Denton, Texas

Aquatics Master Plan

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CITY OF DENTON

Adopted:

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Executive Summary

Introduction

Aquatics are an important part of recreation programming nationwide and particularly within the City of Denton. Between the Denton Natatorium and Water Works Park, the Civic Center Pool and the Carl Gene Young Sprayground, total visitation exceeds 150,000 people per year who utilize these aquatic facilities for fitness, wellness, instructional programs, competitive swimming, diving and water polo and recreational purposes. Swimming pools often lead the list of desired public recreational amenities in citywide park plans. Additionally, a strong aquatics program is vital for all children and adults to learn to swim–especially in a community adjacent to rivers and lakes.

Aquatic Approaches

Historically, the approach to providing aquatic services within a community included one of the three following scenarios:

Neighborhood Approach – Offer numerous smaller facilities with one body of water for each neighborhood.

Community Approach – Offer two to three medium facilities each with multiple bodies of water located throughout the community.

Central Approach – Offer one centralized facility with several bodies of water to serve the entire community.

Old National Recreation and Parks (NRPA) Standards called for one pool per 20,000 to 25,000 residents (neighborhood approach). Usage of pools (especially small neighborhood pools) declined dramatically in the late 1970s. As new aquatic design trends began to take shape in the late 1980's to early 1990's, a new approach to systemwide aquatic planning had to follow.

The "Gold Standard" for municipal aquatics today consists of:

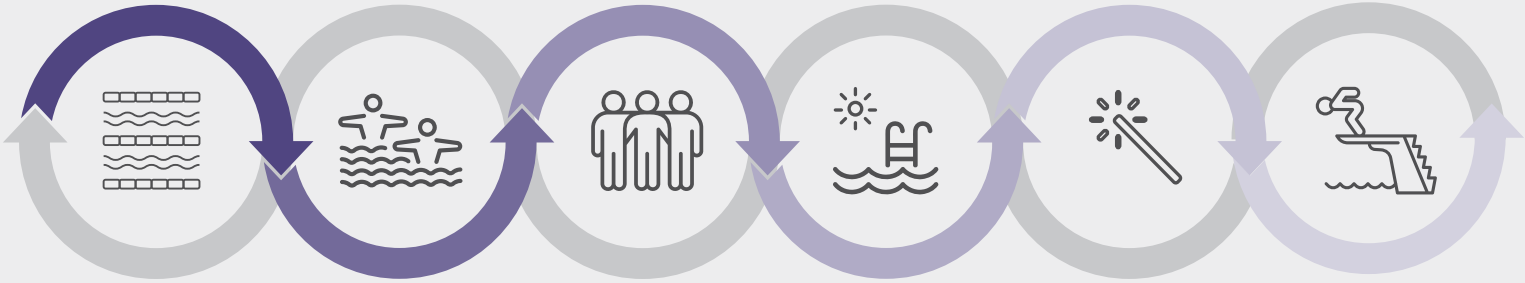
One indoor/outdoor centralized mega recreation center with indoor competition and wellness pools for every 100,000 to 400,000 residents.

Provide one seasonal outdoor family aquatic center with recreational amenities (i.e., waterslides, lazy rivers, and children's play structures) plus lap lanes for every 50,000 to 100,000 residents.

The City of Denton currently provides its citizens with aquatic offerings from four different facilities: the Natatorium, Water Works Park and Civic Center Pool and Carl Young Sr. Sprayground. The City of Denton also has a unique partnership with the Denton Independent School District which allows for shared use of the Natatorium. An increase in number of high schools utilizing the facility has put a strain on providing enough programming time for all users of the facility.

Therefore, the City of Denton contracted with Kimley-Horn and Counsilman-Hunsaker to prepare a new Aquatics Master Plan to guide the future development of the city's aquatic facilities.

Primary Aquatic Needs



1. **Indoor Lap Lanes**
2. **Indoor programmable water for fitness and lessons**
3. **Community access to year-round aquatics**
4. **Address aging Civic Center Pool**
5. **Enhanced offerings at Water Works Park**
6. **South side of Denton access to year-round and seasonal aquatics**

- Based on the demographic and benchmark analysis and comparing to industry standards for the number and type of aquatic facilities, the City of Denton should have at least two aquatic facilities that are appropriately located to serve the highest density of its population and offer both indoor and outdoor aquatic experiences.
- The amount of indoor lap lane capacity and community access is a high priority within the City of Denton and is currently underserved with the size and location of the existing Natatorium. As Denton ISD is a primary user of the existing lap/competition pool during the morning and afternoon hours for practices, and several nights per week for swim meets and water polo matches, this takes the pool offline for community use for a good portion of each day.
- The current City of Denton aquatic system operates at a subsidy which is very common for municipal aquatics. Any addition of indoor aquatics will require additional subsidy, while an expansion to Water Works Park would be seen as cost-neutral or generating excess revenue when compared to the new operational expenses.
- Based on their age, a continued reinvestment in the Natatorium, Water Works Parks and the Civic Center pool will be necessary to continue offering high-quality aquatics programs and experiences to the residents of the City of Denton.
- The aquatics program operations and offerings between the City of Denton and Denton ISD Programming should operate without conflicting with one another. The primary way to mitigate this is to expand the number of indoor lap lanes in the City of Denton which could be accomplished with an expansion to the existing natatorium, a city-owned new indoor aquatic center on the south side of Denton or with DISD constructing a district natatorium that consists of a 50-meter by 25-yard competition pool.
- The City of Denton currently has two well-used seasonal aquatic facilities with the Civic Center Pool generating over 37,000 visits in 2023 and Water Works Park generating over 80,000 visits per year. A recent facilities assessment conducted by the City of Denton has projected a remaining lifespan of 5 years to the Civic Center Pool. If the City plans to take the CCP offline based on this lifespan, then the importance of adding another outdoor aquatics center in Denton moves up the priority list.

- The facilities assessment also projected up to $2M in needed renovations for the Denton Natatorium. This would address the pool mechanicals systems and the natatorium air handling/dehumidification system, but not the functionality of the indoor pools or any additions to the Natatorium to increase lap and program capacity.
- The south side of Denton is currently underserved for both indoor and outdoor aquatic offerings and has a high density of the City's population and areas of current and projected growth that will continue from 2023 to 2026 and beyond.
- In addition, Denton ISD is currently increasing its student population by an average of 1,000 students per year. Couple this with the planned addition of 2 new high schools and the plan to continue competitive swimming, diving and water polo, the demand for lap lanes will only increase and is something that the existing natatorium cannot support at its current size and operational hours. Removing community access and usage will be necessary to meet the demand for the high schools' aquatic sports teams. In addition, the 1-meter and 3-meter diving boards no longer meet depth standards for competitive diving making the Natatorium unusable to host district and regional UIL competitions.
- Continuing to explore capital and operational partnerships with Denton ISD, the University of North Texas and Texas Woman's University will help any of these single entities from being the sole funding agent for a future aquatic center.
- One of the initial focuses of the aquatic master plan centered on the possibility of a continued partnership between the City of Denton and DISD, and future partnerships with UNT and TWU. Due to the existing number of competitive aquatic sport athletes in DISD and the expected future growth, a key recommendation is for DISD to construct its own indoor aquatic center with a 50-meter by 25-yard competition pool along with a shallow water training and instruction pool.
- The main priorities for the City of Denton to expand their aquatic facilities consist of the following:
    - Address the lack of aquatics on the south side of Denton with an indoor/outdoor aquatic facility. The indoor aquatic area necessitates a minimum of an 8-lane lap pool with the possibility of including a 50-meter pool dependent on partnerships with DISD, UNT or TWU. The programming and recreation pool should be 4,000 to 5,000 square feet in size and include areas for aquatic programming (depths of 3'0" to 5'0") and recreational amenities such as a children's area, current channel and waterslide tower.
    - Plan for an addition to the Natatorium to include a 50-meter by 25-yard competition pool with diving to the northeast of the existing indoor pool. This area should include additional locker rooms and spectator seating for 500 to 1,000. While the location is not convenient for the four existing high schools, this is the most efficient way to get an indoor 50-meter pool to alleviate the capacity issues faced with the existing indoor pool.
    - A phased approach should be taken for the expansion of Water Works Park. While the facility is still very popular for residents and surrounding communities during the summer season, reinvestment is necessary to continue offering a quality aquatic experience. The most essential components to incorporate at WWP is a larger, interactive children's play feature and a recreation/program pool to accommodate lesson programing, fitness swimming and general recreation swim. A new admissions building with classroom area should be provided to accommodate the future growth of the facility. Future phases should address the existing waterslide tower and the northeast corner of the park with the addition of a simulated surfing machine. The final phase should focus on the southeast corner of the park which is a prime location for a multi-passenger waterslide tower. Each phase should address shade, restroom access, and upgraded technology. A maintenance facility should be added to the 2400 Long Road property to support staff, storage of equipment, repair bay, and parking for trucks/mowers behind a secure gate.
- The levels for capital investment in the City of Denton's aquatic facilities ranges in cost from $16.2M to $30.4M for indoor aquatic additions to the natatorium, while a new south side aquatic center ranges in cost from $32M to $55M dependent on whether or not the recreational area is enclosed for year-round use. The initial addition to Water Works Park is projected to cost $14.9M. *Figures are as of estimated costs in May, 2023.
- Given the current construction climate, close attention should be paid to the rising cost of construction for aquatic center projects. A project of this scale could have a design phase that lasts 12 months so the earliest this project could break ground if design started today would be mid-2024. An escalation tool should be used to allocate enough resources for the entirety of the project.

Process Overview

The scope of this Citywide Aquatic Facilities Master Plan 2023 is to identify the aquatic needs for the City of Denton, TX. This study is based on extensive research through the following processes:

Task 1: Data Collection and Demographics

Existing facilities were evaluated to determine needs based on age, use and condition.

Demographic research was conducted including population, age distribution, income and economic considerations that could affect the future viability of the aquatic facilities.

Surrounding area aquatic providers in similar sized communities were studied to use as a benchmark for future considerations:

Task 2: Goals, Objectives and Public Meetings

- Stakeholder Meetings (9/29/2022, 11/30/2022, 1/9/2023, 9/14/2023)
  - Community Aquatic Users
    a. Denton ISD
    b. University of North Texas
    c. Texas Woman's University
  - City of Denton Aquatic Operations Staff
  - City of Denton Parks and Recreation Staff
- Public Meetings (November 2022, January 2023 and August 2023) and Online Surveys
- Understand the Community
- Discuss Types of Facilities
- Gather Feedback on Needs
- Special Events and through Community Engagement

Task 3: Conceptual Designs

Items from needs assessment were incorporated into conceptual designs as a solution to meet identified needs. Solutions were prioritized based on information gathered in Tasks 1 and 2.

Task 4: Final Plan / Site Programs

- Conceptual Designs and Cost Estimates.
- Financial Impact Study:
  - Expenses
  - Revenue
- Implementation Scenarios.

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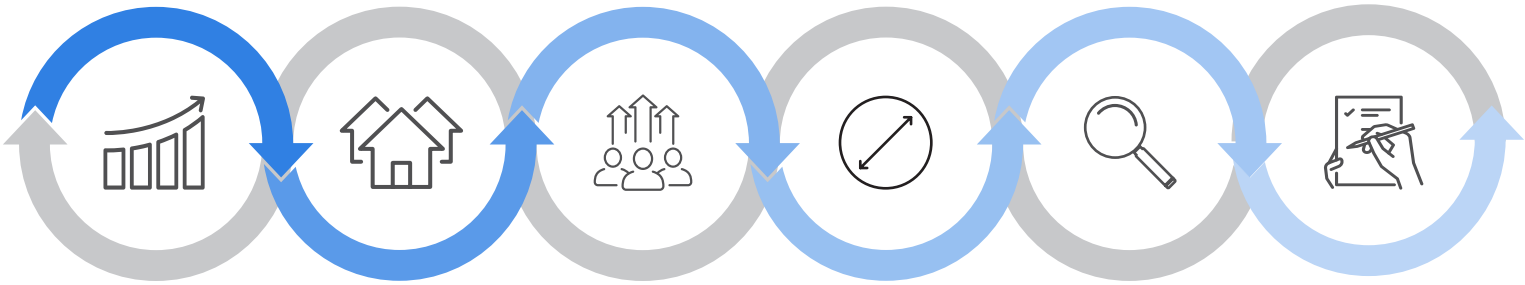
Section 1:
Market Analysis

Key Market Factors



1. **Projected Household Growth Rate of 10.8% to 2026**
2. **Over 55,000 households**
3. **Current population of 151,000 with growth rates of 9.6% projected through 2026**
4. **Segments of Denton's south side not within the daily usage service area of the Nat and WWP**
5. **Lack of aquatic offerings south of downtown Denton**
6. **Indoor aquatics does not meet industry standards for a City of Denton's size**

Population Growth	2003	2023
City of Denton	93,000	141,780
Denton ISD	Approximately 15,600*	31,771

*Source: Texas Education Agency (TEA)**

Demographics

Factors that can influence attendance include projections for growth/decline of population, income levels, and age groups. Market studies are used to predict how relevant products, services, and fees are to residents. A study of demographic patterns in the area is helpful in projecting usage rates.

The City of Denton has an approximate population of 141,780 (based on 2021 updates to the 2020 census) with growth of an additional 15,000 people expected by 2026. An additional 80,000 people are within the 20-minute drive time market area. The median age (30.2 years) in the City is well below the national average of 37 years old The City has over 55,000 households, 35,000 adults over the age of 55 and over 20,000 children under the age of 14. These are all positive markers when it comes to aquatic programming and analyzing needs for the future of aquatics in Denton. It shows the market has young families that are looking for recreational opportunities, and that there is an active, older adult population that is looking for similar recreation facilities and programs. The median and per capita incomes are both above the national average which shows that there are discretionary dollars to be spent for recreational purposes.

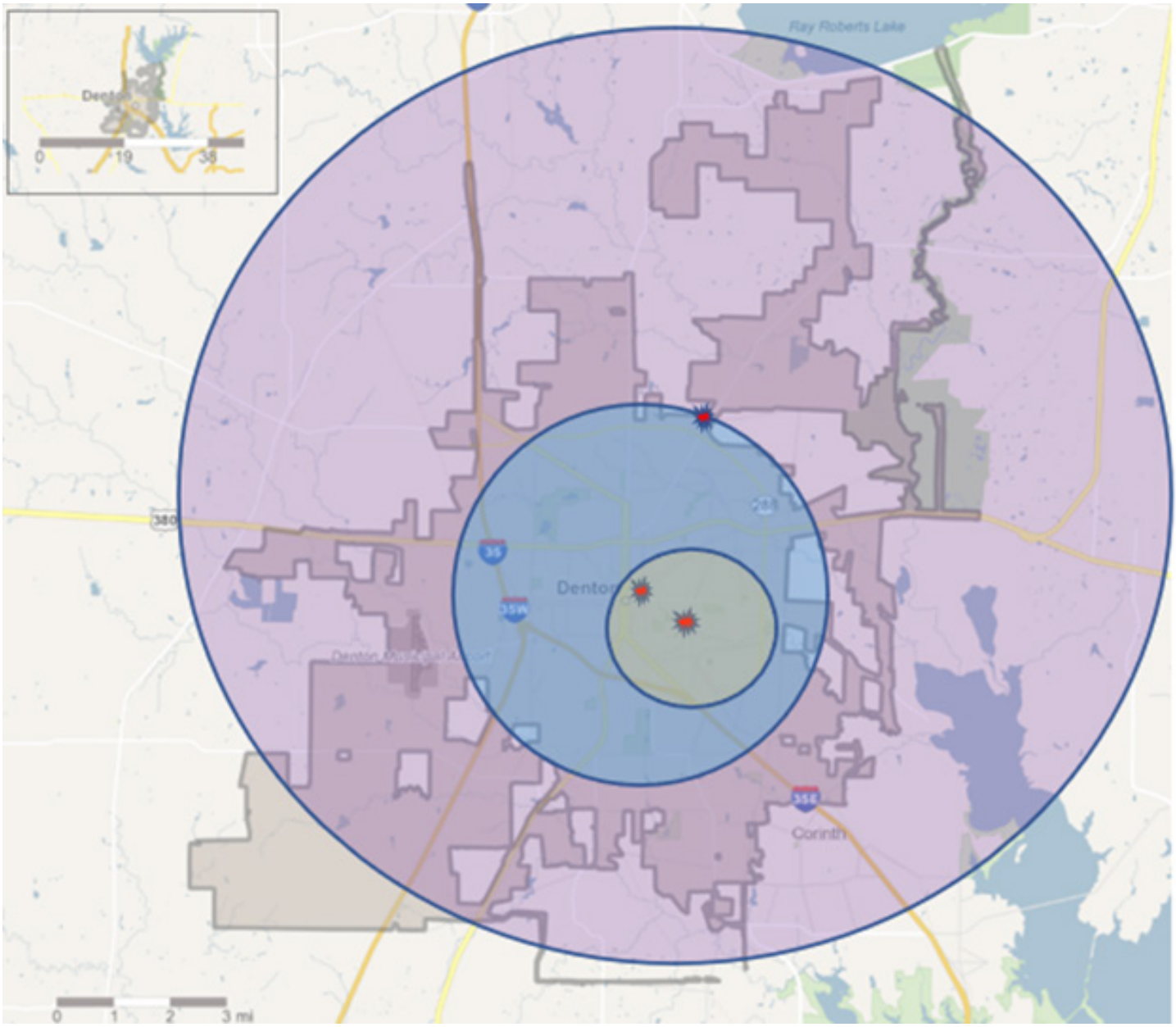
Total Population	**141,780**	**Median Income**	**$62,535**
% Male Population	49.0%	Per Capita Income	$35,097
% Female Population	51.0%	Average Household Income	$87,991
Median Age	30.2	Owner Occupied Housing Units	98.2%
Population Density	1,588.1	Vacant Housing Units	98.2%
Total Households	55,199	Household Growth from 2000 to 2021	71.6%
Average Household Size	2.4	Household Growth from 2021 to 2026	10.8%

Source: www.alteryx.com

Population Density

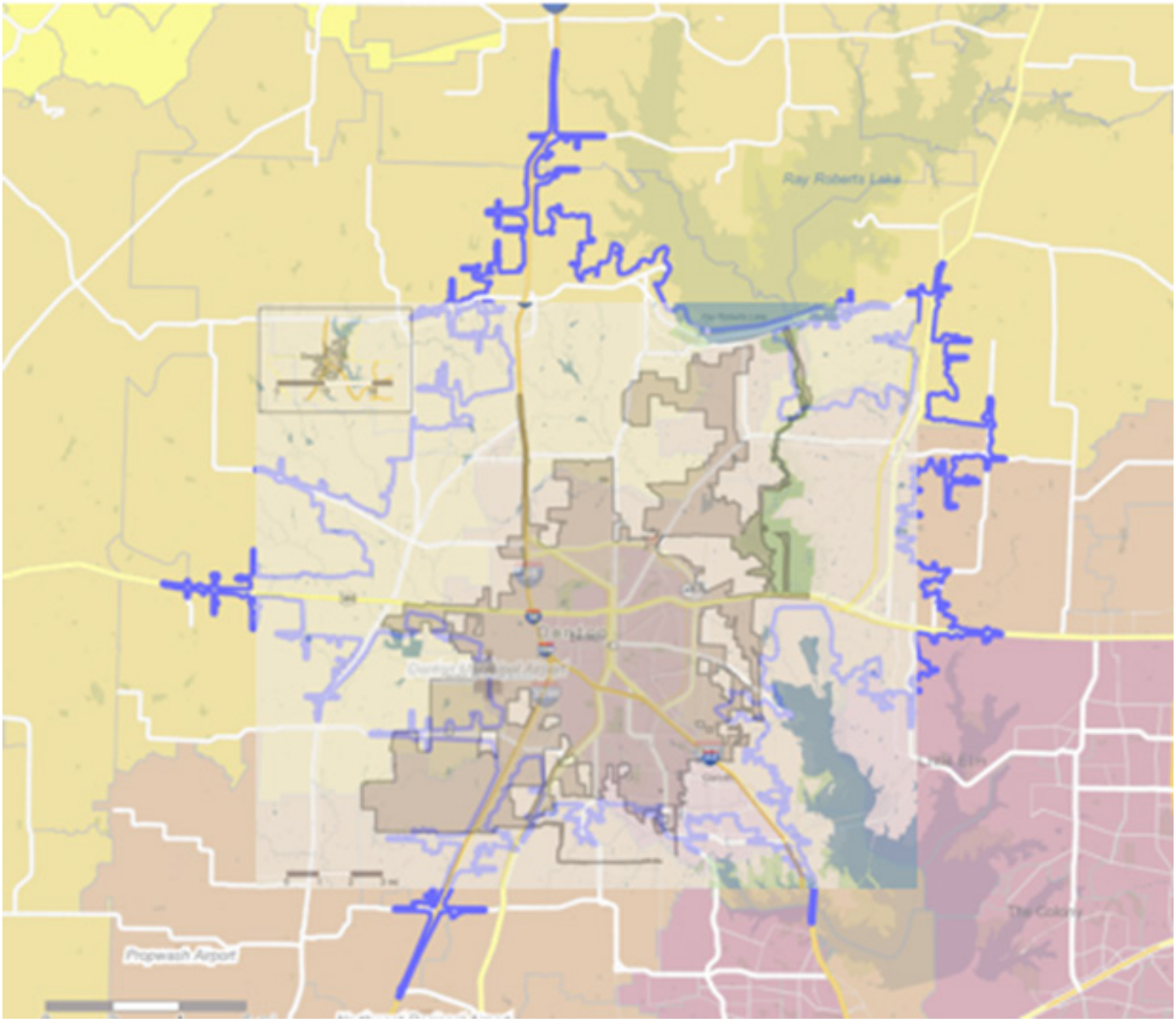
Analyzing drive times to a site is an important step to understand the reach of a particular aquatic offering as it relates to the surrounding demographics. Traditionally, waterpark users will drive further to use a facility that has more offerings than will community-pool, neighborhood pool or indoor aquatic center users. The following are typical drive-times for the different types of aquatic facilities.

- 0 to 5 Minute Drive -Splashpad
- 5 to 10 Minute Drive – Neighborhood Pool
- 10 to 15 Minute Drive – Family Aquatic Center
- 15 to 60 Minute Drive – Waterpark



Service areas for existing Denton aquatic facilities (Natatorium/Water Works, CCP, Sprayground)

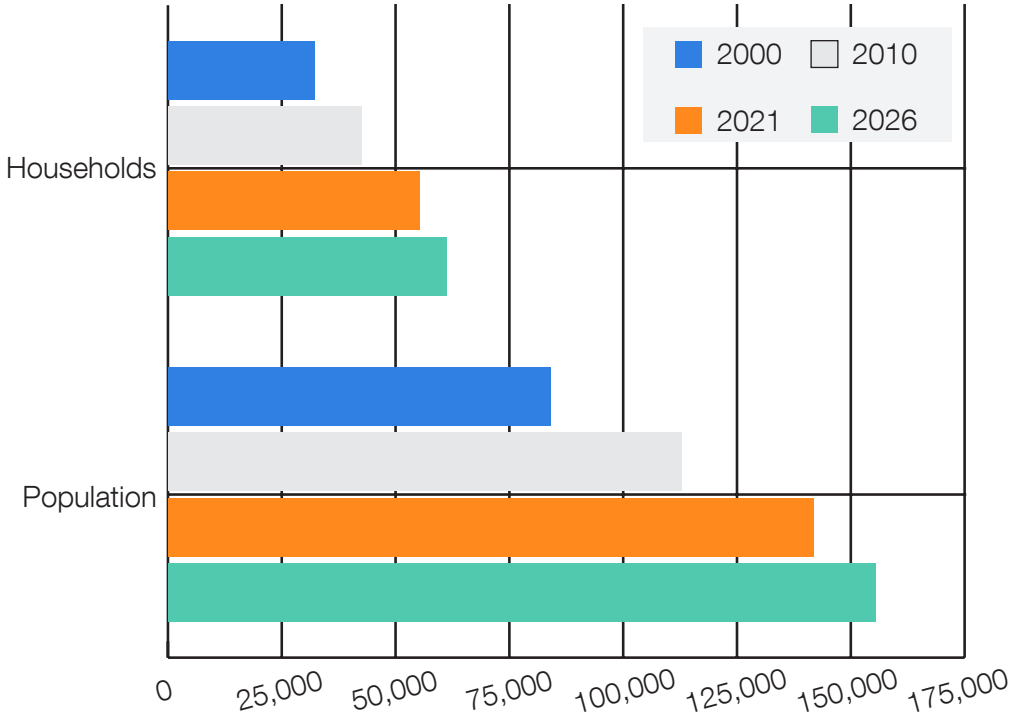
The graphic below details an approximate 20-minute drive time surrounding the existing Denton Natatorium and Water Works Park. The majority of the Denton city limits are within this drive time with the noticeable exception being the southwest corner of the City. And, while most of city is covered within a 20-minute drive time, Counsilman-Hunsaker has found that for daily users of indoor aquatic centers such as the Natatorium, the drive time maximum is closer to 15 minutes. With the Natatorium's location on the north side of Denton, this eliminates a large portion of the population from being within the typical drive time. The darker areas on the map represent the more densely populated areas, while the lighter colors denote areas with less population.



20-minute drive time surrounding Denton Natatorium

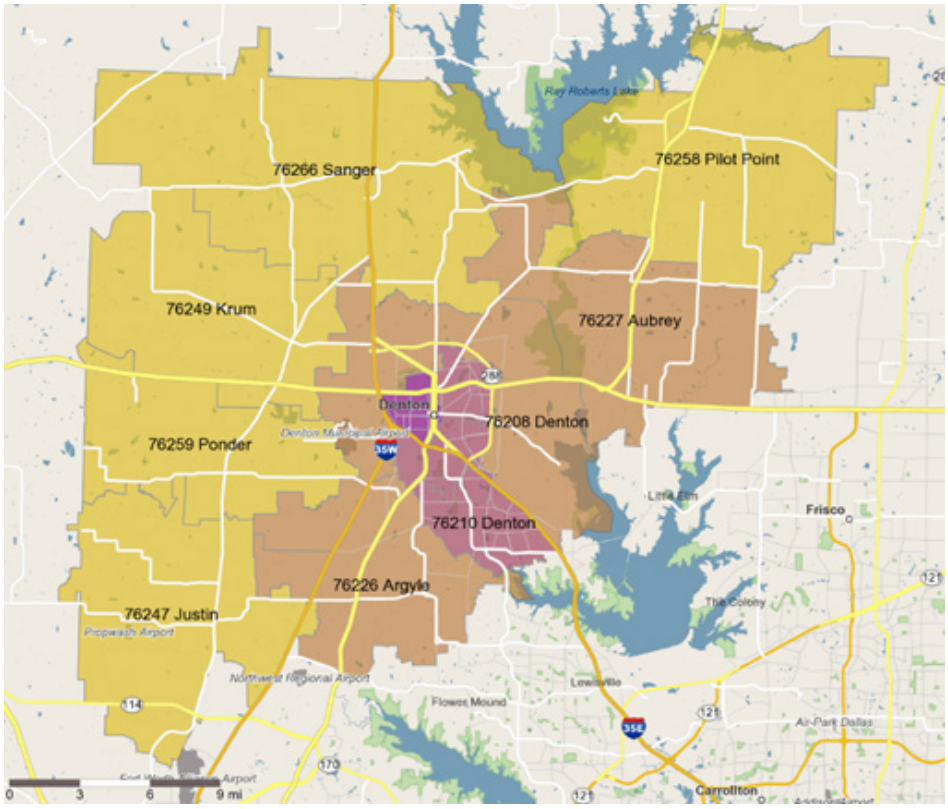
The number of households in the study area in 2000 was 32,158 and changed to 42,443 in 2010, representing a change of 32.0%. The household count in 2021 was 55,199 and the household projection for 2026 is 61,168, a change of 10.8%.

The population in the study area in 2000 was 83,960 and in 2010 it was 112,735, roughly a 34.3% change. The population in 2021 was 141,780 and the projection for 2026 is 155,357 representing a change of 9.6%.



Percent Change

	2000 Census	2010 Census	2021 Estimate	2026 Projection	2000 to 2010	2021 to 2026
Total Households	32,158	42,443	55,199	61,168	32.0%	10.8%
Total Population	83,960	112,735	141,780	155,357	34.3%	9.6%

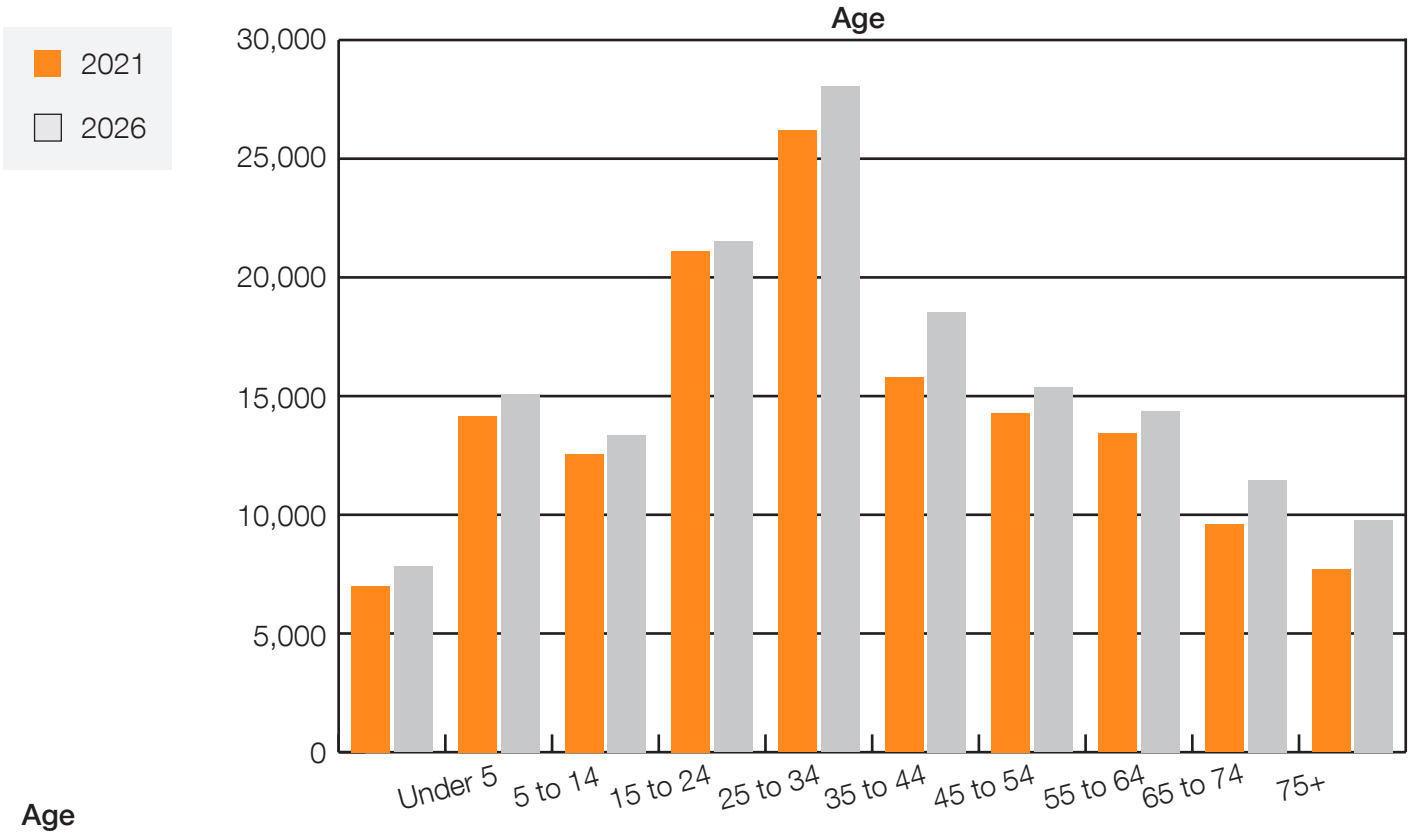


Population density surrounding Denton, Texas

Age Distribution

Current age distribution is another population characteristic used to determine the type and level of use of aquatics programs. Younger age groups require learn to swim space and recreational aquatic amenities. Older age groups require more therapeutic opportunities. The following table provides the number of residents and the percentage of total population for each age group compared to the U.S. column, which identifies the national average.

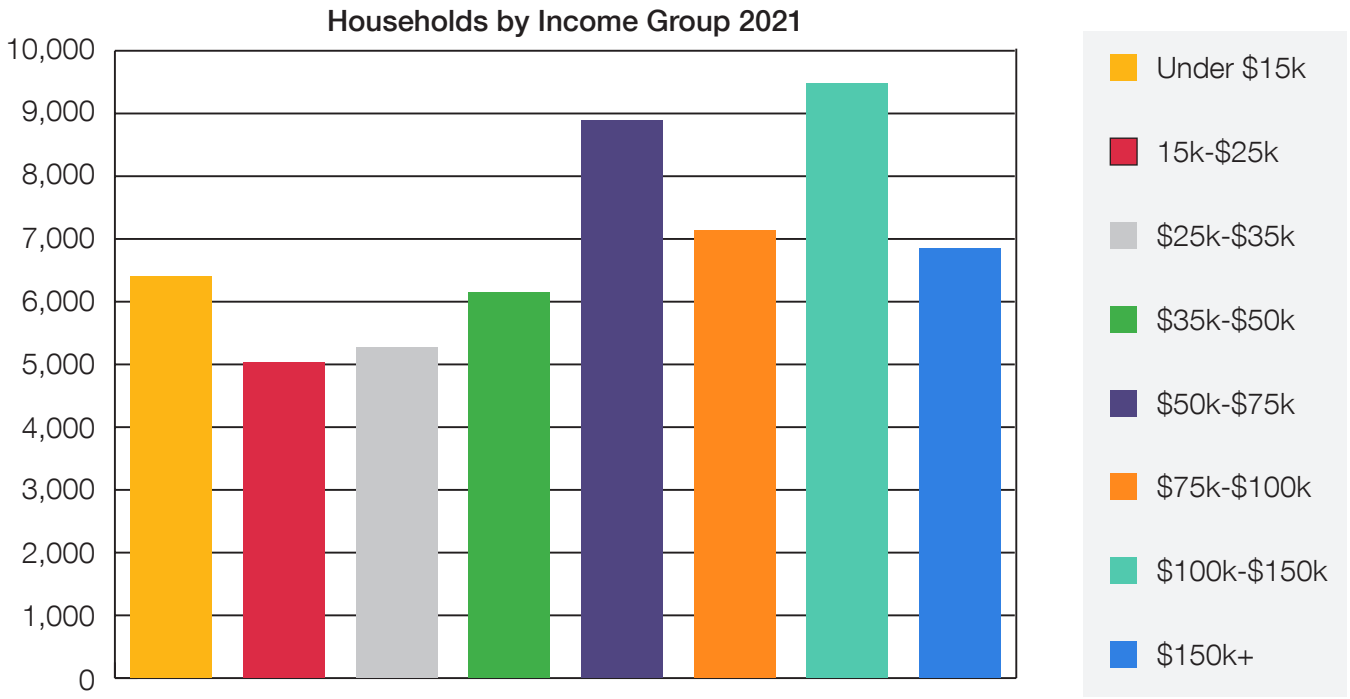
In 2000, the median age of the total population in the study area was 27.0, and in 2010, it was 27.1. The median age in 2021 is 30.2and it is predicted to change in five years to 31.6 years. In 2021, females represented 51.0% of the population with a median age of 30.7 and males represented 49.0% of the population with a median age of 29.8 years. In 2021, the most prominent age group in this geography is Age 25 to 34 years. The age group least represented in this geography is Age 0 to 4 years.



Age Groups	2000 Census	%	2010 Census	%	2021 Estimate	%	2026 Projection	%	Percent Change 2000 to 2010	Percent Change 2021 to 2026
0 to 4	5,190	6.2%	6,845	6.1%	6,996	4.9%	7,818	5.0%	31.9%	11.7%
5 to 14	9,601	11.4%	12,305	10.9%	14,160	10.0%	15,086	9.7%	28.2%	6.5%
15 to 19	7,810	9.3%	10,916	9.7%	12,562	8.9%	13,365	8.6%	39.8%	6.4%
20 to 24	15,357	18.3%	21,051	18.7%	21,117	14.9%	21,524	13.9%	37.1%	1.9%
25 to 34	14,622	17.4%	18,046	16.0%	26,196	18.5%	28,046	18.1%	23.4%	7.1%
35 to 44	11,410	13.6%	12,818	11.4%	15,777	11.1%	18,540	11.9%	12.3%	17.5%
45 to 54	8,467	10.1%	11,574	10.3%	14,287	10.1%	15,372	9.9%	36.7%	7.6%
55 to 64	4,889	5.8%	9,089	8.1%	13,413	9.5%	14,373	9.3%	85.9%	7.2%
65 to 74	3,369	4.0%	5,738	5.1%	9,583	6.8%	11,460	7.4%	70.3%	19.6%
75 +	3,246	3.9%	4,353	3.9%	7,689	5.4%	9,773	6.3%	34.1%	27.1%

Income

In 2021 the predominant household Current Year income category in this study area is $100K - $150K, and the income group that is least represented in this geography is $15K - $25K.



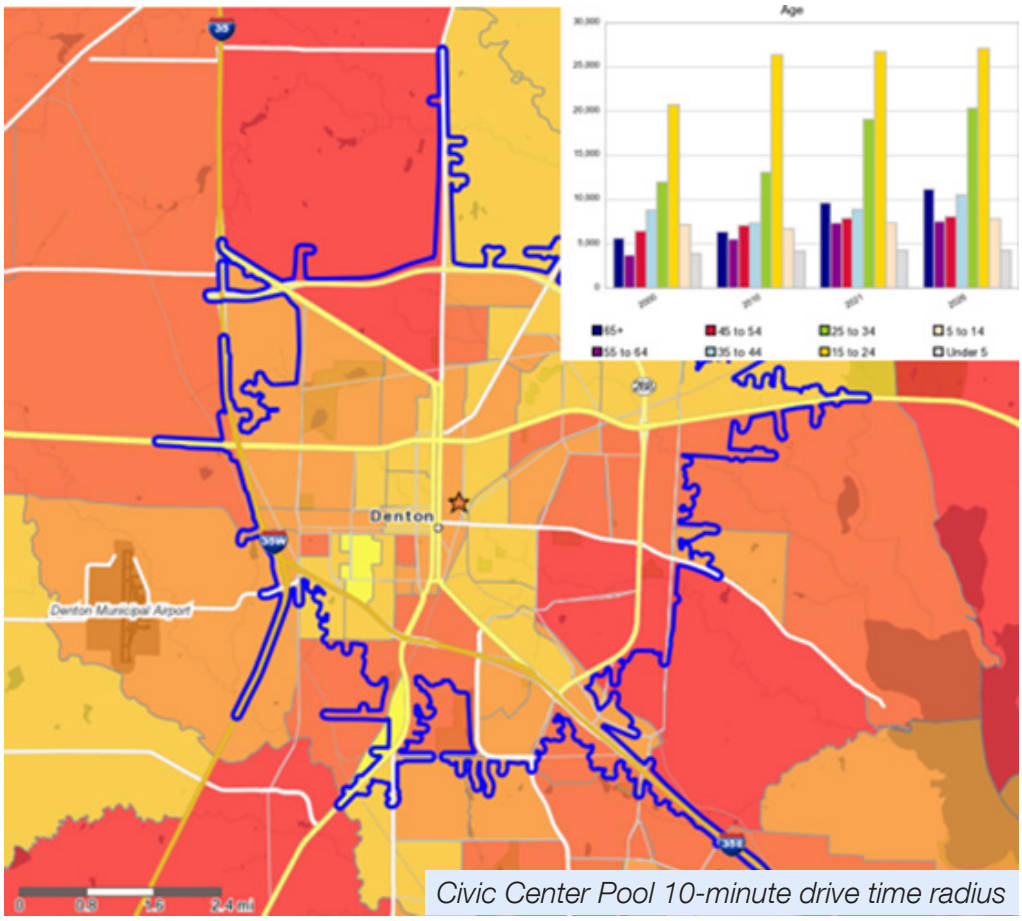
	2000 Census	%	2010 Census	%	2021 Estimate	%	2026 Projection	%	2000 to 2010	2021 to 2026
$0 - $15,000	6,809	21.2%	6,413	15.1%	6,399	11.6%	6,685	10.9%	-5.8%	4.5%
$15,000 - $24,999	4,851	15.1%	5,416	12.8%	5,033	9.1%	5,343	8.7%	11.6%	6.2%
$25,000 - $34,999	4,226	13.1%	4,725	11.1%	5,275	9.6%	5,659	9.3%	11.8%	7.3%
$35,000 - $49,999	4,875	15.2%	5,712	13.5%	6,147	11.1%	6,635	10.8%	17.2%	7.9%
$50,000 - $74,999	5,499	17.1%	7,196	17.0%	8,882	16.1%	9,373	15.3%	30.9%	5.5%
$75,000 - $99,999	2,649	8.2%	5,010	11.8%	7,129	12.9%	7,560	12.4%	89.1%	6.0%
$100,000 - $149,999	2,133	6.6%	5,264	12.4%	9,484	17.2%	11,392	18.6%	146.8%	20.1%
$150,000 +	1,132	3.5%	2,707	6.4%	6,850	12.4%	8,522	13.9%	139.2%	24.4%
Average Hhld Income	$49,262		$67,789		$87,991		$93,362		37.6%	6.1%
Median Hhld Income	$35,535		$47,137		$62,535		$66,034		32.7%	5.6%
Per Capita Income	$18,868		$26,479		$35,097		$37,537		40.3%	7.0%

Civic Center Demographics

Even though the attendance at the CCP has declined in recent years, it does function as a service provider to all income and socioeconomic levels and is the only aquatic facility with access to public transportation.

While two-thirds of the City's population is within a 10-minute drive of the CCP, the majority of the population base within that area is not the typical target demographics for a seasonal outdoor swimming pool. The majority are 1 to 2 person households with a small percentage of children under the age of 14, particularly within the 5-minute drive-time radius.

5 Minute Drive	VS	**10** Minute Drive
20,000 people		Projections of 97,000 people within 10-minute drive by 2026
70% are 1 to 2 people households		12,500 children under age 14
Less than 3,000 children under age 14		53% of population never married
60% of households make less than $50,000		



Civic Center Pool 10-minute drive time radius

Aquatics Benchmarking

As part of the aquatic master plan process research was completed in regard to the surrounding cities and their aquatic facility types and offerings. This benchmarking exercise looks at other cities total population, the school district population, number of indoor and outdoor aquatic facilities, amount of land dedicated to outdoor aquatics and total number of public accessible lap lanes. Utilizing this data, a comparative analysis was performed to see how the City of Denton's aquatic facilities compare based on the above categories. In terms of outdoor aquatics, the City of Denton was ranked at the top of the list based on acreage of outdoor aquatics per population. However, on indoor aquatics the City had one of the fewest lanes for the student population and ranked in the middle for lanes per general population. (Note: the amount of available lanes does not indicate lanes available during preferred hours.)

City	Population	ISD Student Population	Indoor Aquatics (lap)	Indoor Aquatics (Program/ Rec)	# of Indoor 25Y Lanes	Population per Lane (publicly accessible)	Student Population per Lane	Community Recreation/ Aquatics Center	Outdoor Aquatics	Acres of Public Outdoor Aquatics	Population per Acre
Denton	155,357 (19,006)	33,839	1	1	10	15,535	3,018		2	5.16	30,108
Arlington	392,786	56,783	2	2	33	11,903	2,839	X	6	6.59	59,606
Flower Mound	89,545 (314,974)	49,253	1	1	34	8,140	1,449	X	1	0.87	102,925
Frisco	229,580	66,451	1	1	44	57,395	1,510	X	1	2.65	86,634
Garland	247,910 (303,026)	52,355	1	1	24	0	2,181		4	3.87	64,059
Grapevine	57,270 (86,198)	14,040	1	1	13	19,090	1,080	X	2	1.52	37,678
Lewisville	124,334 (314,974)	49,253	1	1	24	41,445	2,052	X	1	1.36	91,422
McKinney	228,266	24,500	1	2	11	20,751	2,227	X	3	2.03	112,446
Northwest ISD	101,401	27,612	1	1	24	0	1,151		N/A	N/A	N/A
Rockwall	60,369	16,859	1	1	24	0	702		2	0.49	123,202

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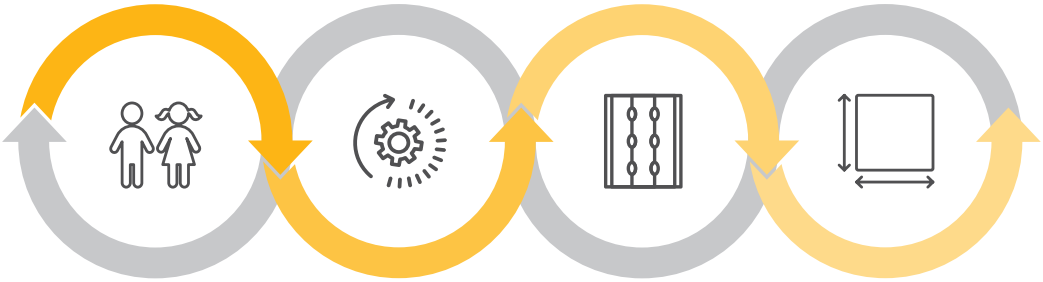
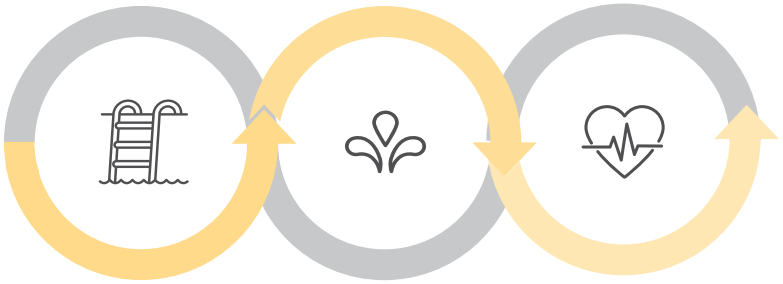
Section 2: *Community Engagement*

Community Input



1. Water Works Park needs enhancements for children and recreational water along with more shade and seating options
2. Civic Center bathhouse needs upgrading
3. Number and availability of indoor lap lanes is lacking
4. Natatorium needs larger swim lesson and adult fitness areas



5. Indoor 50-meter pool with Diving is preferred, similar to surrounding cities and school districts
6. Complement CCP and WWP with spraygrounds around the City of Denton
7. Active adults aquatic options could be added to future active adult center to support programs and needs for that age group which has increased

Public/Stakeholder Meetings and Community Surveys

The goal of "Community Mining" uncovers valuable information within the community while prospecting opportunities. This internal inventory assesses how the community and staff view and ultimately use the recreation offerings in the area. Community input is important to understand, as civic spaces are extensions of the people who use them. Generating use of the programs and activities in the district tends to come when clientele feel they are being listened to and reacted to during the course of an operating year. Mining the information reveals every facet of value, identifies which customers and prospects represent the best opportunities, creates an understanding of market potential for each product category, and determines how much market share has already been captured.

Stakeholder Meetings were held on: 9/29/2022, 11/30/2022, 9/14/2023

Public Meetings were held on November 10, 2022 and January 12, 2023 and August 31, 2023 to receive input from the Denton community.

SWOT Analysis Discussion

Strengths

Good demographics and income levels.

Strong community commitment to aquatic recreation.

Joint use agreement with Denton ISD.

Weaknesses

Current aquatic system operates as a subsidy.

Facilities are aging and will need investment.

Not enough programmable water surface area at the Natatorium.

Not enough indoor lap lanes.

Not enough space for teams/staff/ growth.

Opportunities

Potential partnerships with UNT and Texas Woman's University.

Room to expand at the Natatorium.

Ample park space in the south for a new aquatic center.

Room to expand Water Works Park.

Threats

Investing too much in one facility could limit future opportunities.

Not planning for replacement of aging facilities.

Taking a facility offline before another is ready to oversee continued operations.

Aging buildings/mechanical rooms.

Outdoor comments (Water Works)

- More amenities (shade, seating, waterslides)
- Surfing simulator
- Larger area for smaller children
- Sensory-friendly features
- Open recreational water
- Addition of outdoor lap pool

Outdoor comments (Civic Center)

- Updated bathhouse
- Adjust hours of operation

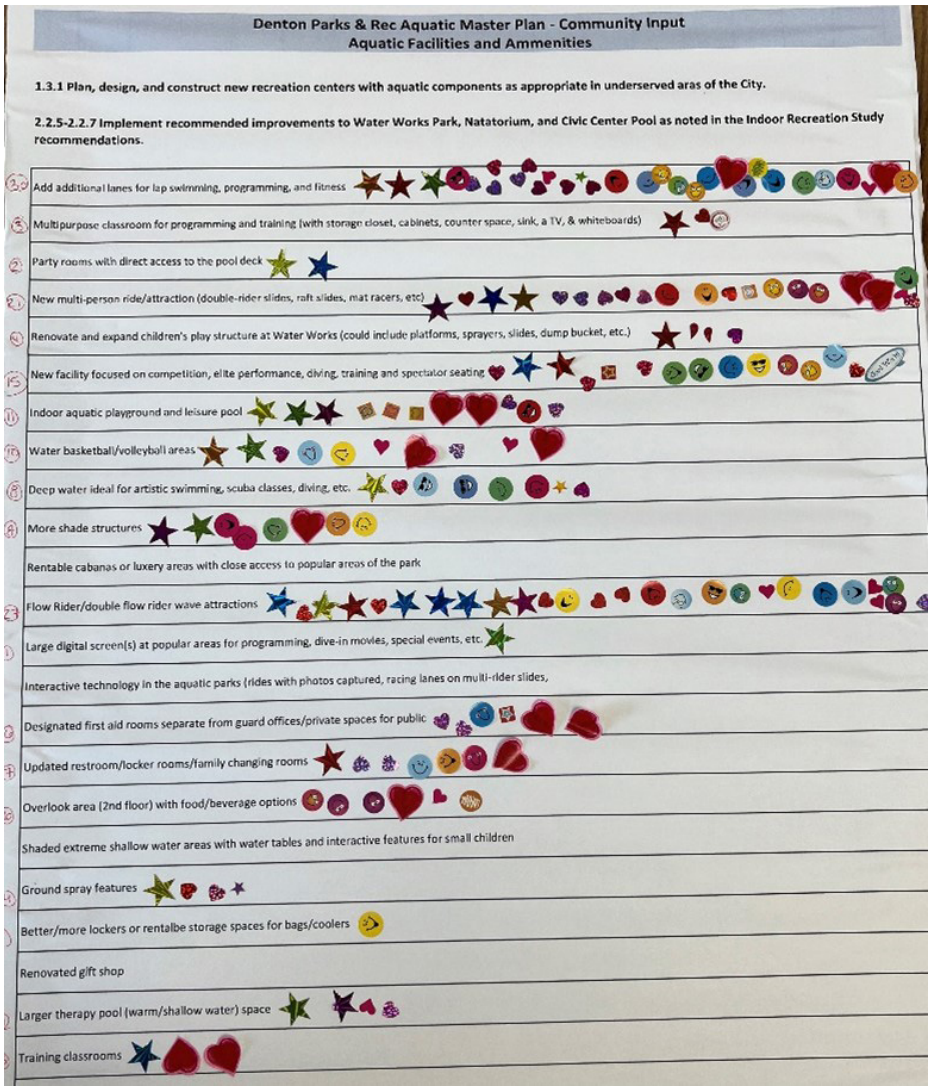
Indoor comments

- More lanes
- Larger warm-water pool
- Diving amenities
- Lack of competitive water
- Larger spectator seating area
- More water space for year round swimming lessons
- Addition of indoor recreational water
- Evening aquatic programs
- Needs better accessibility

General comments

- Need indoor natatorium on Denton's south side
- 50-meter pool with Diving
- Longer hours of operation for aquatic facilities
- Address air quality in natatorium
- Confusion over DISD / public-use schedule
- Additional spraygrounds around Denton
- Separate ISD natatorium
- Lack of aquatic exercise space
- More training classrooms
- Separate ISD lockerooms

The following are the key take-aways from the online community survey, special events, community engagements, and voting boards at the Denton Natatorium:



In meeting with the community stakeholders, several key areas were explored and the ways they impact the City of Denton, the University of North Texas Athletics, Texas Woman's University Athletics and the Denton Independent School District. The following are notes from the stakeholders detailing the existing condition of their aquatics offerings and key needs for the future in order to meet their goals for continued aquatic facility usage and program growth.

City

- City of Denton wants to build relationships within UNT / DISD / TWU and look for all opportunities to partner together.
- Consider an aquatic facility that would drive economic impact to the City of Denton.
- Current need to have more availability of programmable water with the City of Denton.
- Swim lessons at the NAT serve Argyle, Crossroads, Sanger and other surrounding communities.
- Summer swim lessons currently operates at 95% capacity. New growth will increase demand past program capacity.
- City of Denton is currently undergoing a recreational facility assessment study – Recreation users would like to see recreation amenities combined with aquatics, e.g. weight room, child water, fitness rooms, etc.
- Consideration should be given to an active adult aquatics facility – Natatorium is hard to access pools due to current schedule.
- Projected operating budgets should be kept in mind during the planning process so all partners know the expectation for any financial commitments.
- Need for year-round recreational aquatics.

UNT

- UNT Swim and Dive – success is recruiting swimmers based on aquatic facility reputation.
- UNT does not host outside swim meets which means swimmers do not get to see the existing Pohl Recreation Center pool through competitions.
- UNT wants to forge good relationship with City where swim team has space and time to practice that is convenient for UNT.
- UNT Rec Sports have lap and rec pool (not well used) that meets needs of the students and faculty.
- UNT swim and dive athletes prefer to practice in Denton.
- UNT has challenges with diving program as they currently rent pool time from SMU in Dallas
- UNT vision is not to focus on daily monetization of an aquatic facility – has ample space for an aquatic center on university property.
- UNT is open to partnerships with future expansion on existing or new facilities.
- UNT needs team space lounge and meeting rooms.
- Preferred amenities include a separate diving well needed with platform diving, a space for dryland diving equipment and a hot tub.
- A future aquatic facility should include a meet management room.

DISD

- Other surrounding community's school districts have 50-meter competition pools to support school district swim, dive and water polo teams (Rockwall, Garland, Lewisville, Northwest, Arlington)
- The School District has a lack of resources for north side aquatics – Braswell and Guyer are closer in proximity to swim competitively through USA Swimming with other area clubs (Metro, Colony, Lakeside Aquatics).
- Ryan HS and Denton HS have less access to club swimming.
- When the Natatorium opened it was to support 2 high schools – DISD is currently planning for high school #5 to open in 2024 and high school #6 which will be located north of the current natatorium.
- The diving area at the Natatorium is not well-used due to the spatial constraints and no longer meets standards for competitive diving events.
- Denton ISD does not have diving teams for any of the 4 high schools – Divers must dive for a private club to compete.
- DISD has a current growth rate of 1,000 students per year.
- Scheduling at the Natatorium for swim meets (Tuesdays) and water polo games (Friday) limits community uses.
- Additional high school teams will continue to take away lap lanes from the general public.

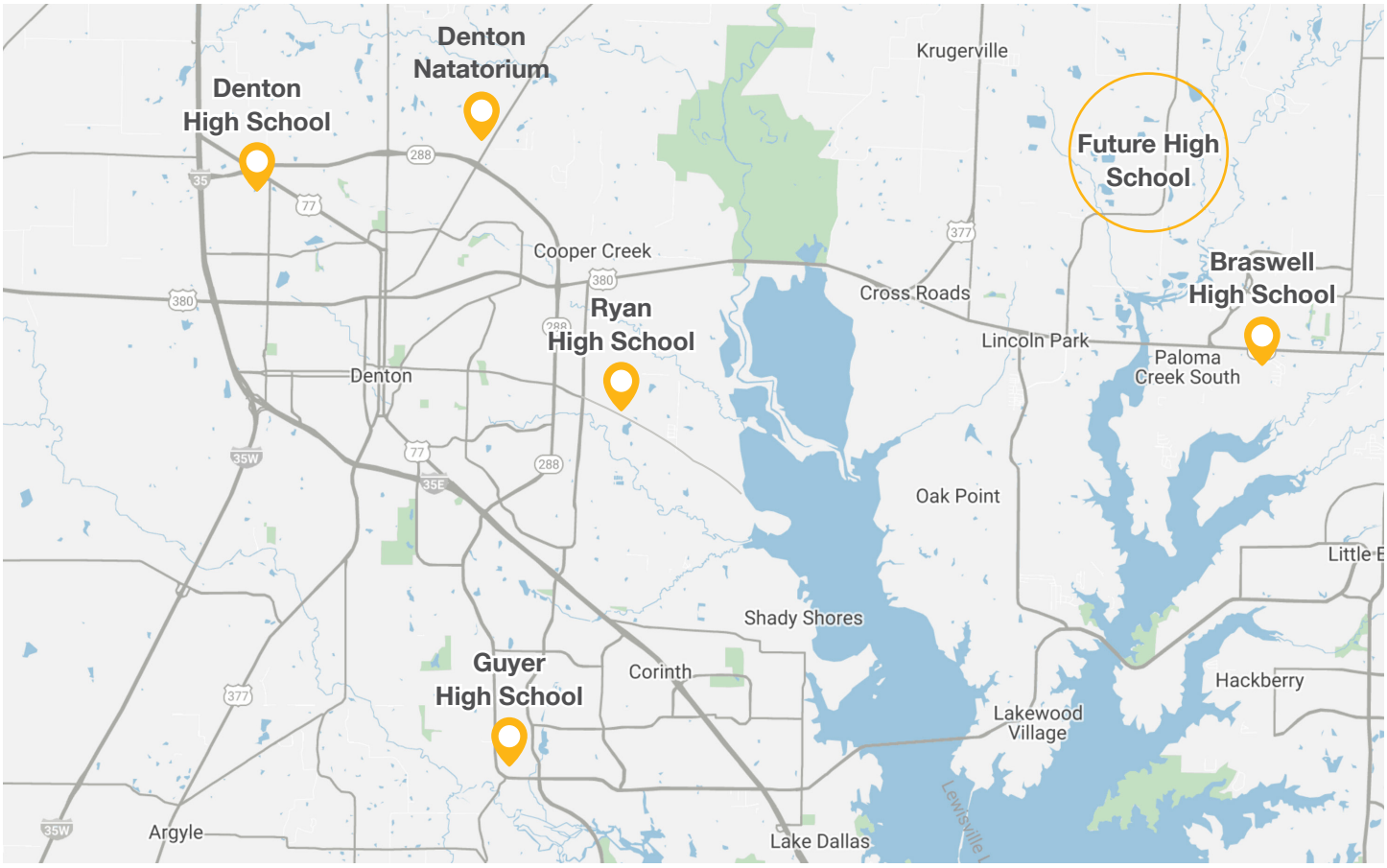
- The Natatorium is a 40-minute bus ride for student athletes from Guyer HS and Braswell HS
- Denton ISD does not currently have an on-site dryland training room for its athletes.
- Challenges exist with the locations of the four existing Denton ISD high schools in regard to having a single aquatic center to support swimming, diving and water polo.
- Inconvenient location of Natatorium to Braswell and Guyer
- Centralized facility brings constraints with school locations.
- Ryan HS is the most centralized school.
- Future possibilities if a new aquatic center is constructed:
  - Continued joint-use agreement with City of Denton new South-Side Aquatic Center
  - Guyer in joint-use agreement with City of Denton new South-Side Aquatic Center
  - New district natatorium constructed on the east-side of Denton for Ryan and Braswell.

TWU

- TWU would like to keep aquatic facilities on campus. A potential partnership could exist for an off-campus aquatic facility where the university would serve as a tenant and rent the facility to host local, regional and national collegiate artistic swimming events.
- TWU pool used by students, artistic swim team, wellness users – hosting conference meet at The Colony – UCLA, Michigan, Stanford, Ohio State coming to Nationals – Hosting in Lewisville at Westside

Existing Facility Challenges

- The Natatorium only has two family changing rooms for parents with young children.
- Additional classroom space is needed at the Natatorium.
- Existing lifeguard office is not large enough to support full staff during summer when both the Natatorium and Water Works are operating.



The following are the key take-aways from the community and stakeholder meetings:

City of Denton

- More programmable water is needed
- Greater capacity for community lap swim
- Better schedule for community use
- Closer access for southside users (Indoor and Outdoor Aquatics) is needed
- Aquatic component at future active adult center
- New additions/ ammenities at current facilities
- More programmable dry land area
- More space for teams/staff

Denton ISD

- Lane capacity for growing district
- Ability for multiple schools to practice at the same time
- Pools to accommodate swim team, diving and water polo
- Need a convenient location to the current four high schools and future high school additions
- Growth capacity for future high school additions
- Elementary water safety education
- Facility to host competitive events

UNT Athletics

- Swim and Dive teams in the same facility is needed
- Preferred facility would be located on campus or in Denton
- Need the ability to host competitive swim and dive events.
- Convenient practice schedule for athletes
- No operational responsibilities if aquatic center is community oriented. Usage would be based on rental fee agreement

Texas Woman's University

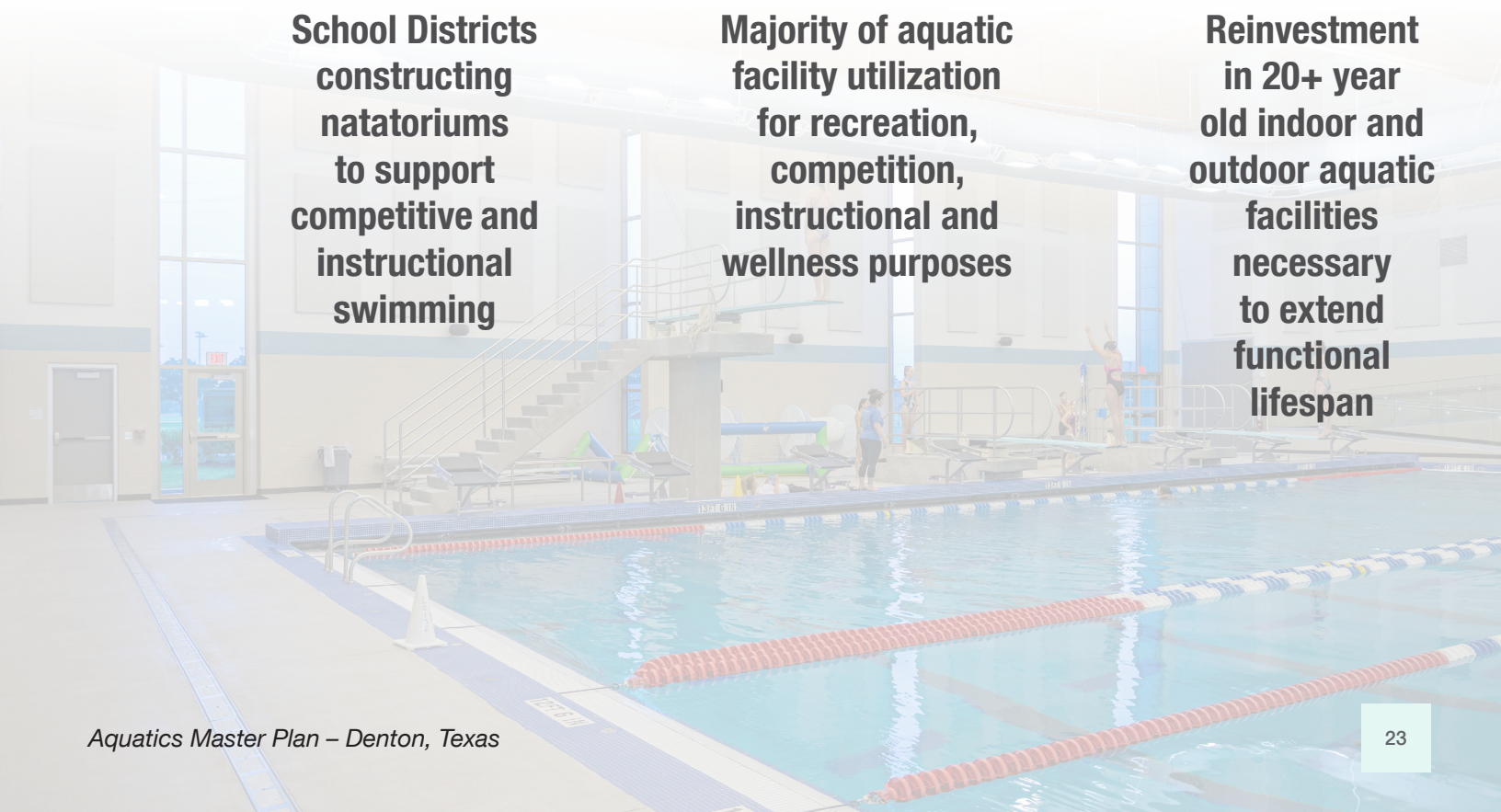
- Need a facility that is designed to support artistic swimming (Deep water).
- Ability to host competitive artistic swimming events
- Support student, faculty and staff wellness

3

Section 3:
Aquatic Trends

Aquatic Trends

1. Continued growth in municipal aquatic facilities
2. School Districts constructing natatoriums to support competitive and instructional swimming
3. Outdoor, seasonal aquatics still very popular and can reach operational sustainability
4. Majority of aquatic facility utilization for recreation, competition, instructional and wellness purposes
5. Replacement of aging outdoor pools with spraygrounds
6. Reinvestment in 20+ year old indoor and outdoor aquatic facilities necessary to extend functional lifespan



Planning for Diverse Users

As we look at citywide aquatic systems, it is important to include a variety of opportunities to meet the needs of all types of aquatic users. Aquatic users are typically defined by four main groups, each with a different needed configuration for aquatic spaces and different water temperatures. These uses and their characteristics are as follows:

Recreation (warmer and shallower water with vertical water sprays, toys, and slides)

Lesson/Programs (warmer water with a variety of depths for instructional programs)

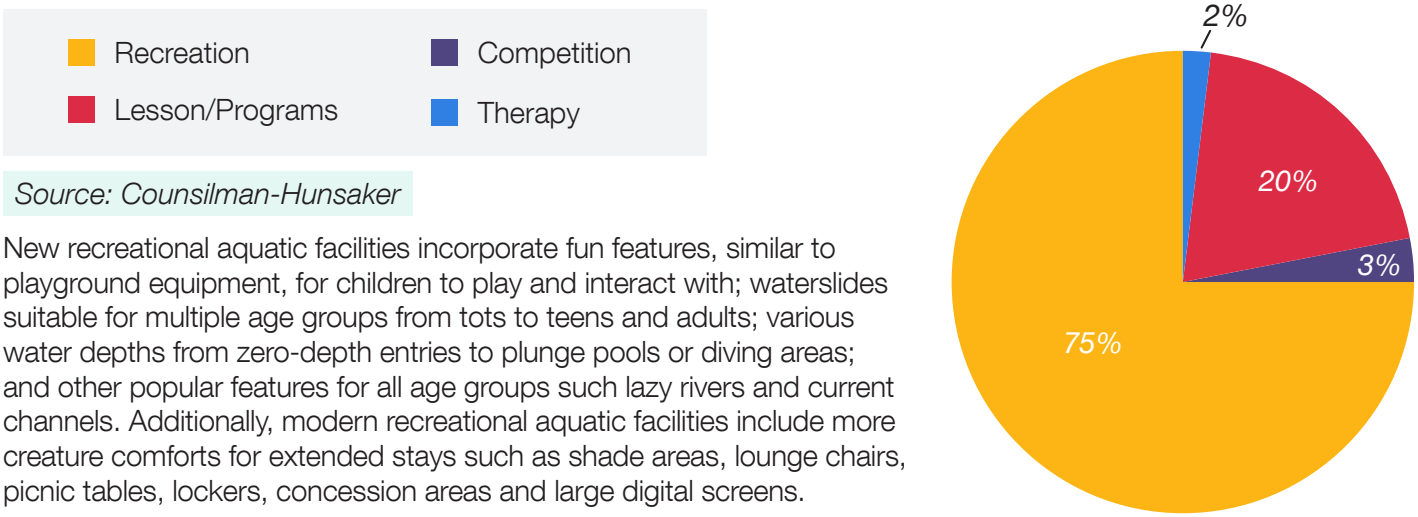
Competition (colder and deeper water with specific lengths and widths of lanes)

Therapy (very warm water with depths suitable for water aerobics)

A survey by the National Sporting Goods Association states that the recreational group makes up over 90% of all aquatic users and includes a variety of age groups from tots to seniors. Trends show that most recreational swimming happens during the summer months and, therefore, supports the need for outdoor aquatics. Even communities located in areas with cold winters and short summers still desire outdoor swimming facilities for summer use.

The recreational user group prefers to have shallower and warmer water to allow for extended stays and socialization. Research by Counsilman-Hunsaker also shows that recreation users provide 75% of the net revenue that can be generated from aquatics.

Typical Source of Net Revenue Streams by Aquatic User



Source: Counsilman-Hunsaker

New recreational aquatic facilities incorporate fun features, similar to playground equipment, for children to play and interact with; waterslides suitable for multiple age groups from tots to teens and adults; various water depths from zero-depth entries to plunge pools or diving areas; and other popular features for all age groups such lazy rivers and current channels. Additionally, modern recreational aquatic facilities include more creature comforts for extended stays such as shade areas, lounge chairs, picnic tables, lockers, concession areas and large digital screens.

Lessons/programming aquatic facilities can include areas for instruction for swim lessons, lifeguard training, water safety, scuba diving, etc. Each of these groups needs appropriate pool, deck and/or classroom spaces for teaching and training. These spaces are often incorporated into competitive and recreational style pools. Swim lessons are typically the largest of the instructional groups and are considered a life-safety skill that children need to learn. Some school districts such as Lewisville, Rockwall, and Garland have made learning to swim a key part of their elementary education program. New recreational style pools have increased children's desires to participate in swim lessons to be allowed to play and interact with their peers. Lesson/programming users typically provide 20% of the revenue from aquatic facilities.

The competition user group requires a pool that meets the dimensions of the regulating agency, including the NFSHS (High School Standards), NCAA (Collegiate Standards), USA Swimming (Club Team Standards), and FINA (International Standards). They also prefer deeper and colder water to increase the competitive abilities of the pool. The primary distance for competitive swimming in the United States is 25 yards. Only FINA and USA Swimming's summer program requires a 50-meter dimension. Competition groups are a small but dedicated group of users who have demonstrated that they will drive long distances for practicing and competitive meets. One metric often seen in planning for competition pools for high school swim teams is to provide one competition pool per public high school. While it is true that a year-round indoor competition pool facility can generate year-round revenue and user fees, the cost of operating such a facility greatly reduces the net income generated. Counsilman-Hunsaker has found that competition users typically generate about 3% of the net revenue from aquatic facilities.

Aquatic fitness also remains one of the most popular forms of exercise among senior adults. According to the 2020 Sports and Fitness Industry Association Annual report, the average annual growth of aquatic exercise has increased 4.3%. The properties of water allow seniors to have an increased range of motion and strengthen muscles without equipment (Neff, 2019). Data taken from the National Center for Health Statistics shows lifetime expectancy is up 30 years since 1900.4 The older adult market spans four generations from the Progressive Era 1900-1928, Depression Era 1929-1939, WWII Era 1940-1945, and Baby Boomers 1946-1964. The older adult market can be a large, affluent market willing to participate in water fitness, wellness programming, and other recreation opportunities. This diverse age group from 55 to 90+ includes sub-groups of which some are still working, some have children in college, and some are focusing on retirement, grandkids, and wellness. Consequently, seniors can be willing, enthusiastic participants if certain requirements are met. They typically feel uncomfortable in an environment with teens and generally respond better to strictly defined programming of well-structured activities such as water aerobics, arthritis water exercise, water walking, physical therapy, adult swim lessons, 'Save a Life' workshops, lap swimming, and Masters swimming.

National Trends in Aquatics

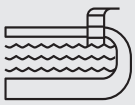
Until the 1950s and 60s many neighborhood public pools were filled daily with potable water and drained. Concerns over infectious disease outbreaks resulted in more stringent sanitation codes. Additionally, as the codes became more stringent and liability concerns increased – many public pools began to lose features such as diving boards and small water slides due to increased depth and clearance requirements. Shallow wading pools became suspect, and increased operating costs and ever-increasing competition for recreation time led to decreased pool attendance and the closure of many pools throughout the United States.

Beginning in the late 1970s and early 1980s, the "waterpark" concept was developed with more exciting water features such as wave pools, a variety of waterslides, and lazy rivers. Innovative public operators began to incorporate some of these features into their municipal aquatic facilities or they built municipal waterparks to re-attract aquatic recreation users and to increase revenue with higher admissions to offset the cost of operations.

The family aquatic center can be characterized as a hybrid of an old-fashioned pool, combined with waterpark elements such as waterslides, water play structures, lazy rivers, current channels, etc. During the past 25-30 years numerous municipalities have proven that by incorporating fun recreational water features into their facilities they were able to:

a. Meet the current trends and needs of the recreational aquatic users, thus increasing attendance.
b. Encourage and increase participation in learn-to-swim programs. Children want to learn to swim so they can have fun at their waterpark or family aquatic center.
c. Elevate pricing and generate revenue to sustain the operations expenses of providing facilities and programs for aquatic therapy and fitness users as well as swim teams.

Current successful trends in aquatic design for municipalities are as follows:



Larger and fewer facilities

Family aquatic facilities

(Multiple bodies of water)

- Competition
- Recreation (slides, lazy rivers, water play structures, etc.)
- All age groups

Spraygrounds or splash pads

Indoor / outdoor mega aquatic facilities

(Coupled with recreation centers)

Pay for play

(Public users are willing to pay for higher quality and more diverse/unique aquatic recreation experiences)

When developing tomorrow's vision for aquatic programming, it is important to understand traditional uses and trends in aquatic programs. Trends evolve in the aquatic industry as swimming expectations evolve. While national surveys continually rank swimming as a favorite recreational sport, today's aquatic centers incorporate recreation swimming and wellness pools to augment revenue of competitive swimming, thereby creating multi-generational facilities through shared expenses.

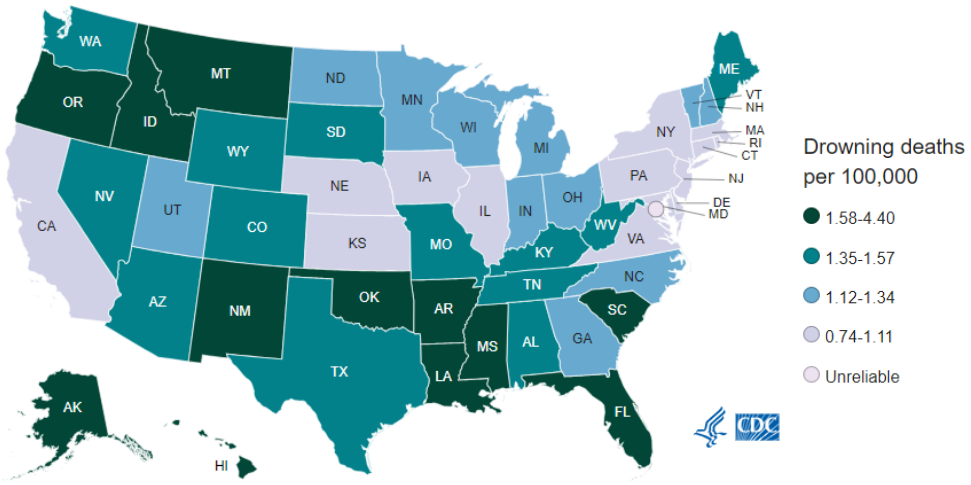
The following describes national trends for four aquatic user groups: lessons and fitness, water wellness, recreation, and competitive swimmers. The descriptions make evident the very different requirements for each of these aquatic user groups when planning and designing an aquatic facility.

Lessons and Fitness Participants

Swim Lessons

For every child who dies from drowning, another four receive emergency care for nonfatal submersion injuries, which can cause brain damage that may result in long-term disabilities, including memory problems, learning disabilities, and permanent loss of basic functioning.1

According to the Centers for Disease Control, more than one in five people who die from drowning are children aged 14 and younger.



Drowning Prevention is essential for children and adults, whether living in areas with natural bodies of water or simply being invited to pool parties. With more than one available pool in an aquatic center, lessons can be maximized so that a large number of residents can be taught to swim. Ideally, water depth for instruction should accommodate young participants to stand comfortably in the water. Recreation pools easily provide this preference. Deeper competition pools offer movable floors or other means of altering water depth for instructional purposes.

Well-run swim and safety lesson programs are essential in introducing young swimmers to safe aquatic skills that can be used throughout their lives. By offering the community a comfortable, controlled aquatic environment, swimming and diving lessons can become an enjoyable learning experience. There are many different types of water safety lessons that can teach children not only how to swim and dive but how to survive in adverse water conditions. From small watercraft instruction to learn to swim, water safety is an integral part of any community. Many will go on to formal competitive aquatic programs in school or age-group swimming programs. Some will excel to become state champions. Benefits such as scholarship offers may occur when a swimmer or diver selects a college, which could lead to national-level competition.

When teaching outside standard lesson, some classes mimic the natural environment through instructor creativity (i.e., creating wave action with hands and arms to mimic river tides), while others simply require small children to memorize what they would do in a situation where drowning is likely, and then enact memorized skills with an instructor present.

Lifeguarding and CPR

Water rescue skills and CPR are typically taught to all lifeguards. However, water rescue and CPR skill education is integral to the community because families are the true lifeguards of one another whether at the beach or a backyard pool. Often, such courses are sponsored by the Red Cross, Ellis and Associates, and other providers of safety training. A depth of 7' or greater is required for full certifications used by the City of Denton. Classes are typically offered December-January, requiring indoor training. Lifeguard classes also require access to classroom space, A/V equipment for mandatory training videos and training supplies/storage.

Access to both wet and dry ares in a similar location can expedite transition time which can cut down the overall time it takes to offer certification courses. Classroom spaces that open onto pool deck or training area are ideal for these courses. Consideration should be given to participant's needs for classes including storage systems for equipment, personal belongings, and appropriate classroom technology necessary for course delivery.

Lifeguard training provides many benefits to the individual as well as to the community. Lifeguards in Texas are required to participate in regular in-service programs to hone skills, keep current and practice components specific to their agency. Many lifeguards participate in regional or state competitions with access to scholarship opportunities. With a background in emergency management, common career progressions include profession as first responders, educators, and leaders in the respective industries.

School District Lesson Users

Other areas school districts benefit from aquatic facilities include programs for students with special considerations, or athletic programs such as Track and Field, who can utilities deep water for low-impact training. STEM programs are known to utilize pools for projects like underwater submersibles.

School districts are often valuable contributors to help efficiently program aquatic facilities. Potential programming might embrace swim lessons for elementary students, lifeguarding classes, physical education classes, therapy for high school athletes, and other joint partnership agreements to aid in directing area children to learn to swim. Aquatic sports (diving, water polo, synchronized swimming, underwater hockey, etc.) can contribute to the overall use of the facility as well as fitness use by faculty, special education therapy, and recreation. In addition, an aquatic facility may provide aquatic opportunities to pre-school children cared for by private daycare providers.

Aquatic Fitness

The more often the pool can be utilized for group activities for participants and spectators, the more likely the aquatic facility will be "alive" day in and day out. The types of activities that tend to draw a crowd are participatory, measurable, exciting, and often challenging – but not always so challenging that only the elite can participate. Activities can be tailored to different ages, sizes, and/or skill levels.

The industry has responded to the continued popularity of aquatic fitness by creating a wide range of activities with related devices and equipment for a greater diversity of water-based aqua exercise options. Aerobic dancing, walking, and running in shallow and deep-water environments, including current channels for walking against the current, are just a few of the choices available to people wishing to add less stressful elements of a cross-training regimen or even to use aqua aerobics for their entire fitness program. Additionally, businesses might sponsor or subsidize aquatic fitness as part of their employee wellness training discipline.

Aquatic fitness remains one of the most popular forms of exercise among senior adults.

Data taken from the National Center for Health Statistics shows lifetime expectancy is up 30 years since 1900.4 The older adult market spans four generations from the Progressive Era 1900-1928, Depression Era 1929-1939, WWII Era 1940-1945, and Baby Boomers 1946-1964. The older adult market can be a large, affluent market willing to participate in water fitness, wellness programming, and other recreation opportunities. This diverse age group from 55 to 90+ includes sub-groups of which some are still working, some have children in college, and some are focusing on retirement, grandkids, and wellness. Consequently, seniors can be willing, enthusiastic participants if certain requirements are met. They typically feel uncomfortable in an environment with teens and generally respond better to strictly defined programming of well-structured activities such as water aerobics, arthritis water exercise, water walking, physical therapy, adult swim lessons, 'Save a Life' workshops, lap swimming, and Masters swimming.

Competitive User Groups

A competition pool must be 25-yards or 25-meters for short-course events and 50-meters for long-course events. USA Swimming and FINA sanction short-course 25-meter as well as long-course 50-meter competitions. Depending on the level of competition, a minimum of six lanes is required, but eight lanes are expected to better allow for larger heats. While almost all 50-meter pools have ten lanes, 1 and 10 serve as buffer lanes.

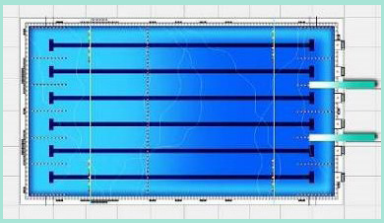
National caliber water polo matches take place in 30-meter fields of play minimum with at least a 2-meter zone behind each goal line. High schools, USA Swimming, the YMCA, and NCAA conduct short-course 25-yard competitions. For high school and NCAA events, a pool must have a minimum of six lanes, each at least seven feet wide. Several current standards require six feet or more of water depth beneath starting blocks. While some shallow water is acceptable, water depths of two meters or more "is required" as per applicable rules.

High school and college water polo often use 25-yard and 25-meter pools, but all high-level meets for USA Water Polo and international events are held in 50-meter pools. Water depth of two meters or more "is required" as per applicable rules. Synchronized swimming requires a deep, 12-by-25-meter pool area. A minimum water depth of 2.5 meters "is required" as per applicable rules. National and international events are generally conducted in 50-meter pools.

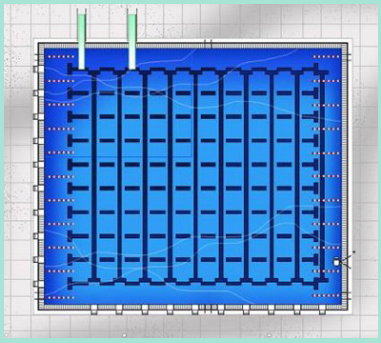
Another key component of swimming is its inclusiveness for all people as it's not a gender-specific sport and allows both males and females to compete. As seen in the recent International Swimming League meets, it also provides opportunities for coed relays.

Today, nine governing bodies sanction meets and matches in their respective sports, including:

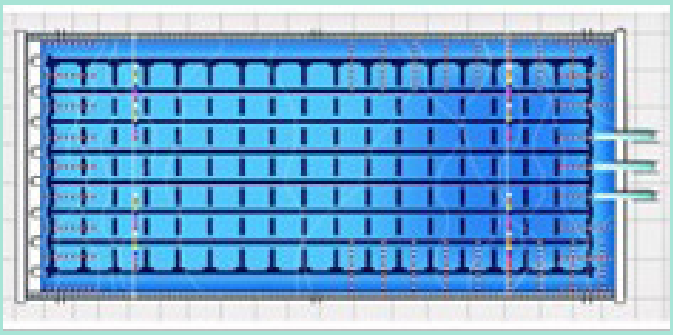
- USA Swimming
- National Federation of State High School Associations (NFSHSA)
- National Collegiate Athletic Association (NCAA)
- World Aquatics
- USA Water Polo
- USA Diving
- USA Artistic Swimming
- USA Masters Swimming
- YMCA



25YD Pool



25YDx25M Pool



50M Pool

Diving

Many pool operators have decided to remove diving boards for fear of injury to patrons. However, with proper water depth and supervision, springboard diving is one of the safest sports in existence. No catastrophic diving injuries, recreational or competitive, have occurred in pools sanctioned by any of the main governing bodies in competitive diving. Diving is an integral aspect of many aquatics' programs, being found in swimming lessons, recreational swimming, competitive swimming, and of course, competitive diving. Diving is a very important skill to learn as a headfirst entry into water always poses a safety risk, especially into shallow water. However, racing starts, and recreational diving can be safely performed, provided that basic precautions are taken.

High School Users

High school varsity swimming is typically well supported in most communities across the U.S.; however, many schools lack the ideal facility for training and competition. Because quality pool time is usually scarce in most areas, renting pool time from other area facilities can be daunting due to various needs and agendas, thus pool availability can diminish as facilities experience capacity. High Schools also do not typically have a cap on team size which makes swimming much more inclusive than other sports.

High school competitive swimming requirements include:

- Course length of 25 yards with a minimum width of 45 feet for six 7-foot-wide lanes or 60 feet for eight 7-foot-wide lanes
- 125 spectator seats
- Pace clocks, stretch cords, mats (for sit-ups, etc.), free weights, medicine balls, weight training equipment, kickboards, fins, paddles, pull buoys, and goggles

High school swimming offers many new perspectives and support systems through new teammates and coaches. High school swimming tends to be more team-oriented, while club swimming is more focused on the individual's goals. Club focuses heavily on individual performance, whereas high school teams aim to beat the other teams in dual meets and throughout the season. It's about bringing everyone together, expecting everyone to put in their best effort and see the team's end result. Many high school and college teams set specific individual and team goals that are centered on bettering the team as a whole and contributing towards reaching that team goal.

Competition season does not last the entire school year, so many programs transition their swim teams to water polo mid-year (see page 33 for additional information).

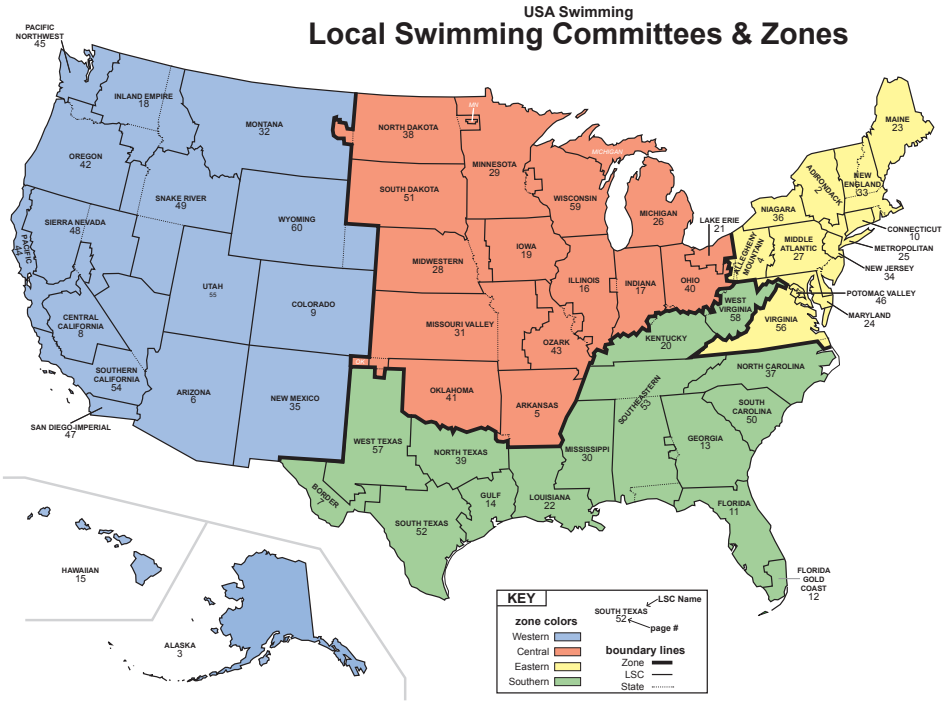
USA Swimming

USA Swimming formulates rules, implements policies and procedures, sanctions national championships, disseminates safety and sports medicine information, and selects athletes to represent the United States in international competitions. USA Swimming has over 300,000 year-round members nationwide and sanctions more than 7,000 events each year. USA Swimming has organized regional and national competitions for age group competitive swimming in the United States.

Zones

USA Swimming has four zones subdivided into fourteen regions. The four zones are Eastern, Southern, Central, and Western.

There shall be at least two (2) Spring and one (1) Summer Sectional meets in each Zone.



A. Summer Sectional

- The Summer Sectional shall be a Long Course meet.
- The Summer Sectional meet shall be no more than four (4) days long and shall conclude between eight (8) and twenty-two (22) days prior to the U.S. Open or Junior Nationals, whichever comes first.
- The Summer Sectional meet shall have at least one 18-and-under final heat per individual event.

B. Spring Sectional

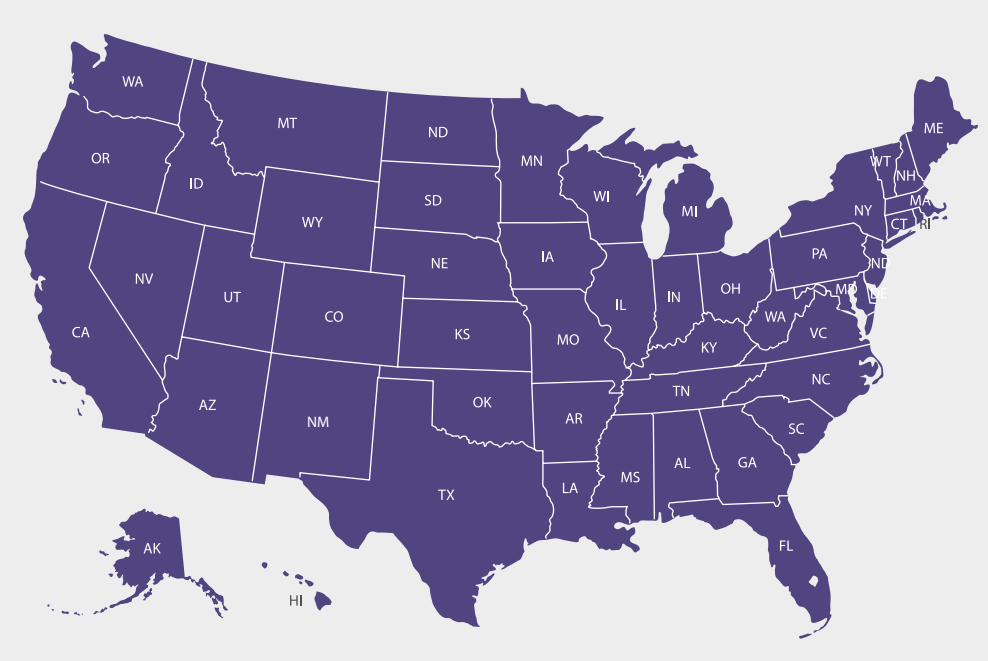
- The Spring Sectional meet should be no more than 3 ½ days long. The dates may vary according to the needs of each Zone.
- The Spring Sectional meet shall have at least one 18-and-under final heat per individual event.
- Competitive Events Overview

USA Swimming Competitive Events / Requirements

The following chart details the types of competitive swimming events with an approximate number of swimmers, pool requirements for competition and warm-up space, as well as the spectator seating requirements.

Event Title	Number of Swimmers	Pool Requirement	Warm-up Pool Requirement	Spectator Requirements	Number of Days	Time of Year
US Olympic Trials	1,200	One eight-lane, 50-meter pool; minimum depth of two meters and 9-ft wide lanes	Eight-lane, 50-meter pool, minimum depth of two meters and 9-ft wide lanes	14,000	8 days	Held in Olympic years
US Open	1,000	Two eight-lane, 25-yard competition pools; minimum depth of two meters and 9-foot wide lanes	Eight-lane, 25-yard pool	1,500	4 days	Begins the Wednesday after Thanksgiving
Speedo Winter Junior Championships (East/West)	1,000	Two eight-lane, 25-yard competition pools; minimum depth of two meters and 9-foot wide lanes	Eight-lane, 25-yard pool	1,500	Two separate four-day events	Begins second Wednesday after Thanksgiving
Phillips 66 National Championships	1,000	One eight-lane, 50-meter pool; minimum depth of two meters and 9-ft wide lanes	Eight-lane, 25-yard pool	1,500	5 days	Early August
Speedo Junior National Championships	1,000	One eight-lane, 50-meter pool; minimum depth of two meters and 9-ft wide lanes	Eight-lane, 25-yard pool	1,500	5 days	Early August
USA Swimming Futures Championships	1,000	One eight-lane, 50-meter pool; minimum depth of two meters and 9-ft wide lanes	Eight-lane, 25-yard pool	1,500	Four separate four-day events	Early August
Open Water National Championships	5K-100 to 150 10K-75 to 100	Open water area appropriate for the contested distance	None	None	3 days	Summer
TYR Pro Swim Series	700	One eight-lane, 50-meter pool; minimum depth of two meters and 9-ft wide lanes	Eight-lane, 25-yard pool	1,500	Series of 4-day events held throughout the country	
Speedo Sectionals	800	One eight-lane competition pool; 25-yards, 25-meters or 50-meters acceptable	Required	1,000	Series of 3 or 4 day events held throughout country	
USA Swimming Zone Championships	800	One eight-lane competition pool; 25-yards, 25-meters or 50-meters acceptable	Required	1,000	Series of 3 or 4 day events held in each of 4 zones in the country	
TAAF Regional Competition	1,800	One eight-lane competition pool; 25-yards, 25-meters or 50-meters acceptable	Required	500+	2 Days	Summer
TAAF State Games of Texas	2,000	One eight-lane 25 yard competition pool	None	500+	4 Days	Summer

United States Masters Swimming



The USMS has 450 clubs throughout the US.

United States Masters Swimming (USMS) programs are open to all adult swimmers (fitness, triathlete, competitive, non-competitive) dedicated to improving their fitness through swimming. Founded in 1970, the non-profit corporation is organized with 450 clubs throughout the United States. Membership consists of almost 65,000 swimmers ranging in age from 18 to over 100. Within the clubs, structured workouts offer training assistance for specific goals for a healthy lifestyle through camaraderie. Pool and open water races provide opportunities to compete and measure individual progress at the local, state, national, and international levels. USMS programs also offer stroke and technique clinics, workshops, instruction, and social functions. Competitions are organized by age groups of five-year increments (18-24, 25-29, 30-34, 35-39, etc. to 95 and over). Events include 50, 100, 200, 500, 1000 and 1650 freestyle (400, 800 and 1500 in meters); 50, 100 and 200 backstroke, breaststroke and butterfly; and 100, 200, and 400 individual medleys. There are also freestyle and medley relays for men, women, and/or mixed teams. Open water swims are held in most locales during the summer and can range in distance from one to ten miles. Special events such as seeing how far you can swim in one hour are contested through the mail. USMS hosts two national championship meets a year. A short course (25-yard pool) championship is held in May and a long course (50-meter pool) championship is held in August. These four-day events rotate to different locations around the country. International championships are conducted periodically by Masters Swim organizations in countries throughout the world.[7]

Community Swim and Dive Teams

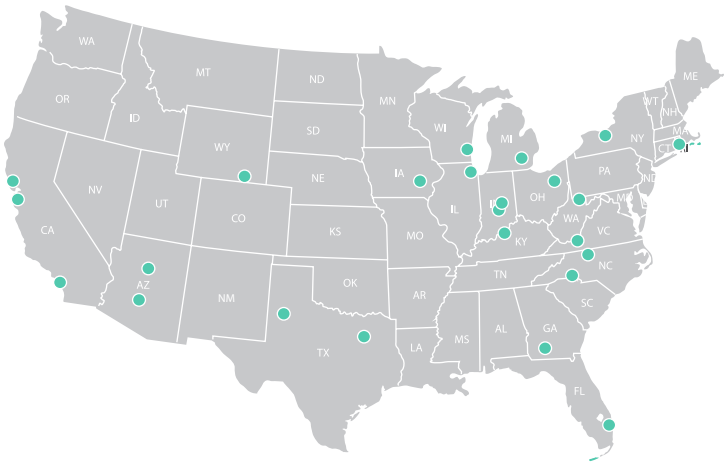
Numerous communities sponsor competitive swimming and diving teams for children and teens. The purpose is to offer opportunity to enjoy the healthy fun of swimming; to support individual achievement of personal bests; and to promote goal setting, life skills, and sportsmanship. Teams typically adhere to recognized swimming rules and swim the standard strokes of swim meets but in shorter lengths. Swimmers with limited or no competitive experience are provided stroke conditioning clinics as a recommended alternative. Teams are usually more active in the warmer months, and not directly associated with a national swim organization. Many swimmers who begin their competitive swimming experience on a local swim team proceed to join nationally governed teams.

Pool Rental

Competitive swimmers, particularly members of independent swimming associations, are accustomed to renting lane space for training as well as leasing entire facilities, either for long-term use or on a one- to three-day basis for special events and competitions. Although there is more than one accepted way to receive fees from swim teams, pool lane rental is usually based on cost per lane/per hour. Entire facilities leased on a per-day basis generally have a fixed schedule of costs for such use. Long-term facility leases are generally the product of negotiation and, accordingly, are too varied and specialized for consideration in the context of this study.

Another key pool rental use is for local, regional or statewide swim meets. Meets can be hosted by other a variety of swim groups, which includes High Schools, College Clubs, and other area swim clubs.

USA Diving Overview



USA Diving has 5,809 members nationwide across 199 diving clubs. Most divers have dual membership with AAU and USA Diving. Diving competitions are held at aquatic centers across the country and are divided into different types, similar to competitive swimming. Regional dive meets do not require platform diving (5M, 7.5M, 10M) while Junior Nationals, Zones and national events require platform diving.

When reviewing the need for platform diving, a closer look at the number of platform divers is necessary. Platform statistics show that depending on the type of dive competition, approximately 25% to 50% of divers at a Zones, Invitational and Region meet will compete on platforms. While competitive diving events typically only have around 200 divers, the percentage of out-of-market competitors is extremely high, sometimes exceeding 90%. This maximizes the economic impact generated by diving events.

USA Water Polo

USA Water Polo is the governing body for competitive water polo in the U.S. Currently, USA Water Polo has over 42,000 active members spread across 588 clubs and 11 zones. They divide members by age and area of the country and host numerous regional and national events per year. 50% of USA Water Polo members are located in California.

Junior Olympics is the biggest event for USA Water Polo each year, typically held at multiple facilities across a metropolitan area. It was held in Dallas, Texas in 2022. In addition to Junior Olympics, there are 10 national events per year and another 10 to 15 regional events. 20% of events are considered masters events for ages 18 and over. With an average team size of 10 to 14 athletes, upwards of 850 to 1,000 athletes compete in USA Water Polo's national events.

Aquatic User Groups

When comparing pools to other pools across the country, it is important to look at aquatic users. Today, most communities build multigenerational facilities to accommodate lifecycle programming for tots learning to swim, swim teams, adults seeking low-impact water exercise, seniors and injured athletes looking for water therapy, and families just wanting to have fun. A more detailed description of each user group follows.

Lessons

A well-run swim lesson program trains children in safe swimming techniques. A public health policy typically stresses strategies that educate the public about hazards of open bodies of water. They promote swimming and water safety classes, and encourage CPR training for children and teenagers. Swim lessons are vital to the health and safety of the community.

Competitive

Competitive athletes (USA Swimming, USA Diving, US Masters, summer swim and dive teams, high school swim and dive teams, water polo teams, etc.) are very loyal and appreciative groups, and, if their needs are met, can be counted upon to provide a portion of the operating income.

Fitness

Water aerobics offer benefits for adults seeking a low or no-impact form of exercise. Classes include water pump workouts with foam water weights or water-proof plastic weights, water walking, aqua aerobics, and various aquatic exercises.

Wellness

Aquatic therapy requires a very controlled environment. In order to maximize revenue potential and health benefits to the community, programming needs to concentrate on therapy associated with a medical provider. This approach is a separate business and is not commonly incorporated with a community aquatics program.

Recreation

Recreation swimmers have evolved most over the years, providing necessary repeat visits to help pay operating costs. They are willing to pay more per visit if their expectations are met. The ultimate test of design is the choreography of people, their perception of the facility, and repeat visits.

Age Group	Recreational Aquatic Age-Group National Trends
Age 0-3	Tot Pool, Tot Slides, Gentle Spray Features, water tables , places for parents near features with shade
Age 4-7	Water Sprayground, Zero-Depth Pool, Participatory Play Features, Sand Play
Age 8-11	Water Walks, Large Play Structures, Full-Size Waterslides, Open Water, skill-based attractions
Age 12-16	Water Walks, Large Waterslides, Open Water, Lazy River, Gathering Places, Sand Volleyball, Mat Racer, Diving Boards
Age 17-22	Action Island, Intense Waterslides, Flow Rider, Mat Racer, Climbing Wall, Open Water, Sand Volleyball, Drop Slides, Diving Boards, skill-based attractions
Age 23-45	Zero-Depth Pool (to be w/children), Open Water, Spa, Sun Deck, Lap Lanes, Lazy River, Waterslides, Diving Boards
Age 46+	Spa, Sun Deck, Lap Lanes, Lazy River, Family-Friendly Waterslides

Recreational Amenities

To serve the user groups, the following amenities are typically considered:

Leisure Pool

The 0-to-4-foot depth of leisure pools provides adults and children aquatic interaction, entertainment, relaxation, and fun. With opportunity for many different sizes and designs, the leisure pool is a desirable attraction for all age and skill levels. Many different amenities can be incorporated for added amusement

Zero-Depth Entry

Zero-depth entry simulates an ocean beach as the pool bottom slopes gradually toward the deeper water. Instead of jumping or climbing into the pool, patrons simply walk in as they would at a beach.

Lap Lanes

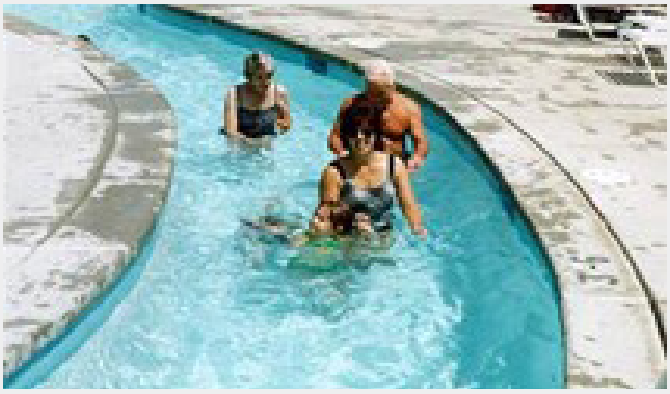
It is essential to note that fitness lap swimming and water walking are important to many adults and seniors. Opportunities for limited practice and training exist in a two, three, or four lane 25-yard lap pool adjacent to a leisure pool. Additionally, programming can be incorporated for lessons and group activities.

Waterslides

Waterslides provide excellent recreation value and come in many shapes and sizes. The teen market is drawn to speed slides and drop slides. Experiences can range from family-friendly to surprisingly intense. Raft/Tube slides can offer co-rider experiences that body flume slides do not provide.

Play Features

Interactive play features bring recreational value to aquatic facilities. Children can slide down just-their-size waterslides, scamper through spraying water, climb across bridges, and scurry over and under tunnels. Valves, chains, and ropes can be manipulated and transformed by the imagination. As children interact with these features, they control where and when the water sprays will occur.



Current Channel

A current channel is part of the leisure pool, usually 6-8 feet wide with water traveling at approximately three miles per hour. The current channel can provide an ideal floating adventure with a tranquil ride on a relaxing journey going with the flow, or it can be used for walking against the current as a non-programmed or programmed exercise. This amenity provides a refreshing way for all ages to leisurely enjoy the water.

Shade Features

Shade can come in many different forms (umbrellas, pavilions, cantilever, cabanas) and can provide a festive atmosphere. They cover, connect, and join areas while providing relief from the sun. The are also a highly requested amenity and can be a potential source of revenue.

Aquatic Facility Options

When developing a new aquatic system, all user groups and types of aquatic facilities should be considered. A mix of indoor and outdoor as well as competitive and recreational will complement each other and provide for better aquatic services. Locations of these facilities are also important. Use of aquatic facilities is based on users willingness to travel. Typically, people are more willing to drive to larger indoor facilities, while outdoor facilities need to be more evenly distributed to create shorter drive times. Special use facilities (competition venues, waterparks, therapeutic pools) are not as greatly impacted by travel times due to their uniqueness.

Splash Pads

Water spray features enhance the recreation value of a park or aquatic facility by featuring splash pads located on a concrete splash pad, either with or without standing water. Because of minimal water depth, splash pads can, in most jurisdictions, be operated without certified lifeguards, making them a cost-effective addition for all types of parks, recreation areas, and aquatic centers.

Community Family Aquatic Center

Community family aquatic centers offer family amenities in a cozy atmosphere, thus delivering a friendly customer experience in a local community. They typically include a leisure pool, lap lanes, tot pool, play feature, and shade areas.

Regional Family Aquatic Center

Regional family aquatic centers offer a larger scale of cutting-edge amenities, deliver a unique customer experience, and draw from a larger regional radius. They typically include a leisure pool, competitive pool, tot pool, play features, and shade areas.

Destination Facility

Creating WOW aquatic environments entices the senses and differentiates an ordinary experience into a memorable one. Vacationers and residents are lured by a valued product that offers a combination of tranquil and exhilarating swimming pools and amenities. Destination aquatic centers typically include leisure and tot pools, waterslides, play features, lazy rivers, and shaded areas.

Approaches to Aquatic Planning

There are three primary approaches to providing for the aquatic programming needs for municipalities: Neighborhood Approach, Community Approach, and Central Approach.

Neighborhood Approach

Offer numerous smaller facilities with one body of water for each neighborhood.

PROS

- Closer proximity to residents.
- Lower capital costs for each facility (phasing).

CONS

- Greater operating costs due to multiple aquatic centers.
- Keeping multiple aquatic centers sustainable with the economy.

Community Approach

Offer multiple medium-sized facilities each with multiple bodies of water located throughout the community.

PROS

- Greater experience for residents.
- Net operations would be reduced compared to Neighborhood Approach.

CONS

- Higher capital cost for each facility compared to Neighborhood Approach.
- Nonresident users may over crowd the facility.

Central Approach

Offer one centralized facility with several bodies of water to serve the entire community.

PROS

- Aquatic Master Plan would be realized sooner.
- Community hub profile.

CONS

- Longer drive time for most residents.
- Higher admission fees over what residents might expect to pay.

Why Not Build All Pools Indoor?

1

Most aquatic users are recreational users who swim seasonally in the summer and prefer to swim outside in warmer water with a variety of water recreation features (slides, channels, water play structures, etc.)

2

Indoor pools have two to three times the initial capital cost and annual operating expenses per square foot than outdoor seasonal pools.

3

A well-designed outdoor family aquatic center will generate more revenue in 90-100 days than an indoor pool programmed for year-round use.

4

Competition or lap pools are not the most conducive to lesson programming for learn to swim (water too cold and too deep), for recreation swimming (water too cold and too deep and no fun features), and for water aerobics (water too cold and too deep.)

Nationwide Recreational Aquatic Trends

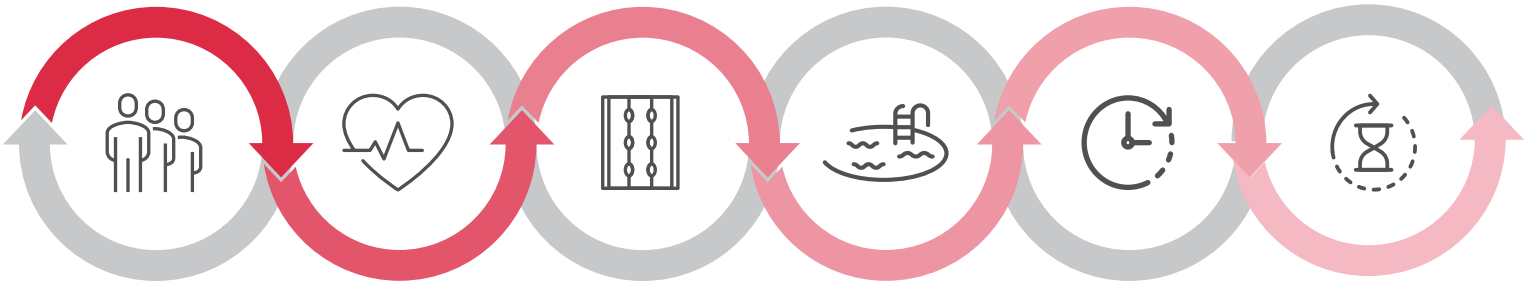
Use of splash pads to replace smaller neighborhood pools - Costs $500K to $1.5M

Replacement of old-style recreation pools with bigger and more multi-generational family aquatic centers - Costs $8M to $18M

4

Section 4:
Existing Aquatic Features

Key Market Factors



1. Water Works Park serves 80,000+ people per summer
2. Natatorium provides aquatic fitness and instruction programs for children and adults
3. Denton ISD's utilizes indoor lap pool for 26+ hours per week during peak hours
4. Majority of aquatic facility utilization for recreation, competition, instructional and wellness purposes
5. Limited availability at the NAT for community programming due to small program pool and Denton ISD aquatic sports
6. Civic Center Pool has aging infrastructure despite recent renovation

The City of Denton offers a large outdoor recreational facility at Denton Water Works Park, a smaller neighborhood facility at Civic Center Pool and an indoor Natatorium that is shared use between the City and Denton ISD.

Denton Natatorium (Indoor Aquatics)

- Opened in 2003
- 10-Lane 25 YD Lap Pool
- Smaller recreational/ therapy pool
- Small body flume slide
- Administration offices
- Spectator seating
- Attendance: +/- 71,000

Observations

- Space is limited for multiple users (Denton ISD Athletics, citizen programming, etc)
- More lane capacity is needed for DISD with the addition of high schools since the Natatorium was originally built and the addition and growth of water polo as a sanctioned UIL sport.
- Needs better accessibility
- The shallow water program and recreation pool is too small for both purposes.
- The Natatorium does not have on-site dryland training room for its athletes.
- The existing lifeguard office is not large enough to support full staff during summer when both the Natatorium and Water Works are operating.
- Locker room space is not adequate for both DISD and public

- The dehumidification system does not operate as expected to ensure comfortable temperatures for both swimmers and spectators, and to help bring fresh air in to the natatorium and remove chloramines. Because of this there is noticeable corrosion on various pool components.
- A renovation has not yet been performed on either of the indoor pool's mechanical systems. Counsilman-Hunsaker places the lifespan of a pool's mechanical system in the range of 15 to 25 years dependent on the type of equipment and preventative maintenance.

Summary & Recommendations

1. Plan for a renovation of the lap pool and program pool's mechanical system
2. Plan for enhanced maintenance of the existing dehumidification system
3. Continue to offer community aquatic programs such as water fitness classes, swimming lessons, lap swim, water walking and recreational swimming.

Water Works Park (Water Park)

- Opened in 2003
- Childrens Pool with Play Feature
- Lazy River
- Three Large Flume Slides
- Wave Pool (2017)
- One Speed Slide
- Sand Volleyball
- Otter Slide
- Attendance: +/- 80,000 per season
- Gift Shop
- Concessions added in 2018

Observations

- Slide Tower is reaching end of its lifespan
- Entry is not very attractive
- No programmable water area
- Concession area is adequate and can support more attendance
- Facility is large but has few areas for expansion without removing existing features.
- Outdated branding; lacks cohesive message

Summary & Recommendations

1. Water Works Park offers many amenities found in modern water parks. Continued investment in new amenities and replacement of aging amenities is important to maintain and even increase attendance in the future. Below is a list of recommended features that should be considered in the next 5-7 years.
2. Replace existing kids pool with programmable and multi-functional water.
3. Add a large multi-structure play unit that can be an attraction for more families
4. Evaluate slide structure and replace fiberglass
5. Add more rentable shade structures
6. Improve circulation and shade areas
7. Replace Tickets/Bathhouse with new building including new filtration room
8. Consider investing in an overhaul of Water Works Park branding to include: theming, updating logos, utilizing digital assets for marketing, update the dentonwaterworks.com web page, and promotion materials.
9. Updated camera system throughout park and parking lot to improve safety
    - Updated POS system to allow for efficient operations with concession, mobile ordering, inventory tracking, and user tracking
    - Digital screens for advertising located at party areas, inside cabanas, digital menus at Concessions, and at Admissions gate.
10. Update and replace sound systems at CCP, Nat and WWP for purposes of safety notifications, DISD swim meets as well as entertainment opportunities
11. Continued upgrades to pump house equipment that promote energy/utility/mechanical/chemical efficiencies
12. Install of landscape/irrigation equipment that will track usage/monitor/allow staff efficiencies (irrigation controllers, lighting features, etc)
    - Replace entrance signage for WWP/Nat with a larger digital marquee that aligns with the expansion of FM 428 on the Mobility Plan
    - Priorization and implementation of technological improvements
13. Absorb Skate Park property and build a maintenance office that could house large equipment, tools, furniture storage, and provide office space to Parks employees.
14. Phase in ammenity repairs/renovations and additions of new attractions to consistantly give the park updated incentive for visitation to WWP.

Civic Center Pool (Neighborhood Pool)

- Opened in 1965 (renovation performed in 2017)
- One Recreation Pool including 6 lap lanes
- Two Pool Sider Slides
- Vertical Spray Features
- One Open Flume Waterslide
- O'Neil Ford Historical site
- Crossing Activity
- Attendance: 350 to 400 average daily attendance
- Small concessions area

Observations

- Local neighborhood draw.
- Older facility that was remodeled into more functional and recreational water space.
- Park setting adds character.
- Little room for expansion with overall park plan.
- Approximately 50% use is from: Camps, rentals, programs, and events (2023)
- Adequate parking for usage.
- Depth Range 0'-6'-3".
- Both natural shade and shade structures.

Summary & Recommendations

Civic Center Pool is the oldest aquatic facility in Denton. It has been a staple in citizens learning to swim for more than half a century. Being next to City Hall, it is centralized within the City limits. However, it is not a well located facility for the higher density areas of Denton and falls short of pulling in users from farther than a 10-minute radius. A renovation of the swimming pool was performed in 2017 to incorporate modern aquatic features. Below is a list of recommendations for the facility:

1. Continue to operate facility "as-is" for the foreseeable future to accommodate swimming lessons, the Dolphins Summer Swim Team and open recreational swim for the City's summer camps and residents.
2. As the CCP continues to offer a seasonal swimming experience to the Denton community, its utilization should be closely monitored as new facilities are brought online and as the CCP continues to approach the end of its expected lifespan.
3. The City should keep the CCP operational for the foreseeable future, but limit the overall capital investment in the facility. The threshold for reinvestment dollars should be based on bid limits for repair services, the demand on personnel for repair and maintenance and amount of money allocated in the City's annual capital improvement budget.

Carl Gene Young Sr. Sprayground

- Opened in 2021
- Approximately 1,200 SF Sprayground
- One vertical spray feature
- Ground sprays
- Addition/Expansion in ‘23-’24
- Restroom facility
- Benches

Observations

- Local neighborhood draw.
- Minimal Shade.
- Park setting adds character.

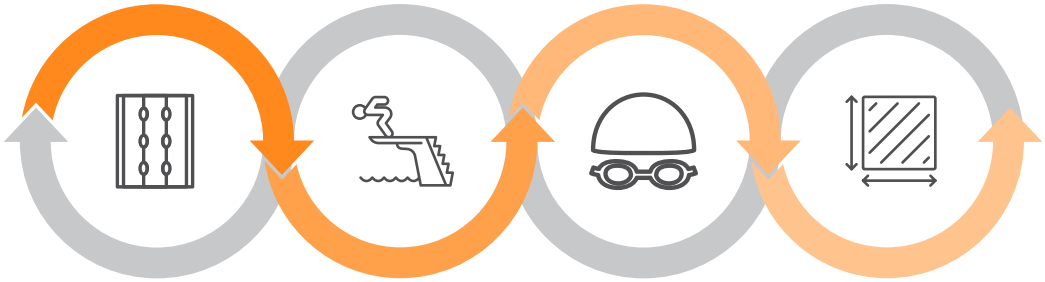
Summary & Recommendations

- An expansion to the sprayground is in the planning stages to increase the overall square footage and add capacity.
- Create a technology standard for all sprayground.
- Wifi for pump room/controller notification functions.
- Security systems to monitor activity of park and pump room.
- Automated features to enhance performance and guest experience.

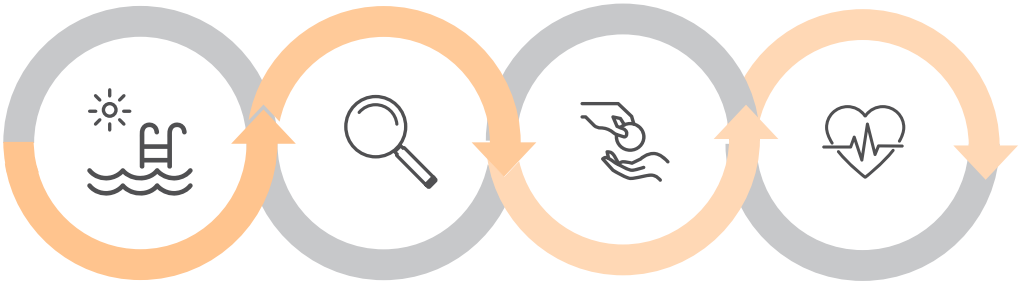
5

Section 5:
Final Plan | Site Programs

Aquatic Facility Planning



1. 50-meter pool addition to the NAT would provide necessary lane capacity for ISD and community fitness
2. With the growth of Denton ISD's aquatic sports (swimming, diving, water polo) increasing the number of lap lanes is a primary need
3. Additional options were explored to provide for needs of UNT Swim and Dive Team
4. Biggest need for Water Works Park is updated support spaces, larger children's area and additional open rec water, and multipurpose rooms



5. South Denton aquatics center needs indoor lap pool and program pool plus outdoor recreation
6. Indoor recreation area similar to Little Elm's Cove Waterpark was also explored
7. Capital investments range from $15M to $55M per project or phase (2022 Cost Estimates)
8. Incorporate aquatic features into a future active adult center

Denton Natatorium

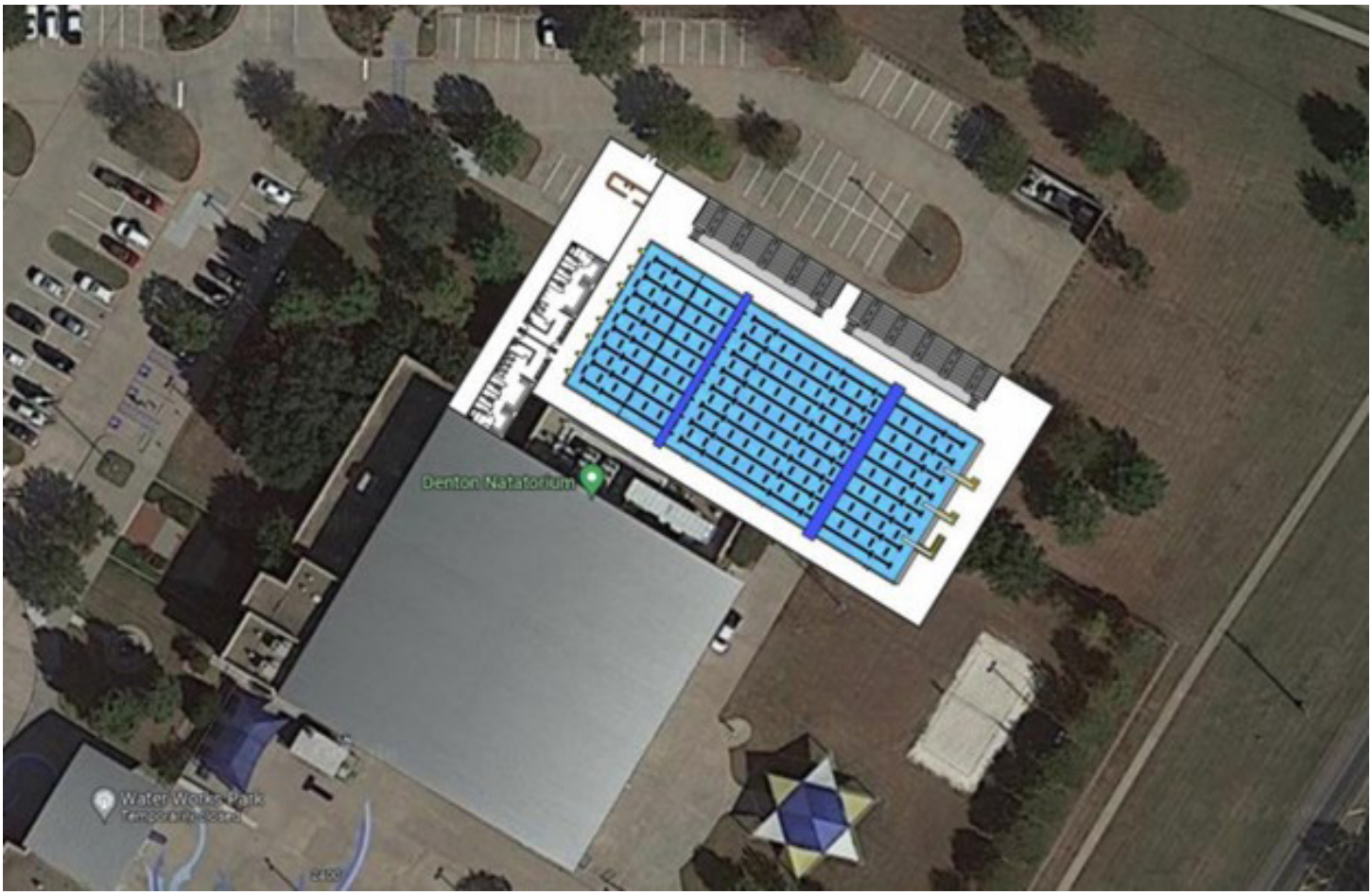
OPTION A

Since the Natatorium is at capacity for the purposes of Denton ISD Athletics and community aquatic programming, the addition of a 50-meter b 25-yard competition/lap pool would prove beneficial for the City and the School District. This entails the construction of a 35,000 square foot addition that includes the new natatorium with spectator seating, new locker rooms and a separate point of entry. An increase of 20 short-course lap lanes in the City allows the facility to better accommodate competitive aquatics sports for all four of the high schools and provide an enhanced venue for practice and competitions. It will also provide 8, 50-meter long course lanes which are currently not available in the City. This creates more space in the existing lap pool for community use which is not currently available from 7:00 a.m. to 9:00 a.m. and 3:00 p.m. to close. The increased number of lanes allows for the City to either start or partner with a USA Swimming Age Group Swim Team to serve as a tenant at the facility.

Capital Cost* (shown in 1/9/2023 dollars)

Construction Cost: $22.1M

Total Project Cost: $28.8M



Natatorium Addition Cost Estimate: OPTION A

CHART AQUATIC RESEARCH TOOL	OPINION OF PROJECT COST: 50-Meter Pool Addition to NAT		
Description	Unit	Amount	Opinion of Cost
Support Spaces		12,918	$4,847,514
Lobby	Sq. Ft.	800	
Front Desk	Sq. Ft.	200	
Coaches Office (2)	Sq. Ft.	300	
Multi-Purpose Rooms (2)	Sq. Ft.	1,600	
Offices (Lifeguard + Admin)	Sq. Ft.	400	
Meet Management Room	Sq. Ft.	400	
Locker Rooms	Sq. Ft.	2,800	
Dryland Training Space	Sq. Ft.	1,000	
Indoor Pool Mechanical Room	Sq. Ft.	1,864	
Building Mechanical / Electrical / Janitor	Sq. Ft.	600	
Water Works Party Rooms	Allowance	1	
Storage (Building / Pool)	Sq. Ft.	800	
Circulation and Walls (20%)	Sq. Ft.	2,153	
Indoor Aquatic Center		26,800	$16,516,250
Competition Pool	Sq. Ft.	13,050	
Bulkhead	Qty.	2	
1M Diving	Qty.	1	
3M Diving	Qty.	1	
Timing / Scoreboard / Sound System	Allowance	1	
Natatorium Enclosure (Traditional)	Sq. Ft.	22,000	
Spectator Seating (7 Sq.Ft. per person)	Sq. Ft.	4,800	
Unit		Sq. Ft.	Opinion of Cost
Total Building Construction Costs		**39,718**	**21,363,764**
Site Construction Costs (parking, landscaping, utilities, walks - assuming normal site conditions)			$595,775
Furniture, Fixtures, Equipment			$239,000
Subtotal			$22,198,539
Escalation Allowance (1 year)	5.0%		$1,109,927
Contingency (Design / Construction)	10.0%		$2,330,847
Design Fees, Surveys, Permitting	12.0%		$3,076,718
Opinion of Probable Cost			**$28,716,030**
Total Estimated Project Costs:			**$28,800,000**
Estimate Current as of:	**1/9/2023**		
Source: Counsilman-Hunsaker			

Platform Diving NAT Addition

OPTION B

As the aquatics master plan has progressed, the potential partnership discussions between the University of North Texas and City of Denton have continued. As an alternate to the 50-meter pool addition to the Natatorium, the possibility exists to add on a platform diving well instead to support UNT's competitive diving program. This will also allow added lane capacity for Denton ISD Aquatics and free up lane space in the existing lap pool for community programming. This would be 20,000 square foot addition to the Natatorium.

Capital Cost* (shown in 2023 dollars)

Construction Cost: $13.1M

Total Project Cost: $17M

Platform Dive Well Addition Cost Estimate: OPTION B

CHART	OPINION OF PROJECT COST: Platform Dive Well Addition to NAT			
Description		Unit	Amount	Opinion of Cost
Support Spaces			10,253	$3,978,963
Lobby		Sq. Ft.	800	
Front Desk		Sq. Ft.	200	
Coaches Office (2)		Sq. Ft.	300	
Multi-Purpose Rooms (2)		Sq. Ft.	1,600	
Offices (Lifeguard + Admin)		Sq. Ft.	400	
Meet Management Room		Sq. Ft.	400	
Locker Rooms		Sq. Ft.	2,800	
Indoor Pool Mechanical Room		Sq. Ft.	643	
Building Mechanical / Electrical / Janitor		Sq. Ft.	600	
Water Works Party Rooms		Allowance	1	
Storage (Building / Pool)		Sq. Ft.	800	
Circulation and Walls (20%)		Sq. Ft.	1,709	
Indoor Aquatic Center			11,400	$8,692,500
Competition Pool		Sq. Ft.	4,500	
Bulkhead		Qty.	2	
1M Diving		Qty.	1	
3M Diving		Qty.	1	
5M/7.5M/10M Platforms		Allowance	1	
Timing / Scoreboard / Sound System		Allowance	1	
Natatorium Enclosure (Traditional)		Sq. Ft.	9,000	
Spectator Seating (7 Sq.Ft. per person)		Sq. Ft.	2,400	
Unit			Sq. Ft.	Opinion of Cost
Total Building Construction Costs			**21,653**	**12,671,463**
Site Construction Costs (parking, landscaping, utilities, walks - assuming normal site conditions)				$324,789
Furniture, Fixtures, Equipment				$130,000
Subtotal				$13,126,252
Escalation Allowance (1 year)		5.0%		$656,313
Contingency (Design / Construction)		10.0%		$1,378,256
Design Fees, Surveys, Permitting		12.0%		$1,819,299
Opinion of Probable Cost				**$16,980,120**
Total Estimated Project Costs:				**$17,000,000**
Estimate Current as of:		**1/9/2023**		
Source: Counsilman-Hunsaker				

Platform Diving on 50M Addition

OPTION C

Another option in the partnership scenario is to include platform diving on the deep end of the 50-meter pool. This would slightly increase the total size of the addition and increase the capital cost by $3.1M, with minimal impact on the annual operating expenses.

Capital Cost* (shown in 2023 dollars)

Construction Cost: $24.4M

Total Project Cost: $31.7M

Platform Diving on 50M Addition Cost Estimate: OPTION C

CHART	OPINION OF PROJECT COST: 50-Meter Pool + Platforms Addition to NAT			
Description		Unit	Amount	Opinion of Cost
Support Spaces			12,558	$4,704,444
Lobby		Sq. Ft.	800	
Front Desk		Sq. Ft.	200	
Multi-Purpose Rooms (2)		Sq. Ft.	1,600	
Offices (Lifeguard + Admin)		Sq. Ft.	400	
Meet Management Room		Sq. Ft.	400	
Locker Rooms		Sq. Ft.	2,800	
Dryland Training Space		Sq. Ft.	1,000	
Indoor Pool Mechanical Room		Sq. Ft.	1,864	
Building Mechanical / Electrical / Janitor		Sq. Ft.	600	
Water Works Party Rooms		Allowance	1	
Storage (Building / Pool)		Sq. Ft.	800	
Circulation and Walls (20%)		Sq. Ft.	2,093	
Indoor Aquatic Center			28,800	$18,866,250
Competition Pool		Sq. Ft.	13,050	
Bulkhead		Qty.	2	
1M Diving		Qty.	1	
3M Diving		Qty.	1	
5M/7.5M/10M Platforms		Allowance	1	
Timing / Scoreboard / Sound System		Allowance	1	
Natatorium Enclosure (Traditional)		Sq. Ft.	24,000	
Spectator Seating (7 Sq.Ft. per person)		Sq. Ft.	4,800	
Unit			Sq. Ft.	Opinion of Cost
Total Building Construction Costs			**41,358**	**23,570,694**
Site Construction Costs (parking, landscaping, utilities, walks - assuming normal site conditions)				$620,375
Furniture, Fixtures, Equipment				$249,000
Subtotal				$24,440,069
Escalation Allowance (1 year)		5.0%		$1,222,003
Contingency (Design / Construction)		10.0%		$2,566,207
Design Fees, Surveys, Permitting		12.0%		$3,387,394
Opinion of Probable Cost				**$31,615,673**
Total Estimated Project Costs:				**$31,700,000**
Estimate Current as of:		**1/9/2023**		
Source: Counsilman-Hunsaker				

Water Works Park: PHASE 1

In the short-term (5-7 years) Water Works Park would benefit from the addition of a multi-use pool that could be used for learn-to-swim programming, lap swimming and recreational uses. This addition would create a new outdoor water experience and offer another area for shaded seating and lounging. Moving and increasing the size of the children's pool area would provide a more usable play structure for a wider age range of kids creating a larger geographic draw.

Water Works Park Upgrades/Expansion

- Large Children's Play Area, equivalent to an AquaPlay 1750.
- Shade/Pavilions
- Party Room Additions
- Office/Admin/Mechanical Room Additions
- Activity Pool

Capital Costs* (shown in 2023 dollars)

Construction Cost: $12.9M

Total Project Cost: $14.9M

Operational Costs* (shown in 2023 dollars)

Additional Expense Budget: $250,000

Revenue Projection: $286,000

Denton Water Works Park Remodel Cost Estimate: PHASE 1

Kimley»Horn

Denton Water Works Park Phase I Remodel

6/14/2023

Item	Unit	Quantity	Cost	Item Cost
General Conditions (+/- 6%)	LS	1	$650,000.00	$750,000.00
Demolition	LS	1	$200,000.00	$200,000.00
Tickets/Admin/Restroom/Filtration Building	SF	9,000	$375.00	$3,375,000.00
Party Room Addition Allowance	SF	1,500	$425.00	$637,500.00
Existing Pump Room Revitalization	SF	1,700	$425.00	$722,500.00
Leisure Pool	SF	4,900	$450.00	$2,205,000.00
Large Children's Play Structure Allowance	LS	1	$2,200,000.00	$2,200,000.00
20' Dia. Umbrella Shade Structures	EA	6	$8,500.00	$51,000.00
30' Group Pavilion Allowance	EA	2	$30,000.00	$60,000.00
Cantilever Shade Structures	EA	9	$15,000.00	$135,000.00
20'x30' Shade Structures	EA	3	$40,000.00	$120,000.00
5" Concrete Pool Deck Allowance	SF	75,000	$10.00	$750,000.00
8 ' HT. Vinyl Coated Chain Link Fence Allowance	LF	400	$80.00	$32,000.00
Grading, Site Preparation Allowance	LS	1	$200,000.00	$200,000.00
Onsite Utilities and Drainage Allowance	LS	1	$200,000.00	$200,000.00
Landscape and Irrigation Allowance	LS	1	$200,000.00	$200,000.00
FFE	LS	1	$250,000.00	$250,000.00
Contingency	LS	1	$200,000.00	$200,000.00
Sub Total Construction Costs				$12,288,000.00
CONSTRUCTION COSTS (SAY)				**$12,300,000.00**
10% Indirect Costs (Topo, Geo-tech, Engineering)				$1,230,000.00
Sub Total Project Costs w/ Indirect Expenses				$13,530,000.00
10% Inflation				$1,353,000.00
Sub Total Project Costs w/ Inflation				$14,883,000.00
TOTAL PROJECT COSTS w/ TWO YEARS INFLATION (SAY)				**$14,900,000.00**

Denton Water Works Park – Phased Master Plan

When looking at Water Works Park holistically, it's important to plan for the full-buildout of the park to ensure the various aquatic amenities and support spaces are placed in the appropriate areas to allow for efficient operations and future construction. Phase 1 is inclusive of the new, larger interactive children's area, a new lap / recreation pool, along with a new entry building and shade structures throughout the park. Phase 2 will address the existing waterslide tower and volleyball area with a the addition of new waterslides and a surfing simulator, while phase 3 will address the southeast corner of the park with a new multi-passenger waterslide tower. updates to lazy river and wave pool.

PHASE 2:

- Slide tower (New Slides)
- Surf Simulators
- Restroom
- Shade
- Rentable Spaces

PHASE 3:

- Multi-passenger Slides
- Lazy River Renovation
- Wave Pool Refurbish

Denton Water Works Park Remodel Cost Estimate: PHASE 2

Kimley»Horn

Denton Water Works Park Phase 2 Remodel

6/14/2023

Item	Unit	Quantity	Cost	Item Cost
General Conditions (+/- 10%)	LS	1	$320,000.00	$320,000.00
Demolition	LS	1	$300,000.00	$300,000.00
Slide Structure (6 Body Flume Slides with Landing Pool)	LS	1	$4,000,000.00	$4,000,000.00
Surf Machine	LS	1	$1,500,000.00	$1,500,000.00
Surf Pool	LS	1	$3,000,000.00	$3,000,000.00
Shade Sail Allowance	LS	1	$125,000.00	$125,000.00
Cantilever Shade Structures	EA	2	$15,000.00	$30,000.00
Family Restroom/Concession	SF	950	$375.00	$356,250.00
Filtration Building	SF	1,000	$375.00	$375,000.00
Maintenance Building at Skate Park	SF	2,500	$375.00	$937,500.00
5" Concrete Pool Deck Allowance	SF	30,000	$10.00	$300,000.00
8 ' HT. Vinyl Coated Chain Link Fence Allowance	LF	200	$80.00	$16,000.00
Grading, Site Preparation Allowance	LS	1	$275,000.00	$275,000.00
Onsite Utilities and Drainage Allowance	LS	1	$175,000.00	$175,000.00
Landscape and Irrigation Allowance	LS	1	$350,000.00	$350,000.00
FFE	LS	1	$300,000.00	$300,000.00
Contingency	LS	1	$200,000.00	$200,000.00
Sub Total Construction Costs				$12,559,750.00
CONSTRUCTION COSTS (SAY)				**$12,600,000.00**
10% Indirect Costs (Topo, Geo-tech, Engineering)				$1,260,000.00
Sub Total Project Costs w/ Indirect Expenses				$13,860,000.00
20% Inflation				$2,772,000.00
Sub Total Project Costs w/ Inflation				$16,632,000.00
TOTAL PROJECT COSTS w/ TWO YEARS INFLATION (SAY)				**$16,700,000.00**

**Costs are estimates as of 6/14/23*

Denton Water Works Park – Remodel Cost Estimate: PHASE 3

Kimley»Horn

Denton Water Works Park Phase 3 Remodel

6/14/2023

Item	Unit	Quantity	Cost	Item Cost
General Conditions (+/- 10%)	LS	1	$500,000.00	$500,000.00
Demolition	LS	1	$200,000.00	$200,000.00
Lazy River Renovation Allowance	LS	1	$1,500,000.00	$1,500,000.00
Wave Pool Renovation Allowance	LS	1	$1,500,000.00	$1,500,000.00
Family Raft Slide Structure (2 Raft Slides)	LS	1	$3,500,000.00	$3,500,000.00
20' Umbrella Shade Structures	EA	8	$9,000.00	$72,000.00
30' Group Shade Structures	EA	1	$30,000.00	$30,000.00
Cantilever Shade Structures	EA	4	$15,000.00	$60,000.00
5" Concrete Pool Deck Allowance	SF	30,000	$10.00	$300,000.00
8 ' HT. Vinyl Coated Chain Link Fence Allowance	LF	200	$80.00	$16,000.00
Grading, Site Preparation Allowance	LS	1	$200,000.00	$200,000.00
Onsite Utilities and Drainage Allowance	LS	1	$175,000.00	$175,000.00
Landscape and Irrigation Allowance	LS	1	$200,000.00	$200,000.00
FFE	LS	1	$250,000.00	$250,000.00
Contingency	LS	1	$200,000.00	$200,000.00
Sub Total Construction Costs				$8,703,000.00
CONSTRUCTION COSTS (SAY)				**$8,750,000.00**
10% Indirect Costs (Topo, Geo-tech, Engineering)				$875,000.00
Sub Total Project Costs w/ Indirect Expenses				$9,625,000.00
20% Inflation				$1,925,000.00
Sub Total Project Costs w/ Inflation				$11,550,000.00
TOTAL PROJECT COSTS w/ TWO YEARS INFLATION (SAY)				**$11,600,000.00**

**Costs are estimates as of 6/14/23*

South-Denton Aquatic Center (Indoor Option)

To meet the needs of the south-side residents, one option would be an indoor facility that includes a Therapy/ Wellness Pool, an 8-lane lap pool and a medium sized recreational aquatic facility that differentiates itself from other City offerings.

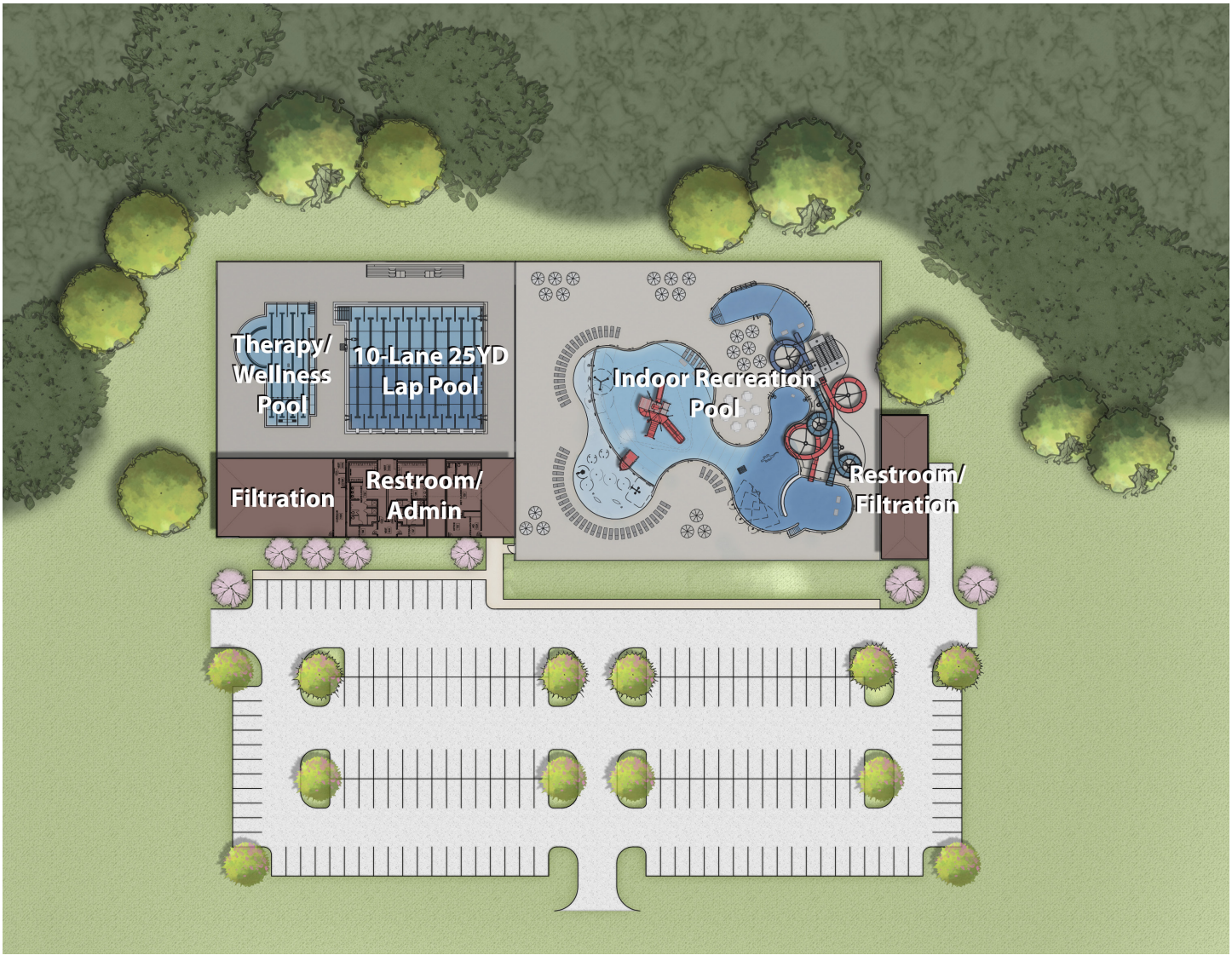
South-Side Aquatic Center (Indoor Option)

- Therapy/Wellness Pool with current channel
- A 10-Lane 25-yard Lap Pool
- Recreation Pool including:
  - Zero-entry beach
  - Children's play structure
  - Recreational lagoon area
  - Open/Enclosed Body Flume Slides
- Office/Admin/Mechanical Room Additions
- Parking

Capital Costs* (shown in 2023 dollars)

Construction Cost: $46.2M

Total Project Cost: $56M



Indoor South-Side Aquatic Center Cost Estimate

Kimley»Horn

Denton 10-Lane Indoor /Enclosed Medium Aquatic Center

1/5/2023

Item	Unit	Quantity	Cost	Item Cost
General Conditions (+/- 6%)	LS	1	$2,600,000.00	$2,600,000.00
Indoor Pool Building	SF	75,850	$400.00	$30,340,000.00
10 Lane x 25 YD Competition Pool	SF	6,215	$450.00	$2,796,750.00
Wellness Pool	SF	2,800	$450.00	$1,260,000.00
Digital Timing System and Sound	LS	1	$250,000.00	$250,000.00
Indoor Pool Heating System	LS	1	$150,000.00	$150,000.00
Multi-Use Pool	SF	10,500	$450.00	$4,725,000.00
Waterslides Allowance	LS	1	$900,000.00	$900,000.00
Play and Spray Features Allowance	LS	1	$500,000.00	$500,000.00
5" Concrete Pool Deck Allowance	SF	39,740	$10.00	$397,400.00
4" Concrete Sidewalk Allowance	SF	4,850	$9.00	$43,650.00
8 ' HT. Vinyl Coated Chain Link Fence Allowance	LF	540	$80.00	$43,200.00
Grading, Site Preparation Allowance	LS	1	$200,000.00	$200,000.00
Onsite Utilities and Drainage Allowance	LS	1	$200,000.00	$200,000.00
6" Concrete Parking Lot	SF	72,950	$11.00	$802,450.00
Landscape and Irrigation Allowance	LS	1	$200,000.00	$200,000.00
FFE	LS	1	$250,000.00	$250,000.00
Contingency	LS	1	$500,000.00	$500,000.00
Sub Total Construction Costs				$46,158,450.00
CONSTRUCTION COSTS (SAY)				**$46,200,000.00**
10% Indirect Costs (Topo, Geo-tech, Engineering)				$4,620,000.00
Sub Total Project Costs w/ Indirect Expenses				$50,820,000.00
10% Inflation				$5,082,000.00
Sub Total Project Costs w/ Inflation				$55,902,000.00
TOTAL PROJECT COSTS w/ TWO YEARS INFLATION (SAY)				**$56,000,000.00**

South-Denton Aquatic Center (Indoor 50M/Therapy and Outdoor Recreation Option)

To meet the needs of the south-side residents and the current and future needs Denton ISD, one option would be an indoor facility that includes a Therapy/Wellness Pool, a 50M x 25-yard lap pool and an outdoor medium sized recreational aquatic facility that differentiates itself from other City offerings. This concept would be contingent on operational agreements with the separate entities.

South-Side Aquatic Center (Indoor/Outdoor)

- Therapy/Wellness Pool with current channel
- 50Mx25-yard Lap Pool
- Outdoor Recreation Pool including:
  - Zero-entry beach
  - Children's play structure
  - Recreational lagoon area
  - Open/Enclosed Body Flume Slides
- Office/Admin/Mechanical Room Additions
- Parking
- Maintenance Area

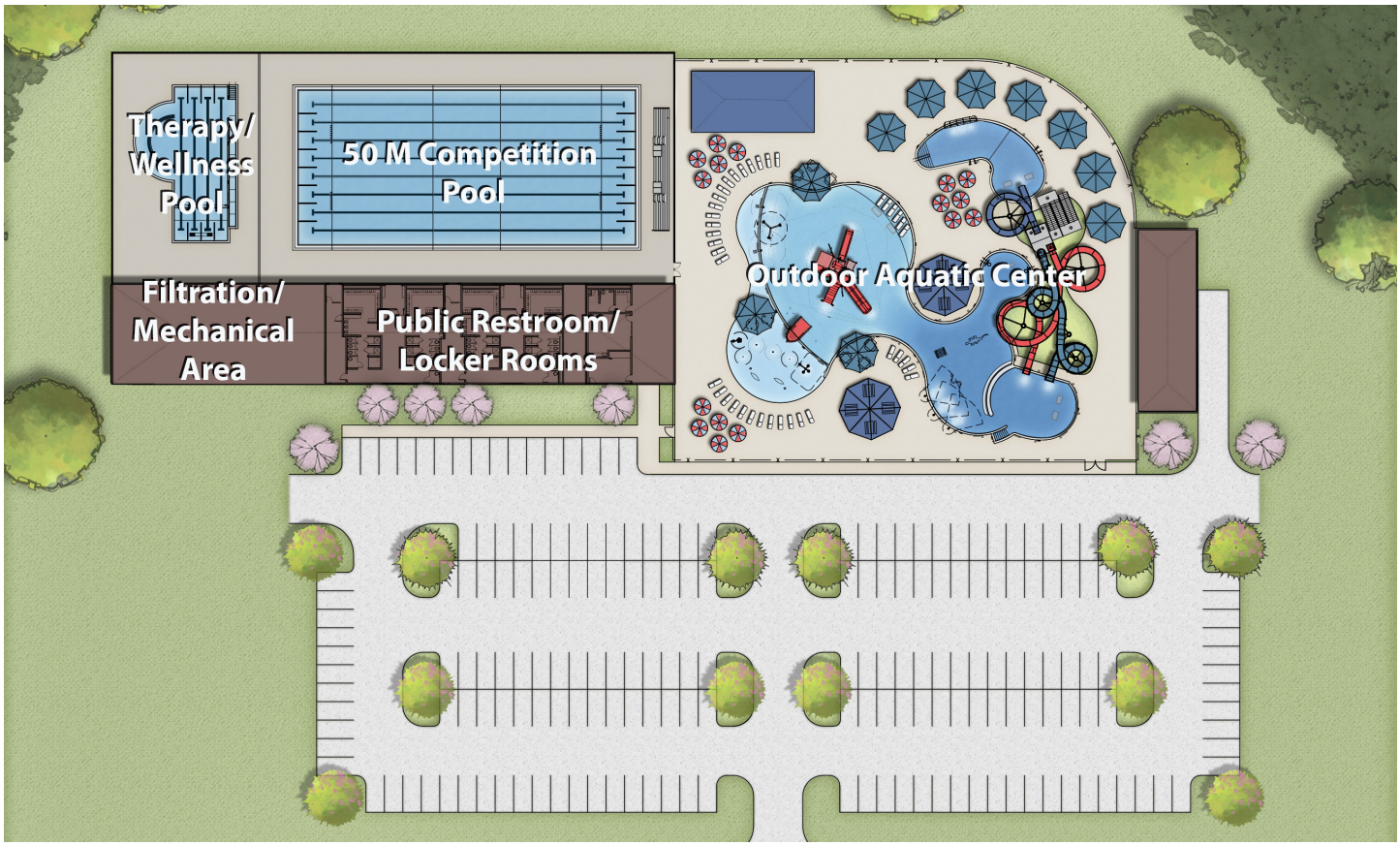
Capital Costs* (shown in 2023 dollars)

Construction Cost: $40M

Optional Outdoor Open Air Enclosure $15M

Total Project Cost w/o Open Air Enclosure: $48.5M

Project Cost w Open Air Enclosure: $66.5M



South-Denton Aquatic Center Indoor / Outdoor Cost Estimate: OPTION A - Without Open Air Enclosure

Kimley»Horn

Denton 50M and Therapy Indoor / Medium Outdoor

1/5/2023

Item	Unit	Quantity	Cost	Item Cost
General Conditions (+/- 6%)	LS	1	$2,200,000.00	$2,200,000.00
Indoor Pool Building	SF	50,500	$400.00	$20,200,000.00
Filtration/Restroom Building	SF	2,800	$350.00	$980,000.00
50M x 25 YD Competition Pool	SF	13,050	$450.00	$5,872,500.00
Wellness Pool	SF	2,800	$450.00	$1,260,000.00
Timing System	LS	1	$500,000.00	$500,000.00
Indoor Pool Heating System	LS	1	$150,000.00	$150,000.00
20' Dia. Umbrella Shade Structures	EA	10	$8,500.00	$85,000.00
Multi-Use Pool	SF	10,500	$450.00	$4,725,000.00
Waterslides Allowance	LS	1	$900,000.00	$900,000.00
Play and Spray Features Allowance	LS	1	$500,000.00	$500,000.00
30' Group Pavilion Allowance	EA	2	$30,000.00	$60,000.00
30'X 60' Group Pavilion	EA	1	$60,000.00	$60,000.00
5" Concrete Pool Deck Allowance	SF	39,740	$10.00	$397,400.00
4" Concrete Sidewalk Allowance	SF	4,850	$9.00	$43,650.00
8 ' HT. Vinyl Coated Chain Link Fence Allowance	LF	540	$80.00	$43,200.00
Grading, Site Preparation Allowance	LS	1	$200,000.00	$200,000.00
Onsite Utilities and Drainage Allowance	LS	1	$200,000.00	$200,000.00
6" Concrete Parking Lot	SF	72,950	$11.00	$802,450.00
Landscape and Irrigation Allowance	LS	1	$200,000.00	$200,000.00
FFE	LS	1	$250,000.00	$250,000.00
Contingency	LS	1	$200,000.00	$200,000.00
Sub Total Construction Costs				$39,829,200.00
CONSTRUCTION COSTS (SAY)				**$40,000,000.00**
10% Indirect Costs (Topo, Geo-tech, Engineering)				$4,000,000.00
Sub Total Project Costs w/ Indirect Expenses				$44,000,000.00
10% Inflation				$4,400,000.00
Sub Total Project Costs w/ Inflation				$48,400,000.00
TOTAL PROJECT COSTS w/ TWO YEARS INFLATION (SAY)				**$48,500,000.00**

OPTION B: With Open Air Enclosure

Kimley»Horn

Denton 50M and Therapy Indoor / Medium Outdoor

9/13/2023

Item	Unit	Quantity	Cost	Item Cost
General Conditions (+/- 6%)	LS	1	$2,200,000.00	$2,200,000.00
Indoor Pool Building	SF	50,500	$400.00	$20,200,000.00
Filtration/Restroom Building	SF	2,800	$350.00	$980,000.00
50M x 25 YD Competition Pool	SF	13,050	$450.00	$5,872,500.00
Wellness Pool	SF	2,800	$450.00	$1,260,000.00
Timing System	LS	1	$500,000.00	$500,000.00
Indoor Pool Heating System	LS	1	$150,000.00	$150,000.00
20' Dia. Umbrella Shade Structures	EA	10	$8,500.00	$85,000.00
Multi-Use Pool	SF	10,500	$450.00	$4,725,000.00
Waterslides Allowance	LS	1	$900,000.00	$900,000.00
Play and Spray Features Allowance	LS	1	$500,000.00	$500,000.00
30' Group Pavilion Allowance	EA	2	$30,000.00	$60,000.00
30'X 60' Group Pavilion	EA	1	$60,000.00	$60,000.00
5" Concrete Pool Deck Allowance	SF	39,740	$10.00	$397,400.00
4" Concrete Sidewalk Allowance	SF	4,850	$9.00	$43,650.00
8 ' HT. Vinyl Coated Chain Link Fence Allowance	LF	540	$80.00	$43,200.00
Grading, Site Preparation Allowance	LS	1	$200,000.00	$200,000.00
Onsite Utilities and Drainage Allowance	LS	1	$200,000.00	$200,000.00
6" Concrete Parking Lot	SF	72,950	$11.00	$802,450.00
Landscape and Irrigation Allowance	LS	1	$200,000.00	$200,000.00
FFE	LS	1	$250,000.00	$250,000.00
Contingency	LS	1	$200,000.00	$200,000.00
Sub Total Construction Costs				$39,829,200.00
CONSTRUCTION COSTS (SAY)				**$40,000,000.00**
Open Air Enclosure				**$15,000,000.00**
CONSTRUCTION COST W/ OPEN AIR ENCLOSURE				**$55,000,000.00**
10% Indirect Costs (Topo, Geo-tech, Engineering)				$5,500,000.00
Sub Total Project Costs w/ Indirect Expenses				$60,500,000.00
10% Inflation				$6,050,000.00
Sub Total Project Costs w/ Inflation				$66,550,000.00
TOTAL PROJECT COSTS w/ TWO YEARS INFLATION (SAY)				**$66,500,000.00**

South-Denton Aquatic Center (Indoor 50M/Dive Well and Outdoor Recreation Option)

To meet the needs of the south-side residents, current and future needs Denton ISD and the UNT Swimming and Diving Team, one option would be an indoor facility that includes a Dive Well, a 50M x 25-yard lap pool, separate dedicated locker rooms for UNT and an outdoor medium sized recreational aquatic facility that differentiates itself from other City offerings. This concept would be contingent on operational agreements with the separate entities.

South-Side Aquatic Center (Indoor/Outdoor)

- Competitive Dive Well including springboard and platform diving
- 50Mx25-yard Lap Pool
- Outdoor Recreation Pool including:
  - Zero-entry beach
  - Children's play structure
  - Recreational lagoon area
  - Open/Enclosed Body Flume Slides
- Office/Admin/Mechanical Room Additions
- Parking
- Maintenance Area

Capital Costs* (shown in 2023 dollars)

Construction Cost: $46.2M

Optional Outdoor Open Air Enclosure $15M

Total Project Cost w/o Open Air Enclosure: $56M

Project Cost w Open Air Enclosure: $74.1M

South-Denton Aquatic Center Indoor / Outdoor Cost Estimate: Without Open Air Enclosure

Kimley»Horn

Denton 50M Indoor / Medium Outdoor

9/13/2023

Item	Unit	Quantity	Cost	Item Cost
General Conditions (+/- 6%)	LS	1	$2,400,000.00	$2,400,000.00
Indoor Pool Building	SF	52,500	$400.00	$21,000,000.00
Additional Locker Rooms/Office/Meeting Rooms	SF	6,000	$400.00	$2,400,000.00
Filtration/Restroom Building	SF	2,800	$375.00	$1,050,000.00
50M Competition Pool	SF	13,050	$450.00	$5,872,500.00
Timing System	EA	1	$500,000.00	$500,000.00
Bulkhead	EA	2	$275,000.00	$550,000.00
Dive Well	SF	4,300	$450.00	$1,935,000.00
Dive Platform	EA	1	$1,500,000.00	$1,500,000.00
Indoor Pool Heating System	LS	1	$150,000.00	$150,000.00
20' Dia. Umbrella Shade Structures	EA	10	$8,500.00	$85,000.00
Multi-Use Pool	SF	10,500	$450.00	$4,725,000.00
Waterslides Allowance	LS	1	$900,000.00	$900,000.00
Play and Spray Features Allowance	LS	1	$500,000.00	$500,000.00
30' Group Pavilion Allowance	EA	2	$30,000.00	$60,000.00
30'X 60' Group Pavilion	EA	1	$60,000.00	$60,000.00
5" Concrete Pool Deck Allowance	SF	39,740	$10.00	$397,400.00
4" Concrete Sidewalk Allowance	SF	4,850	$9.00	$43,650.00
8 ' HT. Vinyl Coated Chain Link Fence Allowance	LF	540	$80.00	$43,200.00
Grading, Site Preparation Allowance	LS	1	$200,000.00	$200,000.00
Onsite Utilities and Drainage Allowance	LS	1	$200,000.00	$200,000.00
6" Concrete Parking Lot	SF	72,950	$11.00	$802,450.00
Landscape and Irrigation Allowance	LS	1	$200,000.00	$200,000.00
FFE	LS	1	$250,000.00	$250,000.00
Contingency	LS	1	$350,000.00	$350,000.00
Sub Total Construction Costs				$46,174,200.00
CONSTRUCTION COSTS (SAY)				**$46,200,000.00**
10% Indirect Costs (Topo, Geo-tech, Engineering)				$4,620,000.00
Sub Total Project Costs w/ Indirect Expenses				$50,820,000.00
10% Inflation				$5,082,000.00
Sub Total Project Costs w/ Inflation				$55,902,000.00
TOTAL PROJECT COSTS w/ TWO YEARS INFLATION (SAY)				**$56,000,000.00**

**Costs are estimates as of _____.*

South-Denton Aquatic Center Indoor / Outdoor Cost Estimate: With Open Air Enclosure

Kimley»Horn

Denton 50M Indoor / Medium Outdoor

9/13/2023

Item	Unit	Quantity	Cost	Item Cost
General Conditions (+/- 6%)	LS	1	$2,400,000.00	$2,400,000.00
Indoor Pool Building	SF	52,500	$400.00	$21,000,000.00
Additional Locker Rooms/Office/Meeting Rooms	SF	6,000	$400.00	$2,400,000.00
Filtration/Restroom Building	SF	2,800	$375.00	$1,050,000.00
50M Competition Pool	SF	13,050	$450.00	$5,872,500.00
Timing System	EA	1	$500,000.00	$500,000.00
Bulkhead	EA	2	$275,000.00	$550,000.00
Dive Well	SF	4,300	$450.00	$1,935,000.00
Dive Platform	EA	1	$1,500,000.00	$1,500,000.00
Indoor Pool Heating System	LS	1	$150,000.00	$150,000.00
20' Dia. Umbrella Shade Structures	EA	10	$8,500.00	$85,000.00
Multi-Use Pool	SF	10,500	$450.00	$4,725,000.00
Waterslides Allowance	LS	1	$900,000.00	$900,000.00
Play and Spray Features Allowance	LS	1	$500,000.00	$500,000.00
30' Group Pavilion Allowance	EA	2	$30,000.00	$60,000.00
30'X 60' Group Pavilion	EA	1	$60,000.00	$60,000.00
5" Concrete Pool Deck Allowance	SF	39,740	$10.00	$397,400.00
4" Concrete Sidewalk Allowance	SF	4,850	$9.00	$43,650.00
8 ' HT. Vinyl Coated Chain Link Fence Allowance	LF	540	$80.00	$43,200.00
Grading, Site Preparation Allowance	LS	1	$200,000.00	$200,000.00
Onsite Utilities and Drainage Allowance	LS	1	$200,000.00	$200,000.00
6" Concrete Parking Lot	SF	72,950	$11.00	$802,450.00
Landscape and Irrigation Allowance	LS	1	$200,000.00	$200,000.00
FFE	LS	1	$250,000.00	$250,000.00
Contingency	LS	1	$350,000.00	$350,000.00
Sub Total Construction Costs				$46,174,200.00
CONSTRUCTION COSTS (SAY)				**$46,200,000.00**
Open Air Enclosure				$15,000,000.00
CONSTRUCTION COSTS (SAY)				**$61,200,000.00**
10% Indirect Costs (Topo, Geo-tech, Engineering)				$6,120,000.00
Sub Total Project Costs w/ Indirect Expenses				$67,320,000.00
10% Inflation				$6,732,000.00
Sub Total Project Costs w/ Inflation				$74,052,000.00
TOTAL PROJECT COSTS w/ TWO YEARS INFLATION (SAY)				**$74,100,000.00**

**Costs are estimates as of _____.*

Spraygrounds

While spraygrounds do not allow for learn-to swim and other programs offered by the City of Denton, the development of spraygrounds around the city is a good way to supplement existing and proposed aquatic facilities for short-period recreational activities. Four parks have been identified for sprayground implementation over the next 10 years.

1

Carl Young Sr. Sprayground Expansion

2

Briercliff – Neighborhood Sprayground

3

Southwest Park – Neighborhood Sprayground

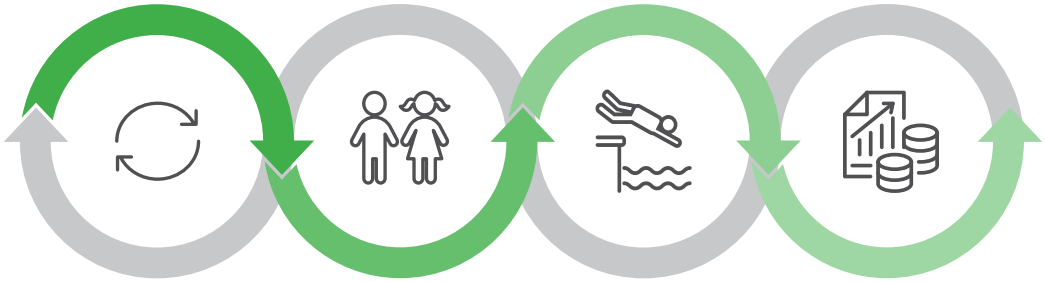
4

Rayzor Ranch – Neighborhood Sprayground

6

Section 6:
Operations Analysis

Annual Financial Impact



1. **Additions to Water Works Park are projected to pay for themselves operationally to help reduce the current annual subsidy**

2. **The new children's area and recreation pool will help increase overall attendance and revenue by providing more attractive family attractions at the park**

3. **A new South Denton Aquatic Center will have an annual subsidy of $900K to $1.4M dependent on the size of the lap pool**

   (*2023 Estimates)

4. **50-meter indoor pool addition at the NAT will increase annual expenses by $675,000 and generate $300,000 in revenue**

   (*2023 Estimates)

Financial Impact Study

Revenue analysis includes special user group usage and facility per capita spending trends, thus developing an opinion of revenue for the first five years of operation. Recreation programming revenue is based on user groups and local programming fees. Fee structure is based on fees from members and other users to project per capita income. Revenue is estimated, taking recommended fee schedules into account. All revenue assumptions reflect multiplying attendance by per capita and adding special user group income.

Expense analysis includes a detailed budget model for estimating probable expenses for major areas of labor, contractual services, commodities, and utilities. User projections are made based on programming. Expenses are estimated, taking into account hours of operation, attendance projections, local weather patterns, local utility rates, and other key items. Operating data from other facilities in the area were reviewed and taken into account to form projections.

Programming

Any program schedule will require flexibility to adapt to specific needs of the community. It is the responsibility of the aquatic supervisor to monitor user group demands and adjust schedules accordingly. Revenue projections are based on marketing programming that would include the following programs: Swim Meet Rental, USA Swim Team, High School Swim Team, City Swim Team, Summer Swim Lessons, Winter Swim Lessons, Lifeguard Training, Wellness Programming, Birthday Parties, and Private Rentals. It is assumed that these user groups, because of their high volume of use, will pay a lower fee per person admission. Aquatic programming will need to be scheduled so as not to significantly impact community recreation programming.

Admission Fees

In order to project revenue, fee schedules have been established. Three general approaches to evaluating the fee structure of an aquatic center include the following:

1. Maximize revenue by charging what the market will support. Programs and facilities operate with positive cash flow. If excess funds are available at season's end, they can be used to support under-funded programs.
2. Break-even in the operation of the facility. This approach is increasing in popularity as funding is becoming limited to organizations that use the facility. Capital funds are used to create the facility; operational funds are generated from the user on a break-even basis.
3. Subsidy pricing historically has been the policy of many community facilities.

A critical component of an aquatics fund management protocol is the revenue and pricing policy. For the purposes of this study, the existing per capita expenditure at Water Works Park ($14.66) has been used as a baseline for the revenue projections.

For the South Side Aquatics Center a fee structure that matches the existing fee structure at the Natatorium has been used which is a $2.50 per capita expenditure. For the outdoor component a per capita expenditure of $5.95 was utilized.

In estimating operating expenses, there are three industry accepted methods. The first method would be to establish a cost per square foot of operation. This sum is then interpolated into the projected size and scope of the new facility. The second method is to compare the operating costs of facilities around the country comparable in size and scope and use those numbers in estimating the operating expense of the new aquatic facility. The potential and probable flaws in the above two methods would result from their failure to account for local prevailing utility rates and wage rates.

In order to address those factors that are unique the area, the consulting team has developed a third model for estimating the probable expenses for the major areas of labor, contractual services, commodities, and utilities. Expenses are estimated considering hours of operation, local weather patterns, local utility rates and other key items.

Projected annual payroll expenses are listed by part-time classifications. The projected cost reflects the aquatic facility's total cost, including benefits and taxes. Scheduling employees is determined by programming demand and management procedure. In reviewing operational procedures from other facilities across the United States,

significant differences have been found in labor costs and staffing levels associated with the operation of an aquatics facility of this caliber. While it is quite possible to operate a facility in a low cost-control or reduction format, it is the consulting team's opinion that this approach will have a negative impact on the operation, maintenance, safety, and success of the facility. Labor expense for the employer were calculated taking taxes and benefits into account. Part-time employees have an overhead factor of 20%.

Insurance

The most economical method of insuring the liability and property of the proposed options is to package the policy with other insured property. This has not been included in the facility budgets.

Repairs and Maintenance

The manufacturers of several pieces of the mechanical equipment recommend annual maintenance programs to insure the proper performance of the equipment. Some of this work will need to be subcontracted for completion. In addition, for daily operation of the facility, miscellaneous items will need to be repaired by outside firms.

Electricity

The calculations for electricity and natural gas below are based upon 2022 utility rate information. A figure of $0.08 per kWh was estimated. For the purpose of calculating operation expense, it is assumed that the filter motors for the pool will operate 24 hours a day, 365 days per year.

Water and Sewer

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

Direct Facility Expenses

Commodities are the day-to-day items used by the facility staff to operate the aquatic facility. Office supplies, program supplies, janitorial supplies, repair supplies and chemicals are all required. In determining the annual chemical expense, the chemical treatment assumes the use of sodium hypochlorite (liquid chlorine) and muriatic acid (pH buffer). Chemical use will depend on bather load and the water being chemically balanced. In estimating the annual cost, medium bather load figures were assumed.

Assumptions

Personnel Costs

- Full-time Aquatic Facility Director (Salary) - $80,000
- Full-time Coordinators (2) $56,000
- Full-time Maintenance Technician (Salary) - $70,000
- Part-time (lifeguards–hourly rates) - $16-$18
- Benefit / overhead percentage – Based on 40% allocation for full-time

Utility Rates

- Water (per 1,000 gallons) - $4.00
- Electric (per KWH) - $0.08
- Natural Gas (per therm) - $1.00

Other Expenses

- Chlorine (per gallon / pound) - $2.00
- Insurance (property / liability) – included

Hours of Operation

- Indoor aquatic facilities are assumed to operate similar to the existing schedule of the Natatorium
- Outdoor aquatics to operate on same schedule as WWP and CCP.
- Use outdoor flat water in shoulder seasons

Costs are in 2022 dollars

The following table takes into consideration the revenue streams from special user group and general attendance, resulting in an opinion of revenue for the Water Works Park expansion and the indoor 50-meter addition to the Natatorium.

CHART AQUATIC RESEARCH TOOL	Water Works Park Expansion	Natatorium 50-Meter Pool Addition
Attendance	**18,490**	**93,363**
Expense Budget	**$257,657**	**$671,299**
Personnel	$148,299	$167,565
Direct Expenses	$51,289	$147,339
Utilities	$5,404	$24,397
Programs	$27,638	$12,865
Capital Replacement Fund	$64,000	$136,300
Revenue Budget	**$307,308**	**$315,589**
Daily Admissions / Memberships	$250,972	$80,907
Swim Team Revenue (Lane Rentals / Event Rentals)		$218,500
Food and Beverage	$38,519	$16,181
Rentals	$16,000	–
Cost Recovery	**119%**	**47%**

The following table takes into consideration the revenue streams from special user group and general attendance, resulting in an opinion of revenue for the Indoor / Outdoor options explored for the South Side Aquatic Center.

CHART AQUATIC RESEARCH TOOL	8-lane + Program + Outdoor	50M + Program + Outdoor	50M + Program + Dive + Outdoor
Attendance	95,845	122,645	125,045
Expense Budget	**$1,703,951**	**$2,270,189**	**$2,696,259**
Personnel	$840,900	$983,115	$1,063,425
Direct Expenses	$250,495	$333,940	$449,854
Utilities	$293,897	$471,074	$646,121
Programs	$157,959	$257,959	$257,959
Capital Replacement Fund	$160,700	$224,100	$278,900
Revenue Budget	**$804,060**	**$1,175,260**	**$1,262,510**
Daily Admissions / Memberships	$364,718	$364,718	$364,718
Swim Team Revenue	$116,400	$487,600	$574,850
Aquatic Programs	$233,264	$233,264	$233,264
Food and Beverage	$68,878	$68,878	$68,878
Rentals	$20,800	$20,800	$20,800
Cashflow	($899,891)	($1,094,928)	($1,433,749)
Cost Recovery	**47%**	**52%**	**47%**

Operational Considerations

There are several areas of an aquatic facility's operation that can be throttled to increase the revenue generation or reduce operating expenses.

Operational schedule

Both revenue and expenses are highly dependent on an aquatic facility's operational schedule. Aquatic facilities have some expenses that are relatively fixed such as utilities, maintenance, and chemicals, while other expenses, such as part-time staffing, fluctuate based on hours of operation and the number of competitive events hosted. Aquatic operators should maintain accurate data surrounding facility usage and revenue to determine the best schedule for the facility that balances fiscal sustainable.

Fees

Rental fees are the commonly "throttled" area to increase revenue at an indoor, competitive aquatic centers specifically for long-course lane rentals which are at a premium during the April to August long-course competitive swimming season. Ensuring rental rates are set to not only cover operating costs but allow for excess revenue can allow the facility to reach a higher level of sustainability. For Water Works Park and the Southside Aquatic Center, rental fees for cabanas, pavilions and private rentals can generate a substantial amount of revenue during the summer season.

Partnerships

Operational partnerships can provide additional revenue to aquatic centers by developing agreements with school districts, local universities, swim clubs, and other aquatic user groups to rent pool time, or by agreeing to long-term contracts at slightly discounted rates for guaranteed revenue. Sponsorship banners can be sold to local businesses and exclusive or sole-use agreements developed for the sale of food and beverage.

Contracted vs in-house operations

The opportunity exists within aquatic operations to offer some services and programs in-house, while contracting out services for others. Offerings where this can be explored are:

- Development of a City of Denton sponsored USA Swimming Club Team
- Competitive swimming program (partnering with a local swim club to offer a competitive swim team as a facility tenant)
- Competitive diving program (facility tenant)
- Space rental (tenant) to UNT, TWU for specialty programming and development programs

7

Section 7: *Partnerships*

Partnership Scenarios

Forms of Partnerships

Partnership relationships usually exist in one of two forms as outlined in the following examples:

Investment Partnerships:

Parks & Recreation Departments, Schools, and/or the private sector and/or the nonprofit engage in equity construction of a capital asset. In recent years these facilities have included gymnasiums and fitness facilities.

Program Partnerships:

Parks & Recreation Departments, Schools, and/or the private sector and/or the nonprofit engage in equity operation of a capital asset. These programs are typically outsourced by the public or nonprofit sector organization to the private sector. In these instances, it is determined that the public sector is better off managing the activity rather than producing it. In recent years these programs have included facility management, specialized training programs, and specific skill activities.

Establishing an Investment Partnership relationship can be tricky, especially when considering a partnership involving several entities. The structure of such a relationship must allow for consistent operations, policy making, and operational management of the facility after it is open. There is a potential for the relationship to be very complex and challenging given the financial structure, the differences in the makeup of the policy making boards, and the administrative structures of each entity.

Program Partnerships would come after the Investment Partnership relationship is created and executed. Program Partnerships could be as complex as determining financial access to the facility to use and the allocation of time or identifying how the facility will incorporate programs. Each of these issues will need to be discussed so a clear idea of financial and operational issues is understood and agreed upon among the partners before the facility is ready to open.

Typically, before any successful partnership is undertaken, these three critical considerations must be addressed.

1. **There is a Common Vision:** a compelling picture of the possibilities must be shared by all. This does not mean that everyone necessarily needs to have the same goals, but all partners must be able to achieve their goals within the “big picture” of the project.
2. **Impact of the New Relationship:** adding real value to the agencies involved. If the involved agencies see the partnership creating the ability to improve productivity, efficiency, and profitability while achieving the desired goals, then the desired impact is mutual and the partnership is one step closer to achieving the desired goals.
3. **Knowing through Trust:** is never achieved easily or quickly. To achieve trust, there must be no hidden agendas; the ideas of all potential partners regarding the goals of the project must be out in the open. There must be similar interest but separate expertise regarding the project, which is to say that each partner should “bring something to the table.”

Develop partnerships between multiple community organizations:

- Public Sector and Public Sector
  - Schools with Park and Recreation Agencies
- Public Sector and Private Sector
  - Park and Recreation Agencies and the Private Sector
- Public Sector and Non-Profits
  - Schools, Park and Recreation Agencies and Non-Profits

Joint Use and Joint Partnership Agreements

Joint Use Agreements and other collaborations with area municipalities, educational institutions, businesses, healthcare providers, and other organizations and institutions can be significant sources of revenue and programming opportunities. A Joint Use Agreement has the potential of increasing programming opportunity and financial support. While this process is difficult to manage in terms of organizing the different priorities and agendas of the different organizations, it has proven worthwhile in many communities.

The following are some reasons an organization may wish to engage into a partnership relationship:

- Cost to provide service is high
- Creates budget and creative programming opportunities
- Spreads the risk among the partners
- Merging resources creates a higher level of service delivery
- Offers entrepreneurial opportunities not always affordable to public agencies
- Planning changes the mindset of the players and forces them to think creatively
- Encourages a market driven approach rather than a product driven approach

The desire to partner with others is popular when there is mutual interest in building a major capital asset. What potentially exists in partnership relationships frequently occurs between one or more sectors such as two or more public sector organizations, and the public sector and the nonprofit organizations, and the private sector and the public sector.

When analyzing the existing joint-use agreement between the City of Denton and the Denton Independent School District for the Natatorium, it is structured where the subsidy for the facility is split 50/50 between the City and the School District. When looking at possible future aquatic facilities coming online within the City, several partnership opportunities exist between the City, School District and the University of North Texas. Texas Woman's University is assumed to be a tenant of any future aquatic facility that can accommodate their needs for their artistic swimming program. The below chart identifies some possible scenarios between the partners in terms of location, utilization, capital funding and operational funding.

City of Denton | Denton ISD	UNT | Denton ISD | City	Denton ISD | UNT	City of Denton | UNT
✦ Indoor aquatic center ✦ Located on school district or city land ✦ Capital and/or operational partners ✦ Community use and programs ✦ Program pool ✦ Serves as home pool for two high schools ✦ Continue existing partnership at Denton Natatorium	✦ Indoor aquatic center ▪ 50-meter pool with diving ✦ Located on UNT or COD land ✦ Operated by City of Denton ✦ UNT receives preferred lane allocation for practice and competitive events ✦ Practice facility for Guyer and Denton HS?	✦ Indoor competition pool ▪ 50-meter pool with diving ✦ Natatorium on UNT or DISD Property ✦ Joint-use agreement ✦ Operated by DISD ✦ Practice and events facility ✦ Limited community access	✦ Indoor competition pool ▪ 50-meter pool with diving ✦ Located at UNT or COD land ✦ Operated by City of Denton ✦ UNT receives preferred lane allocation for practice and competitive events ✦ Community use and programs ✦ Program pool

APPENDIX

A

ADA: Americans with Disabilities Act. Under Title III, no individual may be discriminated against on the basis of disability with regards to the full and equal enjoyment of the goods, services, facilities, or accommodations of any place of public accommodation by any person who owns, leases (or leases to), or operates a place of public accommodation.

Age Distribution: Using the 2000 Census, numbers and percentages are available by census tract showing different age groups, thus providing a median age.

American Alliance for Health, Physical Education, Recreation and Dance: AAHPERD is an alliance of five national associations, six district associations, and a research consortium which support healthy lifestyles through high quality programs.

Aquatic: Of or pertaining to water.

Aquatic Design: Detailed drawings of pool shells, pool structures, pool filtration systems, and other equipment for new or soon-to-be renovated swimming facilities.

Aquatic Center/Facility: A place designed for fitness swimming, recreation swimming, swim lessons, and water therapy programs.

Aquatic Exercise Association: A not-for-profit educational organization committed to the advancement of aquatic fitness worldwide.

Aquatic Governing Bodies: Organizations with rules and regulations that preside over various aquatics.

Aquatic Providers: Facilities offering aquatics.

Aquatic Therapy: Health-oriented water programs for arthritis, obesity, surgery recovery, athletic injuries, meditation, etc.

Aquatics: Water sports, including swimming, diving, water polo, synchronized swimming, etc.

Arthritis Foundation: A not-for-profit contributor to arthritis research.

B

Baby Boomers: An increased number of people born between 1946 and 1964.

Bathhouse: A building with restrooms, showers, family changing rooms, locker rooms, concessions, supplies, and equipment.

C

Census Tract: A small, permanent subdivision of a county with homogeneous population characteristics, status, and living conditions.

Centers for Disease Control and Prevention: One of the major operating components of the Department of Health and Human Services, CDC's mission is to promote health and quality of life by preventing and controlling disease, injury, and disability.

Center for Urban and Regional Studies: Conducts and supports research on urban and regional affairs to build healthy, sustainable communities across the country and around the world.

Competition Community: Athletes, coaches, trainers, etc. who work to compete in aquatics.

Competition Venue: Facility capable of hosting aquatics with regulation sized pools, spectator seating, etc.

CPR: Cardiopulmonary Resuscitation is an emergency medical procedure for a victim of cardiac or respiratory arrest.

D

Demographics: Selected population characteristics taken from publicly available data to determine shifting trends used in marketing. 16

Disposable Income: Income available for saving or spending after taxes.

E

Ellis and Associates: Lifeguard training program.

F

Facility Audit: Report that identifies areas for extending life expectancy and/or improving operational efficiency of existing pools and natatoriums.

Feasibility Study: Business plan with concept designs and project and operating costs for a proposed aquatic or sports recreation facility.

FINA: Federation Internationale De Natation Amateur governs Masters Swimming, Open Water, Diving, Water Polo and Synchronized Swimming.

Fitness Community: People engaged in water exercise with related devices and equipment for water-based exercise options.

H

HVAC/DH System: Heating, ventilating, air conditioning / dehumidification structure for a natatorium.

L

Leisure Industry: Entertainment, recreation, and tourism related products and services.

Leisure Pools: Free-form pools that include fun attractions such as waterslides and play features.

LEED: Leadership in Energy & Environmental Design in green building practices.

Lessons Community: People engaged in swim lessons, drown proofing, lifesaving, lifeguarding, and CPR instruction.

Long Course: The Olympic distance of 50-meters that has a competition season from April to August each calendar year.

M

Median Age: This measure divides the age distribution into two equal parts: one half of the cases falling below the median value and one-half above the value.

Median Household Income: Income of the householder and all other persons 15 years old and over in the household. Median represents the middle of the income in a demographic location, dividing the income distribution into two equal parts, one having income above the median and the other having income below the median.

Mosaic Types: Population classifications in terms of socio-demographics, lifestyles, culture, and behavior.

N

Natatorium: The room where an indoor swimming pool is located.

National Center for Health Statistics: Part of the CDC, including diseases, pregnancies, births, aging, and mortality data.

National Recreation and Parks Association: The voice advocating the significance of making parks, open space, and recreational opportunities available to all Americans.

National Sporting Goods Association: NSGA supports retailers, dealers, wholesalers, manufacturers, and sales agents with survey data in the sporting goods industry.

NCAA Swimming: The National Collegiate Athletic Association governs collegiate swimming competition in the USA.

NFHS: The National Federation High School governs high school varsity swimming.

P

Per Capita Income: Average obtained by dividing Total Income by Total Population.

Pro Forma: Projected cash flow in a business plan.

R

Recreation Community: People engaged in the fun and leisure of swimming.

Red Cross: Preparedness programs in first aid, cardiopulmonary resuscitation, and automated external defibrillator.

S

State Construction Codes: Public safety building requirements by state.

Short Course: The 25-yard distance that is the minimum requirement for NFHS, NCAA and USA Swimming with a competition season of September to March.

T

Therapy Community: People engaged in rehabilitation performed in water involving exercise and motion in the presence of an aquatic therapist.

Therapy Pool: Pool with warm water usually between 87 - 92 degrees Fahrenheit used for aquatic therapy.

Trends: The general course or prevailing tendency of a market.

U

United States Water Fitness: A non-profit, educational organization committed to excellence in educating and promoting aquatics, including national certifications in water exercise.

USA Swimming: National Governing Body for competitive swimming in the U.S. divided into local swimming committees.

United States Masters Swimming: National organization that provides organized aquatic workouts, competitions, clinics, and workshops for adults 18+.

U.S. Consumer Product Safety Commission: Works to ensure the safety of consumer products from unreasonable risks of serious injury or death.7

W

Waterpark: Destination-oriented facility that draws patrons from greater than 25 miles.

Appendix B: General Limiting Conditions

This study is based on information that was current as of February 2023. Every reasonable effort has been made in order that the data reflects the most timely and current information possible and is believed to be reliable. This study is based on estimates, assumptions, and other information developed by the consulting team from independent research.

No warranty or representation is made by the consultants that any of the projected values or results contained in this study will actually be achieved. No responsibility is assumed for inaccuracies in reporting by the client, its agents and representatives or any other data source used in preparing or presenting this study.

This entire report is qualified and should be considered in light of the above conditions and limitations.

Appendix C: Denton Aquatics CIP Projects

CMP / CIP	Priority Code	Priority	Status	Project Title	Project Manager	Project Scope	Project Description	Primary Funding Source	Master Plan Priorities	Master Plan Item	Denton 2040 Plan Priority
CIP	Green	High	In-Progress	Aquatics Master Plan	Parks	Single Year Project	Complete an Aquatic Master Plan for WWP, NAT, CCP, and splash pad(s) to prepare for future City and DISD bond programs. In addition, outline potential partnerships with UNT and TWU for related facilities and amenities.	General Fund	Yes	1.3.1	No
CIP	Red	Low	Not Started	CCP Slide Replacement	Parks	Single Year Project	Replacement of blue tower slide	CMP-AQUA	Yes	2.2.7	No
CIP	Yellow	Medium	Not Started	NAT Building addition to generate Revenue	Parks	Single Year Project	Work with Denton ISD to develop classroom / birthday party / workout / weight room / new entrance desk	DISD	Yes	2.2.6	Yes
CIP	Red	Low	Not Started	NAT Engineer Inspection	Parks	Single Year Project	Have an engineer inspect all the beams inside the pool area DISD	CMP-AQUA	Yes	2.2,6	No
CIP	Yellow	Medium	Not Started	NAT Flat Roof Replacement	Facilities	Single Year Project	Remove and replace flat roofs -3	DISD	Yes		No
CIP	Yellow	Medium	Not Started	NAT HVAC for Spectator area	Facilities	Single Year Project	Add additional HVAC units for the spectator area - Bring in fresh air for spectators during events	DISD	Yes		No
CIP	Yellow	Medium	Not Started	NAT Locker Rooms	Facilities	Single Year Project	Renovate the locker rooms, new lockers, make one locker area, make showers single unit	DISD	Yes		No
CIP	Yellow	Medium	Not Started	NAT Pump Room Renovation	Parks	Single Year Project	Need to start replacing filtration,circulation, vfd, UV, controllers systems , Heaters - 20 years old	DISD	Yes	2.2,6	No
CIP	Yellow	Medium	Not Started	NAT Recreation Center Construction	Facilities	Multiple Year Project	Renovation and expansion?	Unfunded Bonds	Yes	1.3.1	No
CIP	Yellow	Medium	Not Started	NAT Recreation Center Design	Parks	Single Year Project	Expansion of the NAT to a rec center	Unfunded Bonds	Yes	1.3.1	No
CIP	Yellow	Medium	Not Started	NAT Sand Filter Complete replacement, circ pump, strainer, valves	Parks	Single Year Project	Replace 5 sand filters, circulation pumps, strainer filters for large contaminants, and valves	DISD	Yes	2.2,6	No
CIP	Red	Low	Not Started	NAT Second Natatorium	Parks	Single Year Project	Second Natatorium with possible partnerships with DISD, UNT and/or TWU.	Unfunded Bonds	Yes	2.2.6	No
CIP	Yellow	Medium	Not Started	NAT Security System upgrade	Tech Services	Single Year Project	Upgrade the cameras, front door access, fire and alarm system	DISD	Yes		No
CIP	Yellow	Medium	Not Started	NAT Water Heater and Pipe Upgrade	Parks	Single Year Project	Replace/Upgrade existing water heater for showers/mechanical in building	CMP-AQUA	Yes	2.2,6	No
CIP	Yellow	Medium	Not Started	WWP Wave Oz / Flow Rider with Retractable Roof system (Master Plan)	Parks	Single Year Project	New amenity/revenue generator -Add a new amenity with retractable roof that can be used year-round. Flow Riders attract users of all ages and can be utilized for national competition traveling circuits, parties, rentals, and events. Ideal amenity will include deck space for rentable cabanas, dining, and watching big-screen entertainment above the amenity. - Master plan item	Unfunded Bonds	Yes	2.2.6	No
CIP	Yellow	Medium	Not Started	WWP Admissions Building and Bath House Renovation	Parks	Single Year Project	Renovation of Admissions Building to change layout of entry point, add a walk-through Gift Shop at exit, add space to existing First Aid office to accommodate a staff break room that can accommodate 30 employees, update the bath house with touchless amenities/new floors/lights/showers, add ADA areas for family changing rooms.	CMP-AQUA	Yes	2.2.5	No
CIP	Red	Low	Not Started	WWP Cassion Movie Screen	Parks	Single Year Project	Develop a plan to add a structure to the caisson above the wave pool that will house a large screen for advertising, movie nights, events and programming.	Unfunded Bonds	Yes	2.2.5	No
CIP	Green	High	Not Started	WWP Childrens Interactive Play structure (Master Plan)	Parks	Single Year Project	Large play structure to address growth/usage and replace a 20 year old structure. The current structure is hard to find replacement parts for. Pool shell is damaged and needs to be replaced.	Unfunded Bonds	Yes	2.2.5	No
CIP	Yellow	Medium	Not Started	WWP Filtration Upgrade	Parks	Single Year Project	Need to replace the filtration, circulation pumps, variable speed drives, UV, controllers systems for the slide catch, children's and river. The current filter and circulation pump are 20 years old and the UV system is over ten years old and needs to be replaced due the manufacture is no longer supporting the unit - not producing parts for the unit.	Unfunded Bonds	Yes	2.2.5	No
CIP	Yellow	Medium		WWP Maintenance Facility	Parks	Single Year Project	To design and construct a aquatic maintenance facility. This facility will be placed where the existing skate park is. estimated 18,000 ft2 facility	Unfunded Bonds	Yes		
CIP	Green	High	Not Started	WWP River Renovation - 20 years old	Parks	Single Year Project	Option 1: Complete renovation - 20 year old structure in need of replacement due to ground movement and damage, including: coping tile, tile, expansion joints, add hydro stats, plaster, raise booster pump stations to create safer environment for staff to access each station (current stations are sub-surface and in confined area with ground water that leaks into the pump area, causing constant damage to pumps. 4 Pump stations house electrical/mechanical parts.) $2,650,000 Option 1 estimate. Option 2: Build 4 new booster pump stations for river. (Current stations are sub-surface and in confined area with ground water that leaks into the pump area, causing constant damage to pumps. 4 Pump stations house electrical/mechanical parts.) $500,000 Option 2 estimate	Unfunded Bonds	Yes	2.2.5	No
CIP	Yellow	Medium	On Hold	WWP Slide Tower, 4 new slides - Master Plan - White Water	Parks	Single Year Project	Current structure is 20 years old. Fiberglass slides have been repainted in 2021/2022, however materials break down over time and slide structure has reached the end of its life cycle. Funding for new structure is needed that will include new slides for single and multi-riders, as well as shade structure on upper decks for guest and staff comfort/safety. Included in the Master Plan for Water Park Upgrades.	Unfunded Bonds	Yes	2.2.5	No
CIP	Blue	Completed	Completed	WWP Wave Pool & Concession Stand	Parks	Single Year Project	Aquatics improvements	Funded	Yes	2.2.5	No

Appendix D: Civic Center Pool

FACILITY CONDITION ASSESSMENT

prepared for

City of Denton
215 East McKinney Street
Denton, Texas 76201
Christa Christian

Civic Center Pool Building
321 East McKinney Street
Denton, Texas 76201

PREPARED BY:
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Appendix E: Water Works Park

Draft - For Discussion Purposes Only

FACILITY CONDITION ASSESSMENT

prepared for

City of Denton
215 East McKinney Street
Denton, Texas 76201
Christa Christian

Tidal Wave Water Park
2400 Long Road
Denton, Texas 76207

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Appendix F: The Natatorium

FACILITY CONDITION ASSESSMENT

prepared for

City of Denton
215 East McKinney Street
Denton, Texas 76201
Christa Christian

Natatorium
2400 Long Road
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SUMMARY

Summary

Reference Number	Location	Objective or Action	Priority	Partners	Parks, Recreation and Trails System Master Plan Ref. Number	Facility Condition Assessment Report (2022)	ADA Transition Plan (2021)	Notes
OBJECTIVE 1: REINVEST IN CURRENT FACILITIES								
DENTON I.S.D. NATATORIUM								
1.1.1	Natatorium	Renovate the existing competition pool and leisure pool's mechanical, electrical, and sanitation system to upgrade components and extend life of facility	High	City of Denton, DISD				
1.1.2	Natatorium	Replace the existing dehumidification system to support better air quality	High	City of Denton, DISD	Pg. 94, 186 (Ref. No. 2.2.6)			
1.1.3	Natatorium	Evaluate building structure to address cracking and identify funding plan for renovation of that area in future CIP	High	City of Denton, DISD	Pg. 94, 186 (Ref. No. 2.2.6)	Document #: 154469.22R000-034.354, pg. 4-5, 7, 38, 43		
1.1.4	Natatorium	Plan for future renovation of site to address upgrades to: building plumbing/electrical components, competition pool, Leisure Pool, slide, storage areas, locker rooms, and expand support spaces for staff	High	City of Denton, DISD, UNT, TWU	Pg. 93, 94, 186 (Ref. No. 2.2.6)			
1.1.5	Natatorium	Replace Fire Alarm panel for building	High	City of Denton		Document #: 154469.22R000-034.354, pg. 8, 41		
1.1.6	Natatorium	Test and update breaker panels/electrical components	High	City of Denton		Document #: 154469.22R000-034.354, pg. 30		
1.1.7	Natatorium	Plan for future renovation of site and/or upgrade of features to comply with ADA Transition Plan: Site Accessibility Evaluation https://www.cityofdenton.com/874/ADA-Transition-Plan	High	City of Denton, DISD	Pg. 93, 94, 183, (Ref. No. 1.3.3), 196 (High Priority Action Item 1.3.3)		Appendix E: pgs. 3751-3914	
WATER WORKS PARK								
1.2.1	Water Works Park	Renovate and upgrade existing slide tower and pump house to extend the life of the structure and add shade at the tower platforms	Medium	City of Denton	Pg. 97, 98, 186 (Ref. No. 2.2.5)			
1.2.2	Water Works Park	Renovate lazy river to address foundation movement, cracking, mismatched tiles and expansion joint separation (See: Phase III, pg.57, 59)	Medium	City of Denton	Pg. 97, 98, 186 (Ref. No. 2.2.5)			
1.2.3	Water Works Park	Replace existing children's pool with programmable and multi-functional flat water	High	City of Denton	Pg. 185, (Ref. No. 2.1.4)			
1.2.4	Water Works Park	Add a large multi-structure play unit that can be an attraction for more families/ages	High	City of Denton	Pg. 97, 98, 185 (Ref. No. 2.1.4)			
1.2.5	Water Works Park	Add more rentable shade structures to increase guest comfortability and increase per cap opportunities	High	City of Denton	Pg. 97, 98, 185 (Ref. No. 2.1.4)			
1.2.6	Water Works Park	Renovate existing Admissions and Bath house with new building that includes adequate spaces for staff break room, first aid office, family changing rooms, secured cash handling room, and enclosed gift shop	High	City of Denton	Pg. 97, 98, 186 (Ref. No. 2.2.5)			
1.2.7	Water Works Park	Invest in new branding of WWP to include: theming, updated logos, utilizing digital assets for marketing, update website, and all promotion materials	Medium	City of Denton	Pg. 98, 186 (Ref. No. 2.2.5)			
1.2.8	Water Works Park	Add a permanent digital screen/structure to facility for events, advertisements, promotions, sales, and aiding per cap increases	Medium	City of Denton	Pg. 98, 185 (Ref. No. 2.1.4)			
1.2.9	Water Works Park	Update POS system to allow for efficient operations with concession, mobile ordering, inventory tracking, and user tracking	High	City of Denton	Pg. 97, 186 (Ref. No. 2.2.5)			
1.2.10	Water Works Park	Add digital screens for advertising located at party areas, inside cabanas, and at Admissions gate	Medium	City of Denton	pg. 97			
1.2.11	Water Works Park	Absorb Skate Works property and construct a utility building that can house vehicles, large equipment, tools, and seasonal furniture storage	Medium	City of Denton	Pg. 97, 98, 186 (Ref. No. 2.2.5)			

1.2.12	Water Works Park	Design and construct Phase II (North East portion of property; contains existing slide tower, volleyball court, and large pavilion) of WWP improvements. Continuous phased-approach in planning and upgrades will extend the life of the park and allow it to grow with users, trends, and CIP/CMP needs. *Goal for completion should be within 10 years of adoption of this master plan.*	Medium	City of Denton	Pg. 185 (Ref. No. 2.1.4), 186 (Ref. No. 2.2.5)			
1.2.13	Water Works Park	Design and construct Phase III (South portion of property; contains lazy river, island and wave pool) of WWP improvements. Continuous phased-approach in planning and upgrades will extend the life of the park and allow it to grow with users, trends, and CIP/CMP needs. *Goal for completion should be within 10 years of adoption of this master plan.*	Medium	City of Denton	Pg. 185 (Ref. No. 2.1.4), 186 (Ref. No. 2.2.5)			
1.2.14	Water Works Park	Renovate existing pump house to extend life of the structure, upgrade mechanical/chemical/electrical equipment, and to add fire suppression components that are not currently a part of the building	High	City of Denton	Pg. 97, 98, 186 (Ref. No. 2.2.5)	Document #: 154469.22R000.068.354, pg. 2		
1.2.15	Water Works Park	Renovate existing wave pool pump house to extend life of the structure, install additional exhaust fan and to add fire suppression components that are not currently a part of the building	High	City of Denton		Document #: 154469.22R000.068.354, pg. 2, 6, 31		
1.2.16	Water Works Park	Re-slope concrete pathway to the north of existing main pump house to direct storm water away from building and prevent future damage	Medium	City of Denton		Document #: 154469.22R000.068.354, pg. 2, 5, 31		
		CIVIC CENTER POOL						
1.3.1	Civic Center Pool	Create a financial threshold plan for capital improvements. The threshold for reinvestment dollars should be based on bid limits for repair services, the demand on personnel for repair and maintenance and amount of money allocated in the City's annual CIP budget.	Medium	City of Denton	Pg. 99, 100, 186 (Ref. No. 2.2.7)			
1.3.2	Civic Center Pool	Work with "Downtown Master Plan" committee to assess future needs of Quakertown Park. Develop a plan to either continue the facility "as-is", renovate, or take facility offline based on the "Downtown Master Plan."	Medium	City of Denton	Pg. 188 (ref. No. 3.1.1)		Appendix E: pgs. 1216-1373	
1.3.3	Civic Center Pool	Repair or replace roll top doors in Admissions/Guard Room	Medium	City of Denton		Document #: 154469.22R00-004.345, pg. 5, 31		
1.3.4	Civic Center Pool	Option: renovate electrical services that are outdated, undersized and problematic	Medium	City of Denton		Document #: 154469.22R00-004.345, pg. 31		
		CARL YOUNG, SR. SPRAYGROUND						
1.4.1	Carl Young Sr. Sprayground	Complete construction of Phase II additions that will increase the overall capacity	Medium	City of Denton	Pg. 186 (Ref. No. 2.2.8)			
1.4.2	Carl Young Sr. Sprayground	Create a technology standard for all splash parks (current and future-planned)	Low	City of Denton				
1.4.3	Carl Young Sr. Sprayground	Create a separate operating budget for the maintenance and continued upkeep of spraygrounds. These should be separated from individual facility budgets and budgets with financial partnerships.	High	City of Denton	Pg. 99, 186 (Ref. No. 2.2.8)			
		COMBINED FACILITY NEEDS						
1.5.1	Natatorium/Water Works Park/Civic Center Pool/Carl Young Sr. Sprayground	Ensure stable funding sources to maintain park infrastructure such as irrigation, parking lots, fencing, restrooms, concessions, facilities, etc.	High	City of Denton, DISD	Pg. 185 (Ref. No. 2.1.7)			
1.5.2	Natatorium/Water Works Park/Civic Center Pool/Carl Young Sr. Sprayground	Create and monitor CMP/CIP guidelines and establish annual funding to support CMP needs for preventative maintenance, ADA compliance, technology upgrades, lifecycle replacement on equipment, signage and facility enhancements	High	City of Denton, DISD	Pg. 94, 95, 186 (Ref. No. 2.2.5, 2.2.6, 2.2.7 and 2.2.8)			

1.5.3	Natatorium/Water Works Park/Civic Center Pool/Carl Young Sr. Sprayground	Create facility safety plan to include cameras and monitoring systems throughout facilities and parking areas to improve safety	High	City of Denton, DISD	Pg. 94, 98, 99, 187 (Ref. No. 2.3.2)			
1.5.4	Natatorium Water Works Park/Civic Center Pool/Carl Young Sr. Sprayground	Select an asset management software to track equipment, inventory, and staff allocation to improve budget, planning, and project management	Medium	City of Denton	Pg. 187 (Ref. No. 2.4.5)			
1.5.5	Natatorium/Water Works Park/Civic Center Pool	Upgrade and renovate aquatic restrooms and bathhouse facilities	Medium	City of Denton, DISD	Pg. 73, 74, 186 (Ref. No. 2.2.5, 2.2.6, and 2.2.7)			
1.5.6	Natatorium/Water Works Park/Civic Center Pool	Create a Landscape Plan that takes into consideration foot traffic, shade, natural elements, synthetic turf options, color, texture, and design for AA Standard parkland. *Updates to plan should be evaluated every 2 years*	Medium	City of Denton, DISD				
1.5.7	Water Works Park/Civic Center Pool/Carl Young Sr. Sprayground	Increase the amount of shaded areas within aquatics system with varying elements that could include awnings, shade sails over elements, pavilions, and covered eating areas	Medium	City of Denton, DISD	Pg. 74			
1.5.8	Water Works Park/Natatorium, Civic Center Pool	Expand programs and services in the areas of greatest demand and need	Medium	City of Denton	Pg. 188 (Ref. No. 3.2.2)			
1.5.9	Water Works Park/Natatorium/Civic Center Pool	Update and replace sound system at CCP, Nat and WWP for purposes of safety notifications, swim meets, water polo meets, and marketing and entertainment opportunities	High	City of Denton, DISD	Pg. 98, 187 (Ref. No. 2.4.3)			
1.5.10	Water Works Park/Natatorium	Replace entrance signage for WWP/Nat with a larger digital marquee that aligns with the expansion of FM 428 on the Mobility Plan	Low	City of Denton, DISD	Pg. 187 (Ref. No. 2.3.1)			
Reference Number	**Location**	**Objective or Action**	**Priority**	**Partners**	**Parks, Recreation and Trails System Master Plan Ref. Number**	**Facility Condition Assessment Report (2022)**	**ADA Transition Plan (2022)**	
OBJECTIVE 2: DEVELOP NEW AMENITIES/FACILITIES								
FUTURE NATATORIUM EXPANSION AT 2400 LONG RD.								
2.1.1	Natatorium	Design and construct new 50-M competition facility with diving components, dedicated locker room facilities for swim team use, coaches offices, lobby, and staff office spaces	Medium	City of Denton, UNT, DISD, TWU	Pg. 183 (Ref. No. 1.3.1)			
2.1.2	Natatorium	Option: add platform diving component and dryland support spaces, and underwater technology to support sports such as artistic swimming needs	Medium	City of Denton, UNT, TWU	Pg. 185 (Ref. No. 2.1.4)			
2.1.3	Natatorium	Option: add weight room component to increase team usability of facility	Medium	City of Denton, UNT, DISD, TWU	Pg. 185 (Ref. No. 2.1.4)			
2.1.4	Natatorium/Long Rd. Recreation Center	Plan for future expansion of site to add approximately 60,000 SF multi-generational recreation center	Low	City of Denton, DISD	Pg. 94, 183 (Ref. No. 1.3.1), 185 (Ref. No. 2.2.6)			
FUTURE SOUTHSIDE AQUATICS CENTER								
3.1.1	EX: Southwest Park	Design and construct a new aquatic center that consists of year-round recreation elements as well as outdoor elements.	Medium	City of Denton, UNT, TWU, DISD	Pg. 183 (Ref. No. 1.3.1)			
3.1.2	EX: Southwest Park	Option: expand indoor aquatics to include a 50-M lap pool with dedicated locker room facilities for swim team use, coaches offices, and dryland support spaces	Medium	City of Denton, UNT, TWU, DISD	Pg. 189 (Ref. No. 3.3.2, 3.3.3)			
3.1.3	EX: Southwest Park	Option: add platform diving component and dryland support spaces, and underwater technology to support sports such as artistic swimming needs	Medium	City of Denton, UNT, TWU, DISD	Pg. 189 (Ref. No. 3.3.2, 3.3.3)			
3.1.4	EX: Southwest Park	Option: Create the indoor/outdoor space with an "Open Air" system (ex: Epic Waters, The Cove in Little Elm, etc.)	Medium	City of Denton, UNT, TWU, DISD	Pg. 185 (Ref. No. 2.1.4)			

3.1.5	EX: Southwest Park	Option: add recreation components such as weight room, dry fitness areas, child watch, etc. to make it a multi-generational facility	Medium	City of Denton, UNT, TWU, DISD	Pg. 183 (Ref. No. 1.3.1)			
3.1.6	EX: Southwest Park	Design and construct support building for Parks Maintenance staff to house vehicles, gators, equipment, offices and work spaces	Medium	City of Denton				
FUTURE SPRAYGROUND ADDITIONS								
4.1.1	Briercliff Park	Design and construct a neighborhood sprayground at Briercliff Park	Medium	City of Denton	Pgs. 80, 185 (Ref. No. 2.1.3)			
4.1.2	Rayzor Ranch	Design and construct a neighborhood sprayground at Rayzor Ranch	Low	City of Denton	Pgs. 80, 185 (Ref. No. 2.1.3)			
4.1.3	Southwest Park	Design and construct a neighborhood sprayground at Southwest Park	Low	City of Denton	Pgs. 80, 185 (Ref. No. 2.1.3)			
4.1.4	Cole Ranch	Design and construct a neighborhood sprayground at Cole Ranch	Low	City of Denton	Pgs. 80, 185 (Ref. No. 2.1.3)			
FUTURE ACTIVE ADULT CENTER ADDITION								
5.1.1	Active Adult Center	Design and plan for future aquatic expansion and spaces during initial development stages of a new Active Adult Center	Medium	City of Denton	Pg.91 (Ref. No. 1.3.1)			
5.1.2	Active Adult Center	Construct new addition of aquatic elements onto Active Adult Center	Medium	City of Denton	Pg.91 (Ref. No. 1.3.1)			