \$1M to \$2M in project costs.

Adding these amenities to the Centrally-Located Water Park Approach increases the anticipated total capital project cost to range of \$23M to \$25M.

## Recommendations

We believe there are specific goals that are primary considerations for the future of Lenexa's aquatic facilities, which include the following

### Primary Goals

- More modern outdoor aquatic facilities should be provided for the citizens of Lenexa
- A facility should be provided that serves the western population of the city in a location that is either central to the geographic limits or located toward the west
- The overall size of the outdoor aquatics facilities should not increase, as this would result in a continuation of the current operating subsidy or increase. In fact given the relatively high current ratio of 0.82 s.f. of water surface area per capita for the Lenexa outdoor aquatics facilities, we believe the overall size of the facilities should decrease in order to facilitate better financial conditions and lower the current operating subsidy.
- Providing fewer facilities, that are larger and more operationally efficient compared to more neighborhood pools, would result in better sustainability in more efficient operations. This would still provide the desired aquatics programs that would serve the community.

**Recommendations for achieving the goals** listed above fall under two actions, which include

1. Reduce the overall size of Lenexa's outdoor aquatics facilities

Reducing the overall size of Lenexa's outdoor aquatics facilities will improve the ability of Lenexa to operate the outdoor aquatics facilities, and will result in improved financial operating conditions.

We recommend that this be accomplished by closing the Ad Astra Pool facility. As stated previously, Indian Trails Aquatic Center and Ad Astra Pool are each very large facilities and are located in very close proximity. Both facilities serve the same general population geographically, and as they compete with each other. Neither facility experiences substantial attendance given their size.

Many factors support closing Ad Astra Pool over Indian Trails, including facility attendance, age, condition, and its poorer condition. Closing Ad Astra will create better efficiencies and refocus resources on Flat Rock Creek Pool and Indian Trails Aquatic Center. Some of the reasons for closing Ad Astra Pool include:

- Its close proximity to Indian Trails Aquatic Center
- Ad Astra is an older overall facility and is in poor physical condition that Indian Trails Aquatic Center.
- Ad Astra experiences a low attendance of approximately 9,000 seasonal visitors compared to approximately 24,000 in attendance for Indian Trails Aquatic Center (38%). As shared previously, this attendance at Ad Astra is largely from day camps and other groups that are scheduled or directed by the city staff to Ad Astra. Without actively directing groups to Ad Astra Pool, the number of visits in a summer season reduces to under 3,500.
- Day care, day camps, and competitive swim training can be scheduled or directed to Indian Trails or Flat Rock Creek Pools.
- Ad Astra does not have the aquatic center amenities such as large water slides that Indian Trails Aquatic Center has.
- It operates at a lower cost recovery compared to Indian Trails Aquatic Center.

Closing Ad Astra for the 2020 season can be accomplished over one year, allowing time to implement the plan and transition operations. Indian Trails Aquatic Center and Flat Rock Creek Pool are in a position to geographically serve the community and can accommodate the existing outdoor aquatics programs that would be transitioned from Ad Astra Pool.

2. Modernize the outdoor facilities by constructing a **central water park facility with supplemental amenities** which will improve the aquatics programs and ability to serve the community.

The two more feasible strategies include the regional approach, or the central water park approach. Of these two options we recommend that the City of Lenexa consider the central water park option, as it would both provide facilities for the city's aquatic programs and result in the most successful operational performance.

Additionally, we believe constructing the central facility closer to the interstate along I-435 would improve access, and increase awareness and visibility of the facility to the public resulting in an increased opportunity for better operations.



Finding a new location for the facility would also preserve Sar-Ko-Par Trails Park and Ad Astra Park for other recreational opportunities for the city.



With the central water park strategy, we recommend splash parks be included to provide additional readily-available amenities, especially for neighborhoods that would benefit most or are more remote. A beneficial strategy includes providing a splash park located in the eastern portion of the city, where there is higher population density, and one for the western portion of the city where the neighborhoods are more remote from the suggested water park location.



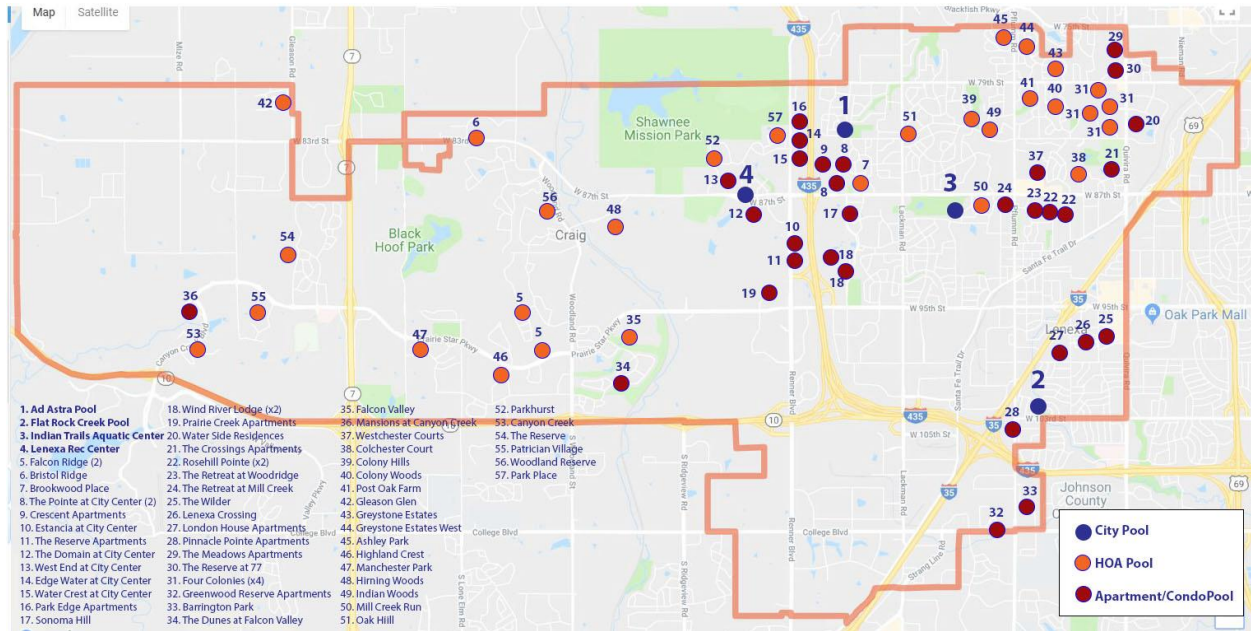


# Appendix



## Appendix A – Home Owners Association (HOA) Pools

### City of Lenexa – Aquatics Study



### Summary

The City of Lenexa has approximately 53 different communities that offer a total of 60 pools as a part of an HOA or rental complex. This number is up 24% from 2012, according to the Parks, Recreation, and Open Space Comprehensive Plan Community Outdoor Pool analysis. For the purpose of this report, HOA Pools include both owned/neighborhoods and rentable complexes, such as apartments. *See the attached 2019 Lenexa HOA list for detailed information.*

*HOA Community Breakdown*

The following breakdowns demonstrate the totals of each data set based on the total number pools (60) in the HOA market area.

| Location               | Number of Pools | % of Total | % Change from 2012 |
|------------------------|-----------------|------------|--------------------|
| East of 35             | 6               | 10%        | +33%               |
| East of 435/West of 35 | 30              | 50%        | + 13%              |
| West of 435/East of K7 | 19              | 32%        | + 32%              |
| West of K7             | 5               | 8%         | + 60%              |

| Type                     | Number of Communities | Number of Pools | % of Total |
|--------------------------|-----------------------|-----------------|------------|
| HOA                      | 23                    | 25              | 42%        |
| Apartment/Condo (Rental) | 30                    | 35              | 58%        |

*Population*

This increase in HOA pool facilities is compatible with the population growth seen in both the overall city’s population and the growth in the regions throughout the city. The largest increase in population is currently in Western Lenexa at Black Hoof Park, which is near the K7 corridor. The area west of 435 and east of K7, represented by Lenexa Rec Center, also shows population growth. Currently, the population is most dense East of 435 and West of 35, and also has the highest concentration of HOA pool facilities; this same area shows the lowest increase in HOA pool facility growth.

It is estimated that approximately 80% of the city’s population reside in housing with access to an HOA affiliated pool. Additionally, approximately 83% of the total city population visits the outdoor pools per season. This suggests that although there is access to HOA pools, the community utilizes the outdoor pools for those elements that are not available via their HOA pool. It is of note that this calculation includes utilization by day camps and unique visits.

*HOA Pool Notes*

- Interesting elements
  - Several pools have shallow water designed to have chairs in the water – adult oriented, “sun shelf”
- Features observed

- Shallow water
- Seating
- Shade
- Some pools have separate wading pools for children
- Features not observed
  - Minimal deep water
  - Play or fun features
- Specific facilities of note
  - Four Colonies
    - 4 outdoor pools
      - 3 pools have separate wading pools
      - 1 pool adults only
  - Wind River Lodge
    - 25 meter length





## Appendix B – Best Practices / Facility Tours

City of Lenexa – Aquatics Study

### Midwest Health Aquatic Center- Topeka, Kansas



| City Pop. | Total Water Area | Water per capita | Facility Area | Attendance | Facility Expenses | Expenses / sf water | Facility Revenue | Revenue / attendee | Cost Recovery |
|-----------|------------------|------------------|---------------|------------|-------------------|---------------------|------------------|--------------------|---------------|
| 126,800   | 56,900           | 0.45             |               | 25,675     | \$246,900         |                     | \$246,700        | \$9.61             | 100%          |

communities. It has an interesting community water park design that includes the following amenities:

- Wave pool – in a bow tie configuration
- Water slide complex with a 35-foot tower and five water slides
- Leisure pool with interactive play structure

Observations include:

- The configuration is interesting with three separate pools with each on the smaller side, with a significant amount of space between and surrounding each pool.
- The facility operates a breakeven point, with revenue offsetting expenses.
- The revenue per attendee is very positive at \$9.61 per visit.
- While being brand new and having water park amenities, the seasonal attendance at 25,675 is approximately the same as Indian Trails Aquatic Center- which seems a little light. This could be due to the number of other city-operated

facilities and potentially being perceived as a remote location on the west side of the city.

### Gardner, Kansas Aquatic Center



| City Pop. | Total Water Area | Water per capita | Facility Area | Attendance | Facility Expenses | Expenses / sf water | Facility Revenue | Revenue / attendee | Cost Recovery |
|-----------|------------------|------------------|---------------|------------|-------------------|---------------------|------------------|--------------------|---------------|
| 21,100    | 21,500 sf        | 1.02             | 21,500 sf     | 65,000     | \$525,000         | \$24.42             | \$413,000        | \$6.35             | 79%           |

This facility contrasts the Midwest Health Aquatic Center in that it includes a large water surface area fit into a confined space, with lesser space in and around the pools. The facility is located in a far southwest corner of the Kansas City metro, with little or no competing facilities in the area. Amenities within the facility include:

- Long lazy river
- Large shallow area with interactive play structure
- Water slide tower with three slides
- Separate toddler pool
- Separate lap pool with diving

Observations include:

- Facility includes large water surface area and many features in compact footprint. Some like configuration due to connectivity and intimacy of pools. Others find it too busy and difficult to scan the facility, particularly staff and lifeguards.
- Due to the popularity of the facility, and limited nearby choices, the season attendance of 65,000 is three times Gardner's population of 21,000.



- Despite the high attendance, the facility is not able to operate at 100% cost recovery. The facility design requires more staffing and maintenance efforts, making it more expensive to operate.

### The Bay Aquatic Center – Kansas City, Missouri



The Bay Aquatic Center is an interesting community water park with many amenities. The water surface area is 16,300 s.f. and includes the following amenities:

- Separate leisure pool, lap pool, and lazy river
- Interactive play structure with dumping water feature
- Water slide tower with body flumes and tubes
- Swirl slide with catch pool
- Lazy river with waves
- Flowrider surf machine
- Adjacent splash pad

While the facility is very interesting, its attendance suffers greatly from the location and demographics of surrounding community. The result is that it does not perform similarly as typical community water parks.

### Summit Waves – Lee’s Summit, Missouri



| City Pop. | Total Water Area                               | Water per capita                     | Facility Area | Attendance | Facility Expenses | Expenses / sf water | Facility Revenue | Revenue / attendee | Cost Recovery |
|-----------|--|--------------------------------------|---------------|------------|-------------------|---------------------|------------------|--------------------|---------------|
| 96,076    | 19,500 sf<br><i>(25,500 sf with expansion)</i> | 0.20<br><i>(0.27 with expansion)</i> | 19,500 sf     | 87,500     | \$615,000         | \$31.54             | \$650,000        | \$7.43             | 106%          |

Summit Waves is a successful facility that experiences large attendance and positive financial operations. The signature amenity for the water park is the lazy river, which is one of the largest in the metro area. It is the only facility for a city population of nearly 100,000. Because of this, the season attendance is substantial at 87,500 visitors during the summer. The water surface area is currently 19,500 s.f., not including an estimated 6,000 s.f. wave pool addition by 2020, and includes the following amenities:

- Large lazy river
- Toddler pool with an interactive play structure
- Two water slides with a plunge pool
- Six-lane lap pool with one-meter diving boards

Observations include:

- Summit Waves benefits from the closing of Super Splash in Raytown, and from the lack of interest and attendance for The Bay Water Park nearby in Kansas City, Missouri.



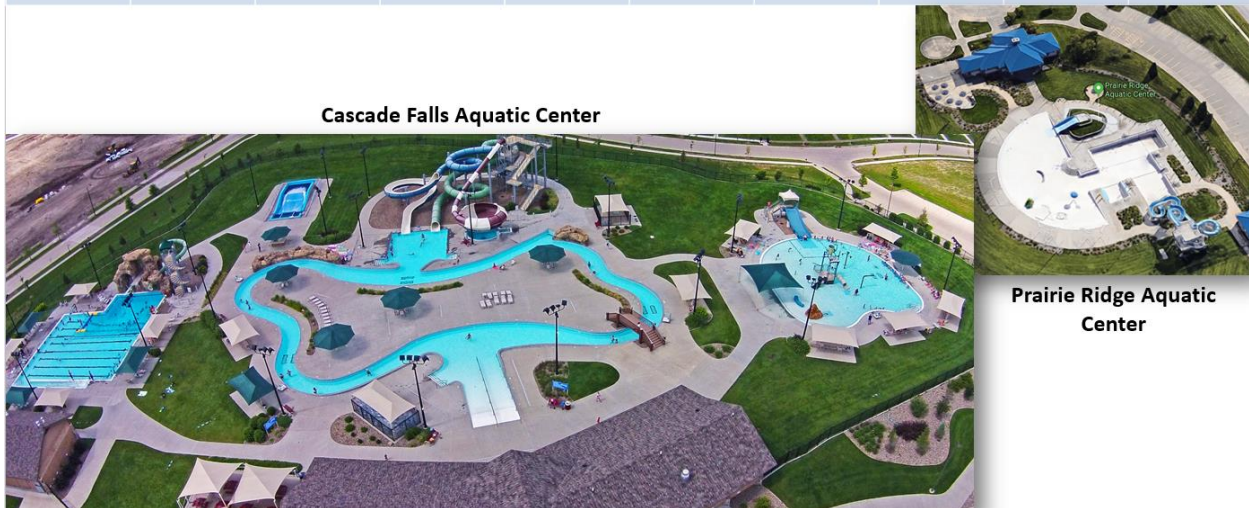
- The facility seems to be missing 3 ft. deep water that kids can just hang out and swim
- The could use more shade and chairs based upon the large amount of visitors
- Patrons complain about the lengthy distance from the lounge spaces and shallow water to the concessions and restrooms
- The City of Lee’s Summit is in process of expanding the facility to add more amenities and accommodate more visitors

### Cascade Falls/Prairie Ridge Aquatic Center – Ankeny, IA

In addition to the facilities toured by Waters Edge and the Lenexa Staff, we identified a community with a similar population and geographic circumstance as Lenexa. The City of Ankeny operates two outdoor aquatics facilities, which operate at a positive cost recovery. The similar community characteristics include:

- Similar city population of 58,000
- The City of Ankeny is rapidly growing suburb on the outskirts of a metro area, although the Des Moines metro area population is approximately 1/3 of the Kansas City metro population base
- The city of Ankeny operates more than one aquatic center

| City Pop. | Total Water Area | Water per capita | Facility Area | Attendance | Facility Expenses | Expenses / sf water | Facility Revenue | Revenue / attendee | Cost Recovery |
|-----------|------------------|------------------|---------------|------------|-------------------|---------------------|------------------|--------------------|---------------|
| 58,300    | 34,334 sf        | 0.59             | 21,400 sf     | 160,000    | \$905,148         | \$42.30             | \$1,249,771      | \$7.81             | 138%          |



Positive Attributes/Best Practices for the Ankeny Aquatics Facilities include:

- The facilities include a wide variety of modern aquatic center and water park features



- There are competing facilities in the metro area, but most are located inward toward the center of the metro population. Fewer are located outward where new growth and development is occurring. This is similar to conditions for Lenexa.
- The overall water surface area per capita at 0.59 square feet of water per capita is less than for Lenexa's current condition of 0.82 square feet of water per capita.