Memorandum

TO: Dr. Tom Leonard, Superintendent

FROM: Jeremy Trimble

DATE: January 8, 2020

SUBJECT: Proposed Aquatics Facility Operational Costs Analysis

As part of the design and analysis process for the proposed new aquatics facility is the development of a facility specific operational study produced by the contracted Aquatics Consultant, Counsilman-Hunsaker. This study was developed with input from all focus group team members. Which includes an arrangement of coaches, community members, district personnel, and consultants.

This study provides the district with facility specific revenue and expenses information regarding management and staffing. The business plan is meant to provide the District the information needed to make a knowledgeable decision about how best to proceed with the operation of the aquatic center.

The following is an example of what was researched and analyzed:

- Operational data for the indoor aquatic center including attendance projections and trends, admission and pricing structure, aquatic program offerings, projected number of hosted competitive events, projected revenue, operating expenses, net operating income and net income after capital costs.
- Proposed marketing strategies, pricing policies and sponsorship efforts.
- Analysis of market demographics including population levels and trends, incomes, and age distribution.
- A review of local school year schedules.
- A review of competing indoor aquatic facilities in the Central Texas area.
- Projections of design level attendance figures and required capacity requirements.
- Projections of facility operational expenses including, personnel, chemical demand, operating supplies, maintenance and repair, utility demand, marketing, food and beverage and retail.
- Projections of overall financial performance for the indoor aquatic center. Looking at separate aquatic center operational models.

Taken directly from the study's executive summary:

- The study presented various operational models for the District's consideration that have ranges of annual expenses from $371,000 to $733,000 (Appendix A), and an overall revenue range of $0 to $441,000 dependent upon the operational models detailed below.
    - **Option 1:** School District use only (competitive teams, curriculum courses)
    - **Option 2:** School District use + renting the facility to area aquatic user groups
    - **Option 3:** School District use + School District owns and operates all club programs
        - USA Swim Team
        - Swim Lessons
        - Masters Swimming

- **Option 4:** School District use + hiring a private operator – Net costs dependent on final agreement with operator. This option would require the district to solicit services through the Request For Offer (RFO) procurement method.

***Through the study process, the consensus from the district focus group gravitated towards Option 2 or Option 4.

- The hourly cost to operate each lane of the pool during operational hours is $5.91. If the District wants to generate revenue to cover expenses for the non-rentable time (Currently District Use and Community Swim times), the District would need to charge a minimum of $16.12 per lane hour.
- USA Swimming states the national average for rental rates per lane per hour is approximately $14, while the projected cost to operate the WHS aquatic center is $16.12 per lane hour. Based upon the local market, cost of operations, length of rental contract and the number of lanes, the District could look at a tiered pricing strategy for short-term (daily/monthly), mid-term (1 month to 6months) and long-term lane rentals depending upon their cost recovery goals. This variation could range from $14 to $24 per lane hour.
- When solidifying a long-term rental contract with a local USA Swim Club, it's important for the District to ensure it has priority for practices, curriculum classes and competitive events. These types of activities will decrease the number of overall hours available for rental and revenue generation.
- Based upon input from District leadership, elected officials, athletics and aquatic center user groups, philosophical differences could arise about how the facility should be operated and to whom it should be made available. Specific goals for usage, cost recovery and availability should be discussed and prioritized.
- Currently, the analysis has accounted for two lifeguards for 11 ½ hours per day ($9.50 base rate/$11.40 w/overhead allowance) for 360 days of operation. Depending on the number of users at one time, facility sight-lines and how the District foresees lifeguard operations, this preliminary budget number could change.
- Depending upon the total number of lanes, hours rented and the rate charge the *maximized* cost recovery could range from 75% to 122% with annual cash flow ranging from -$119,855 to $108,422. If the maximum number of lanes are rented for 275 days per year, the overall cost recovery would be 93%.
- Ancillary revenue streams including swim camps and hosting competitive events are not included within the initial projections. These programs would increase the preliminary expense budget but would also increase revenue. Typically, these types of programs are meant to operate at a minimum break-even, if not a 25% to 50% profit margin.

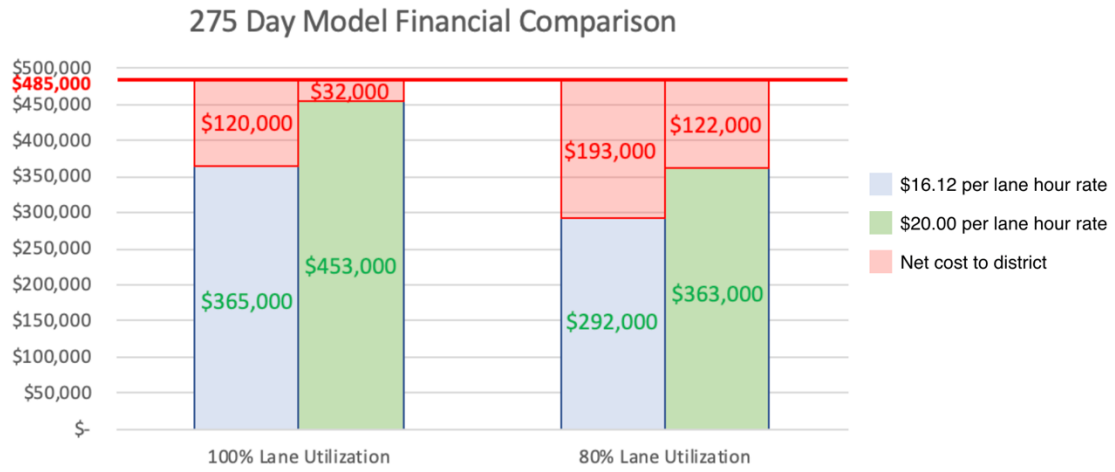
Next Steps/Options:

◊ **Option 2:** According to Counsilman-Hunsaker, the 275-day scenario is a reasonable goal in the early stages of implementation if the District was to operate the facility and rent to separate user groups. This calendar accounts for Monday through Saturday but allows for a certain number of days off for the competitive teams due to swim meets and the typical annual break for the month of August between the end of long-course season and start of short-course season. Even with this scenario there is a range of potential revenue. Conservatively, it would be recommended that the district utilize the $16.12 per lane hour rate. Additionally, in the early stages of implementation an assumption that all lanes may not be rented for all 5-1/2 hours per day for the entire 275-day calendar, a lane utilization of 80% would equate to approximately $292,000 in annual revenue generation.

One thing that is known with the District Operated option is the estimated annual operating expenses of $485,000. With a conservative revenue figure of $292,000 leaves a net operational cost to the district of $193,000 annually. Please note that if the lane utilization rate was to reach 100%, the annual revenue would increase to approximately $365,000 *(Net operational cost of $120,000 annually)*. There is confidence, both from the Aquatics Consultant and the project Focus Group that this would be

obtainable. Furthermore, based upon the local market, cost of operations, length of rental contract and the number of lanes, the District could look at a tiered pricing strategy for short-term (daily/monthly), mid-term (1 month to 6 months) and long-term lane rentals depending upon the district's cost recovery goals. This variation could range from $14 to $24 per lane hour equating to a $20 average rate. This rate structure could lead to an annual revenue of $453,000 if 100% of the lanes were utilized during the 275-day calendar.

The chart below shows a quick summary of Option 2 net costs to the district:



◊ **Option 4:** With the information presented within the study, the District Administration recommends advertising operational services through the Request for Offer (RFO) Procurement Method as the next step in the overall process. Once responses were to be evaluated a recommendation to the Board would be made. The intent would be that operations cost to the district would be covered. Counsilman-Hunsaker recommends utilizing the Option 1 operating cost figure of $371,000 to establish a baseline for proportionate costs by an awarded entity. Timing is important in this process to keep the proposed construction on a June 2020 Construction start due to long lead time components.

**These figures do not reflect the current annual rental rate of $35,000 for the use of the Rollingwood outdoor pool facility. Additionally, as identified during the formation of the 2019 Bond, with any new building there are annual maintenance and operating costs that are required (Custodial, Building Maintenance, Utilities, Grounds, etc). According to Eanes ISD benchmark data of all current district facilities, this figure averages out to approximately $4.19 per square foot. The current design is roughly 23,000 square feet, equating to $96,000 in standard facility operating costs, not taking into account special systems required for a pool facility. While due to some of the district's facility's composition do lead to some facility rental revenue, this is not a general assumption of all facilities.

A reminder of the 2019 Bond Resolution Language: *If voters approve the proposition to fund and construct an Aquatics Center, the District shall explore options for reducing or eliminating maintenance and operating expenses to be borne by the District, including but not limited to, public-private partnerships and/or pool management services. Debt for construction of an Aquatics Center shall not be issued until the Board of Trustees has confidence that any impact on the District's Maintenance and Operations budget would be significantly mitigated or eliminated through such operating arrangements.*

In addition to any Operational Plan, the cost to construct the facilities and proper municipal approvals are milestones on the path to project implementation.

This MEMO serves as an introduction to the full Operational Study included, starting on page 4.

Please contact me with any questions.

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Aquatic Center Study

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Counsilman · Hunsaker

AQUATICS FOR LIFE

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Executive Summary

Stantec Architecture retained Counsilman-Hunsaker for the purposes of developing a business plan for the new aquatic center at Westlake High School. The business plan is meant to provide the District the information they need to make a knowledgeable decision about how best to proceed with the operation of the aquatic center.

- The study presented various operational models for the District's consideration that have ranges of expenses from $371,975 to $733,302, and an overall revenue range of $0 to $441,699 dependent upon the operational models detailed below.
    - Option 1: School District use only (competitive teams, curriculum courses) - $371,975 net cost to District
    - Option 2: School District use + renting the facility to area aquatic user groups - $119,855 net cost to District
    - Option 3: School District use + School District owned and operated programs - $291,604 net costs to District
        - USA Swim Team
        - Swim Lessons
        - Masters Swimming
    - Option 4: School District use + hiring a private operator – Net costs dependent on final agreement with operator
- Through the study process, the consensus from District personnel gravitated towards Option 2 or a private operator partnership: School District use + renting the facility to area aquatic user groups. The information in this report reflects that operational model.
- The hourly cost to operate each lane of the pool during operational hours is $5.91. If the District wants to generate revenue to cover expenses for the non-rentable time, the District would need to charge a minimum of $16.12 per lane hour.
- USA Swimming states the national average for rental rates per lane per hour is approximately $14, while the projected cost to operate the WHS aquatic center is $16.12 per lane hour. Based upon the local market, cost of operations, length of rental contract and the number of lanes, the District could look at a tiered pricing strategy for short-term (daily/monthly), mid-term (1 month to 6 months) and long-term lane rentals depending upon their cost recovery goals. This variation could range from $14 to $24 per lane hour.
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- Based upon input from District leadership, elected officials, athletics and aquatic center user groups, philosophical differences could arise about how the facility should be operated and to whom it should be made available. Specific goals for usage, cost recovery and availability should be discussed and prioritized.
- Currently, the analysis has accounted for two lifeguards for 11 ½ hours per day ($9.50 base rate/$11.40w/overhead allowance) for 360 days of operation. Depending on the number of users at one time, facility sightlines and how the District foresees lifeguard operations, this preliminary budget number could change.
- Depending upon the total number of lanes hours rented and the rate charge, the maximized cost recovery could range from 75% to 122% with annual cashflow ranging from -$119,855 to $108,422. If the maximum number of lanes are rented for 275 days per year, the overall cost recovery would be 93%.

- Ancillary revenue streams including swim camps, hosting competitive events, are not included within the initial projections. These programs would increase the preliminary expense budget but would also increase revenue. Typically, these types of programs are meant to operate at a minimum break-even, if not a 25% to 50% profit margin.

Project Overview

- Provide a guide for the sustainable operations of the pool
- Provide recommendations on the following that will demonstrate the feasibility of the pool beyond district use
    - Staffing model
    - Fees
    - Revenue-generating programming opportunities
    - Program considerations
    - Learn to swim classes
    - Competitive swimming / diving
    - Instructional programs such as lifeguarding courses and kayak roll clinics
    - Recreational swimming
    - Lap swimming
    - Exercise and aerobic classes
    - Events rentals
- Develop a plan that the District has the personnel, desire and ability to implement through this collaborative process

Kickoff Meeting Notes

- The School District community input favored competitive swimming for the aquatic center so that should be a primary focus when discussing programming options.

- The aquatic center should be more programmed-based compared to open community access, although scheduled community swim time should be allocated. Details and pricing are to be determined.

- The School District is interested in studying the financial implications of a District-owned USA Swim Club.

- The lack of a secondary, shallow, warm-water pool will limit the types of non-competitive swimming opportunities for the broader community. The proposed design allows for the needs of the District swim programs and revenue generating opportunities related to the competitive swim community.

- The financial and programming implications of natural vs mixed-mode ventilation will be explored through this study.

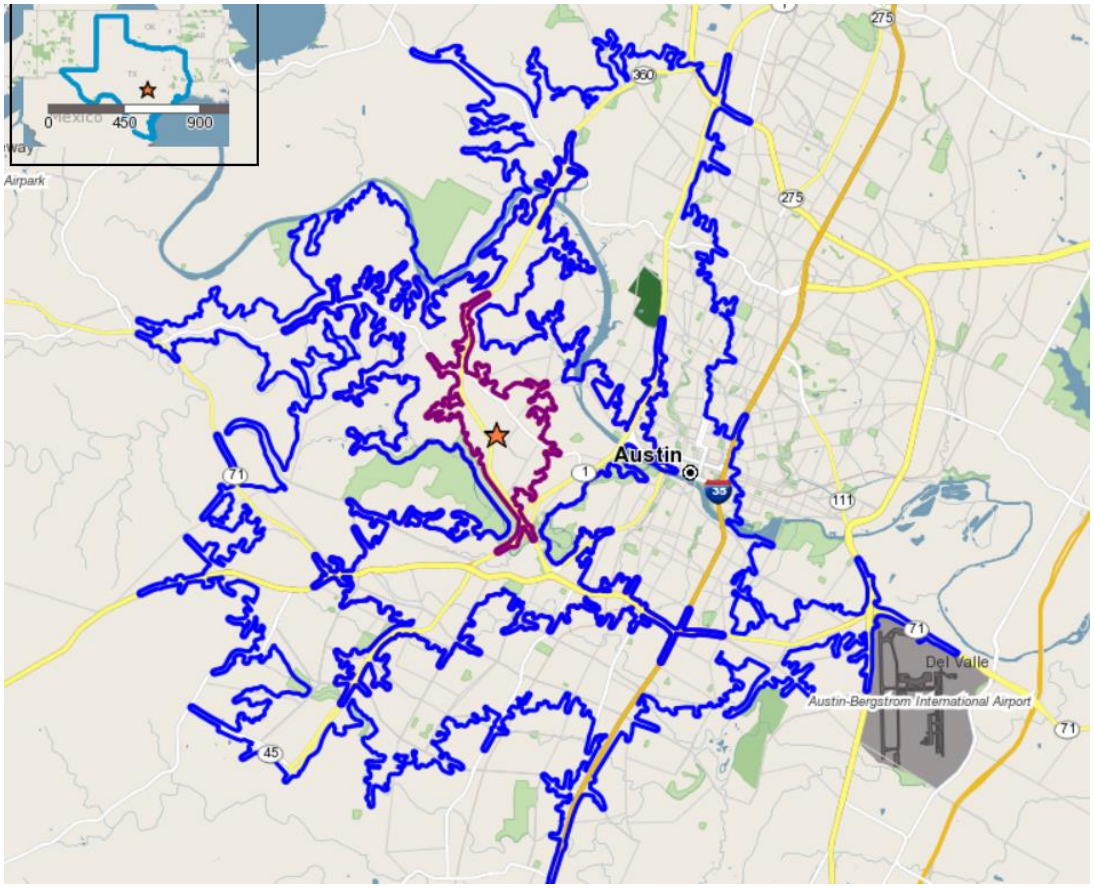
- Possible operational scenarios:
    - School District use
    - School District use + renting the facility to area aquatic user groups
    - School District use + School District owned and operated programs (USA Swim Team, Swim Lessons, Masters Swimming)
    - Private Operator Partnership

Market Analysis

Austin, Texas

The demographics specific to Austin, Texas have been researched and documented in the following charts. 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. Originating from Westlake High School, the primary area is assumed as a 15-minute drive time. A study of demographic patterns in the area is helpful in projecting usage rates. The map below details the drive time radius' that are specific to Westlake High School in increments of 5, 10 and 15 minutes. The following bullets provide a summary of the demographic information researched.

- Population of 389,000 people within a 15-minute drive of Westlake High School
- Higher than average population of adults 25-44 within 15-minutes
- Household income at 139% to 285% of national average
- Shortage of indoor, competitive water
- High demand for lane space from competitive swim teams (indoor and outdoor)
- Austin has consistently been ranked as a top swim city in the U.S.



Population

The following chart presents a summary of market area population with drive times surrounding Westlake High School. The 2010 U.S. Government Census was used to estimate the population for 2019 and to make projections for 2024.

	Population						Average Annual Change			
	Last Census		Current Year		5-Year Projection		5-Year		Current Year	
Radius	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
	(000's)	of Total	(000's)	of Total	(000's)	of Total	(000's)	Change	(000's)	Change
0 to 5 Minutes	5.0	1.6%	5.3	1.4%	5.4	1.4%	0.1	1.2%	0.0	0.3%
5-10 Minutes	44.7	13.9%	49.1	13.3%	50.2	12.9%	0.9	1.9%	0.2	0.5%
10-15 Minutes	271.1	84.5%	315.5	85.3%	333.4	85.7%	8.9	3.1%	3.6	1.1%
Subtotal	**320.8**	**100.0%**	**369.8**	**100.0%**	**389.0**	**100.0%**	**9.8**	**2.9%**	**3.8**	**1.0%**
Total	320.8	100.0%	369.8	100.0%	389.0	100.0%	9.8	2.9%	3.8	1.0%
Austin, Texas	**791.2**		**927.6**		**983.8**		**27.3**	**3.2%**	**11.2**	**1.2%**

Source: Alteryx

Age

Age distribution is another population characteristic used to determine the type and level of use of any type of program. 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.

MARKET AREA AGE DISTRIBUTION

Age Groups	0 to 5 Minutes		5-10 Minutes		10-15 Minutes		Austin, Texas		U.S. Age
	#	%	#	%	#	%	#	%	Population
Age 0-4	248	4.7%	2,370	4.8%	17,634	5.6%	62,329	6.7%	6.5%
Age 5-9	329	6.2%	2,543	5.2%	16,399	5.2%	55,974	6.0%	6.5%
Age 10-14	420	7.9%	2,606	5.3%	15,174	4.8%	49,999	5.4%	6.6%
Age 15-19	467	8.8%	2,538	5.2%	18,620	5.9%	53,935	5.8%	6.9%
Subtotal	**1,464**	**27.5%**	**10,057**	**20.5%**	**67,827**	**21.5%**	**222,237**	**24.0%**	**26.5%**
Age 20-24	199	3.7%	2,143	4.4%	28,971	9.2%	72,567	7.8%	7.1%
Age 25-29	215	4.0%	5,343	10.9%	35,878	11.4%	110,000	11.9%	6.8%
Age 30-34	201	3.8%	4,977	10.1%	31,685	10.0%	99,231	10.7%	6.6%
Age 35-39	258	4.9%	3,968	8.1%	25,965	8.2%	80,321	8.7%	6.3%
Age 40-44	357	6.7%	3,429	7.0%	22,425	7.1%	66,218	7.1%	6.8%
Age 45-49	442	8.3%	3,225	6.6%	20,280	6.4%	58,294	6.3%	7.1%
Age 50-54	496	9.3%	3,208	6.5%	18,598	5.9%	51,636	5.6%	7.3%
Age 55-59	522	9.8%	3,334	6.8%	18,059	5.7%	48,506	5.2%	6.5%
Age 60-64	464	8.7%	3,106	6.3%	15,551	4.9%	40,547	4.4%	5.7%
Age 65-69	318	6.0%	2,387	4.9%	11,717	3.7%	30,104	3.2%	4.2%
Age 70-74	165	3.1%	1,264	2.6%	6,763	2.1%	17,848	1.9%	3.1%
Age 75-79	108	2.0%	799	1.6%	4,267	1.4%	11,358	1.2%	2.4%
Age 80-84	66	1.2%	692	1.4%	3,223	1.0%	8,423	0.9%	1.9%
Age 85+	42	0.8%	1,144	2.3%	4,247	1.3%	10,266	1.1%	1.9%
TOTAL:	**5,317**	**100.0%**	**49,076**	**100.0%**	**315,456**	**100.0%**	**927,556**	**100.0%**	**100%**
Median Age	44.5		37.4		33.9		32.9		37.0

Source: Alteryx

Income

To a certain degree, the likelihood of residents to engage in aquatics depends on their ability to pay for admission and program fees. In the following chart, the U.S. national average is set at 1.00. Index refers to the percentage higher or lower than the national average.

MARKET AREA INCOME

Radius	Per Capita Incomes		Median Household Incomes	
	Dollars	Index	Dollars	Index
0 to 5 Minutes	$78,733	2.98	$149,703	2.85
5-10 Minutes	$67,182	2.54	$90,964	1.73
10-15 Minutes	$51,450	1.94	$73,041	1.39
Austin, Texas	$40,738	1.54	$65,643	1.25
Total U.S.	$26,464	1.00	$52,599	1.00

Source: Alteryx

Area Provider Analysis

The following facilities are located within the greater Austin area and provide competitive and recreational aquatic experiences for the Austin community.

Austin Aquatics and Sports Academy; 12 minutes, 5.8 miles

YMCA of Austin Southwest Branch; 12 minutes, 6.8 miles

Castle Hills Fitness 360; 13 minutes, 58 miles

Lee and Joe Jamail Texas Swimming Center; 15 minutes, 6.7 miles

Nitro Swimming Bee Cave; 22 minutes, 13.3 miles

TownLake YMCA; 11 minutes, 4.9 miles

North Austin YMCA; 21 minutes,14.2 miles

East Communities YMCA; 23 minutes, 19.5 miles

Hays Communities YMCA; 23 minutes, 17.3 miles

Northwest Family YMCA; 22 minutes, 18.6 miles

Springs Family YMCA; 29 minutes, 21.4 miles

Emler Swim School; 6 minutes, 1.3 miles

Emler Swim School of Austin – Anderson Mill; 23 minutes, 17.5 miles

Barton Springs Municipal Pool; 11 minutes, 3.6 miles

West Enfield Pool; 10 minutes, 4.4 miles

Deep Eddy Municipal Pool; 11 minutes, 3.9 miles

West Austin Neighborhood Pool; 13 minutes, 4.7 miles

Gillis Neighborhood Pool; 14 minutes, 6.9 miles

Murchison Neighborhood Pool; 17 minutes, 9.8 miles

Big Stacy Neighborhood Pool; 17 minutes, 8 miles

Ramsey Neighborhood Pool; 16 minutes, 7.6 miles

Dick Nichols Neighborhood Pool; 16 minutes, 8.8 miles

Dittmar Pool; 22 minutes, 9.7 miles

Dove Springs Pool; 21 minutes, 10.2 miles

Rollingwood Pool; 7 minutes, 2.1 miles

Brentwood Neighborhood Pool; 19 minutes, 10 miles

Beverly S. Sheffield Northwest Municipal Pool; 19 minutes, 10,2 miles

Metz Neighborhood Pool; 24 minutes, 7.5 miles

Mabel Davis Municipal Pool; 13 minutes, 7.8 miles

Walnut Creek Pool; 24 minutes, 17 miles

Parque Zaragoza Neighborhood Pool; 22 minutes, 7.4 miles

Kennemer Pool; 19 minutes, 13.4 miles

Patterson Neighborhood Pool; 24 minutes, 9.3 miles

Montopolis Neighborhood Pool; 19 minutes, 11 miles

Rosewood Pool; 21 minutes, 8 miles

Bartholomew Municipal Pool; 24 minutes, 10.3 miles

Rattan Creek Pool; 24 minutes, 17.4 miles

Garrison Municipal Pool; 15 minutes, 6.2 miles

Canyon Vista Pool; 23 minutes, 13.8 miles

Balcones Pool; 20 minutes, 14.3 miles

Civitan Pool; 21 minutes, 12.5 miles

Dottie Jordan Pool; 27 minutes, 19.9 miles

Givens Pool; 24 minutes, 9.4 miles

Govalle Pool; 22 minutes, 8.5 miles

Martin Pool; 21 minutes, 7.2 miles

Reed Pool; 15 minutes, 4.6 miles

Shipe Pool; 19 minutes, 9 miles

LA Fitness Anderson Lane; 16 minutes, 10.9 miles

LA Fitness Slaughter Lane; 19 minutes, 9.1 miles

LA Fitness S. Lamar; 10 minutes, 4.3 miles

Life Time Fitness Austin North; 26 minutes, 23.2 miles

Life Time Fitness Austin South; 13 minutes, 6.2 miles

Gold's Gym – The Village at Westlake; 6 minutes, 2.3 miles

Lost Creek Country Club; 10 minutes, 3.3 miles

Aquatic Trends

When developing tomorrow's vision for aquatic programming, it is important to understand traditional uses and trends in aquatic programs. Trends evolve in the aquatic industry as swimming expectations evolve. 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.

Contemporary aquatic centers are fully ADA accessible, allowing everyone to benefit from aquatic activities. Compliance with the 2010 Standards for Accessible Design specifically states that all pools larger than 300 linear feet of pool wall perimeter need at least two accessible means of entry, one of which needs to be either a pool lift or a sloped entry. The secondary means of entry can be either a lift or sloped entry, or pool access stairs, transfer system, or transfer wall. Pools with less than 300 linear feet of pool wall perimeter need one accessible means of entry, either a pool lift or sloped entry. Spas need one entry, which can be either a pool lift, transfer system or a transfer wall. As more athletes cross train with water fitness components and more doctors recommend water rehabilitation for injured, overweight diabetic, and aging patients, multi-generational aquatic centers are inclusive of the entire community.

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 Enthusiasts

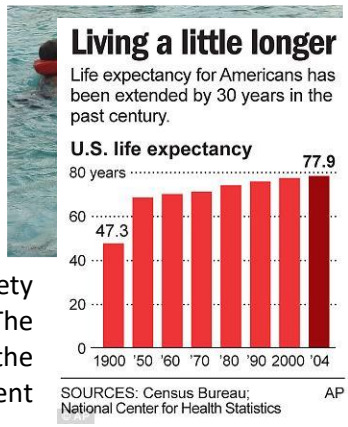
Swim Lessons

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

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 moveable floors or other means of altering water depth for instructional purposes.

A well-run water lesson program is 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.

Entrapments



Aware of 74 cases of body entrapments, including 13 confirmed deaths between January 1990 and August 2004, the U.S. Consumer Product Safety Commission reported the deaths were the result of drowning after the body or limb was held against the drain by the suction of the circulation pump. The incidents occurred in both residential and public settings.[2] Subsequently, a new federal pool and spa safety law was signed by former President George W. Bush on December 19, 2007. The Virginia Graeme Baker Pool and Spa Safety Act requires all public pools and spas to have safety drain covers, and in certain circumstances, an anti-entrapment system.[3] The goal of the law is to improve the safety of all pools and spas by increasing the use of layers of protection and promoting uninterrupted supervision to prevent child entrapments and drownings.

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.

School District Lesson Users

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 also 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.

Aquatic Exercise Trends

AquaBata **Shallow**

Take advantage of the latest trend in fitness to deliver the next level of training to your aquatic programs. High Intensity Interval Training (HIIT), including the specialized Tabata format, transitions into the water with high-powered results. Minimal choreography, maximal results – AquaBata training is the hottest workout in the pool that attracts a younger market, including men! AquaBata….for an Aqua Body!

Aquatic Cardio Programs

Discover the key concepts necessary to create safe, effective and enjoyable shallow water aerobic programs. Creative sequencing, smooth transitions and movement variations will help leaders to develop a unique style of choreography or movement progression. All aquatic professionals can benefit from this hands-on application of the physical properties of water in various cardio class formats.

Aquatic Circuit Applications 2

Circuit training can open your pool to a wide array of training options that are time efficient and fun. Part 2 of this popular workshop offers all new ideas for creative circuit training in shallow water, along with suggestions for deep-water formats. Explore instructor-guided and self-guided methods to provide optimum results for your pool, your participants and your teaching personality. Innovative ideas fuse cardio and resistance training to help participants achieve fitness goals.

Aquatic Interval Applications

Create dynamic interval formats for the pool that can be adjusted for various ages and abilities through Work: Recovery ratios, movement tempos, exercise choices and impact options. This interactive workshop will assist you in developing motivating aquatic interval programs to enhance training results for participants and allow you to lead the workout safely & effectively from the pool deck.

Aquatic Kick Boxing

Explore innovative, safe and effective aquatic Kick Boxing! This program is great for group fitness instructors, small group fitness leaders, trainers and coaches! This interactive non-stop format includes movement modifications and adaptations for the pool. Learn basics and beyond to successfully build techniques into programs for all ages and fitness levels. Explore the benefits of three modalities; stand-alone training, combination programming and multi-sport fitness workout options.

Boot Camp Deep

Take your boot camp to the deep and experience suspended training with a high intensity, non-choreographed workout. Learn how to employ a variety of body positions (vertical, horizontal and diagonal), as well as specific training drills that utilize the pool wall. Command attention in your deep-water classes with challenging formats geared for advanced training. Lower intensity modifications will be discussed.

Boot Camp Shallow

Ten-hut! Push participants past training plateaus with a platoon of shallow water training designed to target fitness components of agility, balance, coordination and speed in addition to cardio capacity. This no-nonsense workout formula delivers high-intensity training options, with and without equipment, to maximize results. Training tactics may not be suitable for beginning exercisers, persons with special needs or those unwilling to get their hair wet.

Core Training + Stretch Techniques

Dive into a pool of core training techniques that include standing, traveling and buoyant options to develop dynamic strength for improved function. Learn options with, and without, equipment to meet a variety of goals and successfully target all skill levels. Flow into a sampler of stretching techniques – static, dynamic and equipment assisted options. From relaxing mind-body options for warm waters to fluid movements for cool pools, learn how to remain flexible in all environments!

Deeper Applications 2

Dive deeper into aquatic programming applications by taking advantage of current trends in fitness. Deeper Applications 2 offers updated information and creative new fitness formats to promote continued progression in your deep-water classes and personal training sessions. Experience suspended high intensity interval training (HIIT) concepts, including the Tabata protocol, which effectively target the cardio system while challenging the core.

H2O Body Sculpting & Resistance Training

Add resistance, through the use of equipment and body positions, to create a shallow-water fitness program that targets muscular strength & endurance, range of motion and balance skills. Learn how to effectively integrate both impacting and grounded techniques to accommodate various fitness levels, as well as different pool considerations, such as water depth and temperature! This high-powered workout explores another level of training with controlled resistance.

Next Level Noodle

Take your aquatic class to the next level with creative cardio, targeted toning, and core concepts…all with the pool noodle. Explore all impact levels (grounded, propulsion & levels I, II, III) and modifications for all ability levels in this fun- focused, total body conditioning class.

PiYoChi Cardio Intervals

A motivating interval format integrates Pilates & Yoga techniques with cardio training to create mind-body programming suitable for cooler water temperatures (83-86 F). Pilates' concepts target the "powerhouse" muscles of the core; Yoga focuses on alignment, awareness and breath control; cardio components burn calories and keep the participant warm. Expand group exercise and personal training options with this functional fusion of training principles for the pool!

Rated M for Mature

This Aquatic Aerobic & Resistance Program (AARP) is fun, targets function, and provides fundamental exercises for the mature market. Baby Boomers and beyond want a training program that meets their needs and interests, while accommodating special concerns, such as fear of falling. Develop purposeful movement to achieve balance, coordination, mental awareness, posture, and range of motion needed for active lifestyles, as well as independent living.

Successful Senior Strategies

Aquatic programming that targets the senior population spells success! From marketing and promotion to music and motivation, every concept of program design, development and implementation must be considered. Explore this creative collection of pool programs that are perfect for the older adult market: Circuits with Class; Interval Integration; Water Walk 101; Strong, Stretched & Senior. Take home four complete programs and ideas for getting started…successfully!

Upper Body, Core & More

Heat up your shallow water classes with an array of upper body and core training applications. Learn how to apply fun, force and function to basic arm patterns building progressions for all goals and abilities. Next, explore how to integrate unilateral and bilateral upper body moves and impact variations for core training benefits. Finally, put it all together with and without equipment for endless combinations.

Aquatic programming accommodates beginner lessons that graduate to higher levels of intensity and skill. The following provides a snapshot of popular aquatic fitness programs.

- ***Finning*****:** This active swimming program requires training fins or flippers and utilizes fitness lap lanes of a pool. The kicking and pulling enhances conditioning and toning.
- ***Scuba and Snorkeling*****:** These lessons are growing in popularity (possibly due to the increase of environmental professions) and typically start in swimming pools.
- ***Scuba Rangers*****:** Scuba and snorkeling skills are taught to kids 8 to 12 while using underwater flashlights, navigation compasses, and underwater photography.
- ***Underwater Hockey*****:** According to USOA Underwater Hockey, "The pool should be 25-meters by 15-meters and two-meters deep all the way across, but anything will do, even slopes (just change

ends at half-time). Lead weights and three meters of rope can be used as goals, though the sound of the puck thunking into the back of a metal goal is very satisfying and should be experienced."

- ***Water Polo:*** Dimensions of a water polo pool are not fixed and can vary between 20 by 10 and 30 by 20 meters. Minimum water depth must be at least six feet. The goals are three meters wide and 90 centimeters high. Water Polo has recently been approved as an UIL sport in the State of Texas.
- ***Kayak Polo:*** This sport involves water polo being played from kayaks. According to Carolina Kayak Polo, "It is difficult to describe the passion and excitement that is created when a kayak water polo game is in progress. The participants—speeding the length of the pool weaving through the opponent's lines of defense and spinning in their kayaks to receive a pass—create a fast and thrilling event."
- ***Water Basketball:*** Ideated in 1986 by Italian teacher, Francesco Rizzuto, this sport is a mixture of basketball and water polo. When designing a pool, full court water basketball is more challenging when tile lines are encrypted into the floor of the pool.
- ***Water Volleyball:*** Portable and floatable aqua water volleyball sets come complete with two net positions, two anchor bags, and a staked floating perimeter boundary.
- ***Triathlons*****:** These athletic competitions, which the contestants compete in three different events to find the best all-around athlete, typically consist of swimming, cycling, and running.
- ***Kayak and Canoe Clubs*****:** Due to the popularity of Extreme Sports, kayak and canoe clubs are growing in popularity and use large pools for training.

Swim lessons, lap swimming, water jogging, deep-water aerobics, lifesaving instruction, diving lessons, survival swimming, synchronized swimming, water polo, underwater hockey, and scuba instruction can take place in a competitive/lesson/training pool, which frees up the recreation pool for swimmers who want to use the play features. Fitness classes are usually offered in the morning, at lunchtime, and in the early evening. Instructor information and/or training can be acquired through organizations such as the Arthritis Foundation; American Red Cross; Aquatic Exercise Association; American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD); and United States Water Fitness.

Aquatic Physical Therapy

Aquatic therapy is rehabilitation performed in warm water and involves physical activity of exercise and motion in the presence of a licensed aquatic physical therapist. Warm water may increase the dynamics of blood pressure and blood and lymph circulation as well as decreasing swelling in skin and other tissues. Participation in an aquatic therapy program offers improvement in:

- Overall health and fitness
- Stretching capacity
- Range of motion
- Movement capabilities
- Coordination
- Physical stamina and endurance
- Swimming skills, safety, and abilities

Though many people who use aquatic therapy are enthusiasts of meditation or massage, some are looking for rehabilitating or improving a certain level of health. The Aquatic Exercise Association certifies instructors to teach Arthritis Foundation Arthritis Programs. Many participants in these programs report reduced arthritis symptoms, including increased mobility and decreased pain and stiffness.[5] New studies by the Aquatic Exercise Association suggest that the management of bone density can be facilitated by water exercise.[6] When moderate exercise is recommended for obese patients, the low-gravity qualities of aquatic therapy can be very appealing to this user group. Over the past several years, water exercise programs have multiplied in health clubs, pain clinics, and hospitals. Users include:

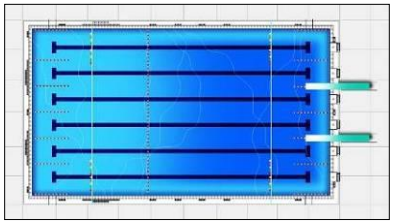
- ***Injured Athletes*:** Athletic trainers and sports medicine physicians are prescribing aquatic therapy as a rehabilitative/preventive fitness program.
- ***Post-Operative Patients and the Disabled*:** Includes patients with physical ramifications such as spinal dysfunctions, post-operative muscle toning, injuries, and arthritis.
- ***Arthritis Sufferers*:** The Arthritis Foundation certifies instructors to teach arthritis exercises such as Rusty Hinges and Joint Effort.
- ***Aging Baby Boomers*:** Some 70 million strong, "boomers" invented the fitness movement and show no sign of abandoning it as they age, especially in warm water pools.
- ***Obese Patients*:** More doctors are prescribing aquatic physical therapy for overweight issues.
- ***Pregnant Women*:** Effects of the low resistance of water exercise is soothing to this user group.
- ***Meditation Enthusiasts*:** Fans of mind and body movements enjoy immersing in warm water pools to complete the tranquil state of meditation.

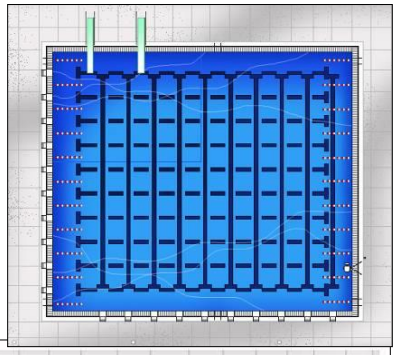
Key Components of Aquatic Therapy Centers

Aquatic physical therapy centers are growing in necessity for rejuvenation and social wellness for rehabilitation needs and developmental disorders. Colorful environments and interactive water is a stimulating, effective, and cathartic treatment, while specific design elements are ultimately inspired by the rehabilitative needs of patients. Key components include:

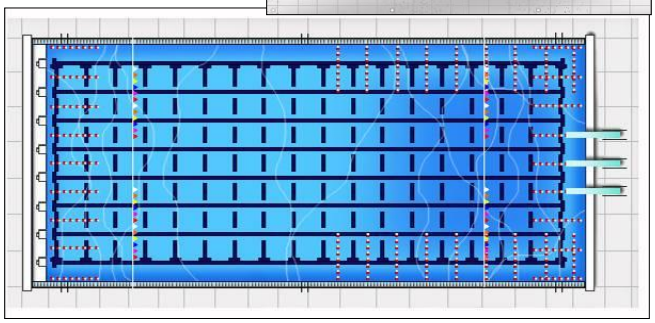
- Warm pool water capability with fast pool turnovers.
- High-quality water chemical treatment systems, including dual sanitization methods and an appropriately designed HVAC/DH system.
- Easy access from the parking lot to the locker rooms, pool deck, and into the pool.
- Ample space in locker rooms and wider pool deck for wheelchairs, walkers, dry and wet equipment, and dry-side therapy.
- In-water amenities such as perimeter railings, aerobic steppers, treadmills, underwater benches, and ramps.
- Flexible pool depths for multiple programmatic needs.
- Aesthetically pleasing and light-filled private spaces.

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.

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

1. USA Swimming
2. National Federation of State High School Associations (NFSHSA)
3. National Collegiate Athletic Association (NCAA)
4. Federation International de Natation Amateur (FINA)
5. USA Water Polo
6. USA Diving
7. USA Synchronized Swimming
8. USA Masters Swimming
9. YMCA

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.

Springboard Diving

- Water depth must be adequate under, in front of, and to the sides of the board. The Y-USA guideline is to provide at least 11 feet of water depth for a one-meter board.
- Texas High Schools currently compete on the 1-meter diving board, with future consideration being made for the inclusion of 3-meter boards.
- A trained coach should be present for practice and competition, in addition to the lifeguards.
- When the diving facilities are in use, a lifeguard should be specifically stationed in that area to manage the activity and to enforce the following rules:
    - Only one diver is allowed on the board at a time.
    - Only one bounce is allowed at the end of the board.
    - Dive or jump directly ahead.
    - Exit immediately at the nearest ladder after each entry.
    - The hands must enter the water first on all headfirst dives.

Racing Dives/Starting Blocks

- Most authorities, Y-USA included, now require five feet of water depth for starting block usage.
- Non-springboard diving instruction, whether teaching competitive dives to new swimmers or teaching new diving techniques to experienced swimmers, should be performed in no less than nine feet of water.
- Starting blocks should be used only with the direct supervision of a trained coach.
- Starting blocks should be clearly marked as closed when not in use. A cone or cover is suggested on each block to keep untrained or unsupervised users off the block.

Open Swim General Rules

- Diving from the pool deck should not be permitted in less than nine feet of water.
- "No Diving" signs as well as depth markers should be placed conspicuously at the water's edge and at other locations in the facility. Lifeguards must strictly enforce this rule.
- Inform new users and outside groups of the diving rules before they enter the water.

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 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 to provide ample seating for dual and tri-meets
- Pace clocks, stretch cords, mats (for sit-ups, etc.), free weights, medicine balls, weight training equipment, kickboards, fins, paddles, pull buoys, and goggles

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 337,084 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. The base for popularity is primarily a young age group that begins around age eight and peaks at age 11 as shown in the chart below.

2015 Year-round Athlete Membership										
Age	New Female	Renew Female	Total Female	% of Total Ath	New Male	Renew Male	Total Male	% of Total Ath	Grand Total	% of Total Ath
8 & Under	11,663	5,760	17,423	5.2%	9,050	4,281	13,331	4.0%	30,754	9.2%
9	7,687	8,052	15,739	4.7%	5,728	5,868	11,596	3.4%	27,335	8.1%
10	7,848	12,336	20,184	6.0%	5,764	8,868	14,632	4.3%	34,816	10.3%
11	4,365	16,147	23,512	7.0%	5,352	11,297	16,649	4.9%	40,161	11.9%
12	5,937	17,857	23,794	7.1%	4,563	12,506	17,069	5.1%	40,863	12.2%
13	4,219	17,778	21,997	6.5%	3,375	11,907	15,282	4.5%	37,279	11.0%
14	2,903	16,274	19,177	5.7%	2,585	11,810	14,395	4.3%	33,572	10.0%
15	1,779	13,535	15,314	4.5%	1,826	10,356	12,182	3.6%	27,496	8.1%
16	1,165	10,761	11,926	3.5%	1,251	8,564	9,815	2.9%	21,741	6.4%
17	709	8,646	9,355	2.8%	924	7,611	8,535	2.5%	17,890	5.3%
18	327	6,174	6,501	1.9%	544	6,218	6,762	2.0%	13,263	3.9%
19 & Over	362	5,029	5,391	1.6%	460	6,063	6,523	1.9%	11,914	3.5%
TOTAL	51,964	138,349	190,313	56.5%	41,422	105,349	146,711	43.4%	337,084	
Source: Counsilman-Hunsaker										

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

1. The Summer Sectional shall be a Long Course meet.

2. 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.

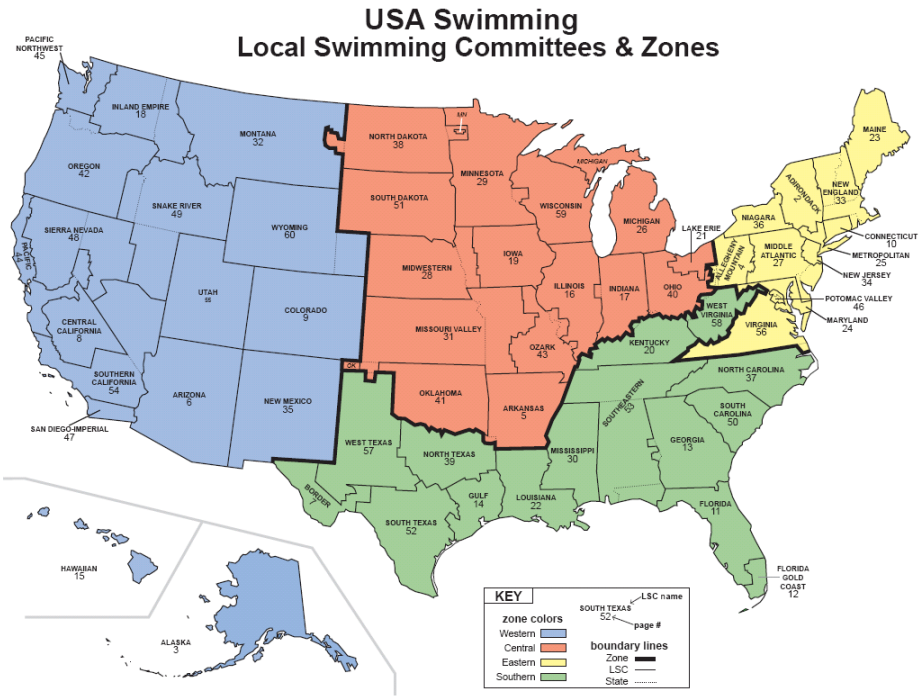
3. The Summer Sectional meet shall have at least one 18-and-under final heat per individual event.

B. Spring Sectional

1. The Spring Sectional meet should be no more than 3 ½ days long. The dates may vary according to the needs of each Zone.

2. The Spring Sectional meet shall have at least one 18-and-under final heat per individual event.

There shall be not more than sixteen (16) Spring and sixteen (16) Summer meets. Sectional Championship dates and sites shall be selected by the Sections and approved by the respective Zone Directors.



South Texas Swimming

- 40+ teams spanning from Temple to Corpus Christi
- Over 8,700 total swimmers
- Average team size: 157 Swimmers
- Fee schedules vary by team
  - Monthly range: $80/month to $330/month
  - Annual dues/team registration fees: +/-$100

ClubName	ClubCode	LSCId
Nitro Swimming	NTRO	ST
Alamo Area Aquatic Association	AAAA	ST
Lost Creek Aquatics	LCA	ST
Austin Swim Club	ASC	ST
Waterloo Swimming	WLOO	ST
Longhorn Aquatics	TXLA	ST
San Antonio Wave	WAVE	ST
Life Time Swim Team - Central Texas	LIFE	ST
Lone Star Aquatic Club	LSAC	ST
Mc Allen Swim Club	MSC	ST
Sailfish	FISH	ST
Streamline Aquatics	SASA	ST
Brownsville Aquatics	BAS	ST
Hays Swim Club	HSC	ST
Laredo Swim Club	CLUB	ST
Aquatex Swim Team	AQTX	ST
Coastal Bend Allstars	CBA	ST
Tigershark Swim Team	TST	ST
Western Hills Athletic Club	WHAC	ST
Corpus Christi Aquatic Alliance	CCAA	ST
Circle C Select Swimming	CCSS	ST
Texas Gold	GOLD	ST
New Braunfels YMCA Metro Marlins	MM	ST
Heart of Texas Aquatics Team	HEAT	ST
Great Hills Aquatics Rush	RUSH	ST
Ft. Hood Area Dolphins	FHD	ST
Westwood Country Club Aquatics	WWW	ST
Capital of Texas Aquatics	COTA	ST
Aqua Swift Aquatics	AQSA	ST
Heart Of Texas Swim Team	HOT	ST
Austin Trinity Aquatic Club	ATAC	ST
Rio Grande Valley Aquatics	RGV	ST
Laredo Nadadores	CLAN	ST
Cedar Park Swimming	CPS	ST
Northwest Austin Makos Swim Club	NAMS	ST
Monster Swimming	MSTR	ST
Paragon Training	PRGN	ST
Winning Waters Aquatics Club	WWAC	ST
Del Rio Diamondbacks	DRD	ST
San Antonio Swim Academy Sharks	SAS	ST
University of Texas	UT	ST
Harlingen Aquatics Team	HAT	ST
Tex's Waves	TWST	ST

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-foot wide lanes	14,000	Eight 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	Four 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-foot wide lanes	Eight-lane, 25-yard pool	1,500	Five days	Early August
Speedo Junior National Championships	1,000	One eight-lane, 50-meter pool; minimum depth of two meters and 9-foot wide lanes	Eight-lane, 25-yard pool	1,500	Five days	Early August
USA Swimming Futures Championships	1,000	One eight-lane, 50-meter pool; minimum depth of two meters and 9-foot 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	Three days	Summer
TYR Pro Swim Series	700	One eight-lane, 50-meter pool; minimum depth of two meters and 9-foot wide lanes	Eight-lane, 25-yard pool	1,500	Series of four-day events held throughout country	
Speedo Sectionals	800	One eight-lane competition pool; 25-yards, 25-meters or 50-meters acceptable	Required	1,000	Series of three- or four-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 three- or four-day events held in each of four zones in the country	

United States Masters Swimming

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.

Eanes ISD Pool Design Narrative

- The short-course stretch competition pool will have overall dimensions of at least 120’-9” in length by 75’-1” in width.
- This is the minimum overall stretch pool length which will allow for 25-yard swimming and simultaneous 3-meter springboard diving with a 6’-0” wide movable bulkhead in the pool.
- If 25-meter swimming is desired with enough clearance for simultaneous 3-meter springboard diving, the pool would need to be “stretched” that additional length accordingly.
- At the 120’-9” pool length, the cross-course 25-yard dimension will allow for up to fifteen (15) lanes of training space at a lane width of 7’-6”.
- The depth profile of the pool is anticipated to be variable with a shallow end providing 4’-0” deep water for instruction and alternative programming while maintaining an “all-deep” 25-yard course for competition swimming between the bulkhead and deep end wall.
- The deep portion of the pool will vary from a water depth of 7’-0” to a maximum depth of 13’-0” in the diving well area. Two (2) 1-meter springboards will be included in the base bid, with the option of including 3-meter springboard diving as an alternative or future program element.
- The pool will be able to accommodate water polo and synchronized swimming.

USA Swimming Club Team Population, Pool Size And Club Size – “Rules of Thumb”

- 50,000 population draw within a 20-minute drive = At least a 6 lane 25-yard pool with access 60 minutes in the early morning and 3 hours access after school hours plus some weekend hours. Club size of 75 to 125.
- 75,000 population draw within a 20-minute drive = At least an 8 lane 25-yard pool with access 90 minutes in the early morning and 3 hours access after school hours plus some weekend hours. Club size of 12-175.
- 100,000 population draw within a 20-minute drive = At least a 10 lane 25-yard pool with access 90 minutes in the early morning and 4 hours access after school hours plus some weekend hours. Club size of 175-250.
- 150,000 or more population draw within a 20-minute drive = A 23 lane 25-yard pool (50 meters long = 23 short course lanes wide) with access 90 minutes in the early morning and 4 hours access after school hours plus some weekend hours. Club size of 250-450.

Preliminary Facility Operating Schedule

The chart below details the expected aquatic center average schedule based on the District's staff input during the programming phase of the project. This includes 6 hours per day for Eanes ISD, 5 ½ hours for pool rentals and 3 ½ hours per day for community-based programs.

	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Lane 6	Lane 7	Lane 8	Lane 9	Lane 10	Lane 11	Lane 12	Lane 13	Lane 14	Lane 15
5:30 AM	Club Practice (22.5 lane hours)														
6:00 AM															
6:30 AM															
7:00 AM	Eanes ISD - Westlake HS V/JV														
7:30 AM															
8:00 AM															
8:30 AM															
9:00 AM	Community Swim														
9:30 AM															
10:00 AM															
10:30 AM	Eanes ISD - Diving / Water Polo														
11:00 AM															
11:30 AM															
12:00 PM															
12:30 PM															
1:00 PM	Community Swim														
1:30 PM															
2:00 PM															
2:30 PM															
3:00 PM	Eanes ISD - Middle School Practice														
3:30 PM															
4:00 PM															
4:30 PM	Club Practice (60 lane hours)														
5:00 PM															
5:30 PM															
6:00 PM															
6:30 PM															
7:00 PM															
7:30 PM															
8:00 PM															
8:30 PM															
9:00 PM															
9:30 PM															
10:00 PM															

Operational Proforma

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 take into account local prevailing utility rates and wage rates.

In order to address those factors that are unique the Eanes Independent School District 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.

Assumptions

- **Personnel costs**
    - Full-time management (Salary - $60,224)
    - Part-time (lifeguards front-desk attendants, management – hourly rate of $9.50)
    - Benefit / overhead percentage of 20%
- **Utility Rates**
    - Water (per 1,000 gallons) - $6.00
    - Electric (per KWH) - $0.09
    - Natural Gas (per therm) - $1.00
- **Other Expenses**
    - Chlorine (per gallon / pound) - $2.00
    - Insurance (property / liability) – Not include
- **Hours of Operation**
    - 11.5 hours of lifeguarded operations per day
    - See schedule chart on page 18
- Costs are in 2019 dollars

Aquatic Facility Staff

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% were calculated for 11.5 operational hours per day.

Opinion of Labor

	Hours Per Day	Cost Per Hour	Rate with Overhead	Days per Season	Total Expense
Job Description	SD+Rentals	SD+Rentals	SD+Rentals	Indoor	SD+Rentals
Summer					
Lifeguard	23	9.50	11.40	100	26,220
Summer Total	23				$26,220
Winter					
Lifeguard	23	9.50	11.40	260	68,172
Winter Total	23				$68,172
Annual Labor Expense					**$94,392**
Total Full Time Equivalents					**3.98**

Insurance

The most economical method of insuring the liability and property of the proposed options is to package the policy with other insured property. For the purpose of this report, it is assumed that the District is self-insured, and no additional insurance costs will be charged to the aquatic center's annual budget.

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.

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.

Electricity

The calculations for electricity and natural gas below are based upon 2019 utility rate information. A figure of $0.09 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.

Operating Expenses

The following table is a summary of all operating expenses for the preferred option in current dollars.

Opinion of Operating Expenses

Direct Facility Expense Budget	
	SD+Rentals
Facility Staff	
Aquatic Director	$60,224
Full Time Benefits	$24,090
Lifeguard Personel	$94,392
Front Desk Personnel	$0
Personnel Equipment Cost	$1,433
Training	$6,000
Total Labor	**$186,139**
Direct Facility Expenses	
Insurance	Not Included
Repair and Maintenance	$25,200
Operating Supplies	$15,120
Chemicals	$39,075
Advertising	$2,000
Total Commodities	**$81,395**
Utilities	
HVAC	$24,573
Electricity	$47,519
Pool Heating	$115,967
Data/Communications	$5,184
Trash Service	$3,120
Water & Sewer	$21,681
Total Utilities	**$218,044**
Programs	
Program Supplies	$0
LG Class Materials	$0
Part-Time Program Staff	$0
Total Programs	**$0**
Total Operating Expenses	**$485,578**

Aquatic Center Cost Per Lane Hour

The goal of the District is to maximize its revenue generation for the aquatic center while not compromising the district-sponsored activities. When developing the aquatic center's expense budget of approximately $485,000 annually, the costs were broken down further to calculate the cost per lane per hour to operate the pool. This takes into consideration personnel, direct expenses and utility costs for the pool. When looking at a 15-hour daily operation, the cost per lane per hour is $5.91. Seeing that the District will not charge itself for lane space and that the goal of the District is to recover as much of the operational budget as possible, the operational cost per lane per hour for rental purposes for the 5.5 hours per day allocated to rentals is $16.12, as seen in the chart below. The community swim time allocated in the schedule is not included in the revenue model as this is still being determined.

USA Swimming states the national average for rental rates per lane per hour is approximately $14, while the projected cost to operate the WHS aquatic center is $16.12 per lane hour. Based upon the local market, cost of operations, length of rental contract and the number of lanes, the District could look at a tiered pricing strategy for short-term (daily/monthly), mid-term (1 month to 6 months) and long-term lane rentals depending upon their cost recovery goals. This variation could range from $14 to $24 per lane hour.

Cost per day	Cost per hour (15 hrs)	Cost per lane hour
$1,330.35	$88.69	$5.91
Cost per day	**Cost per hour (5.5 hrs)**	**Cost per lane hour**
$1,330.35	$241.88	$16.12

Aquatic Center Rental Days Cost Comparison

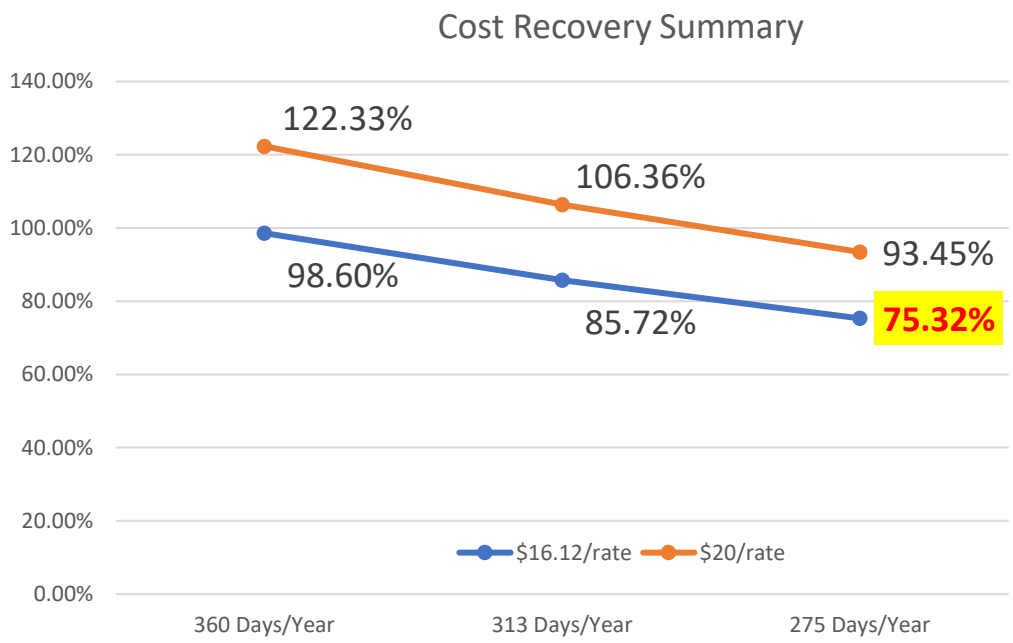
For the District to analyze the various opportunities for rental days, total lane hours per year, and the amount of revenue generated under different operational scenarios, the following chart was developed. The chart details the total number of rental days ranging from 275 to 360, the total number of available lane hours during those days (assuming 5 ½ hours per day; see operating schedule above), two different per lane, per hour rate structures and the range of revenue for each of those rates. Renting out lanes at the aquatic center for 360 days/year would require facility rental operations all but a few days per year and 313 days would consist of renting the pool Monday through Saturday year-round. The revenue for 275 days would account for Monday through Saturday but allow for a certain number of days off for the competitive teams due to swim meets and the typical annual break for the month of August between the end of long-course season and start of short-course season.

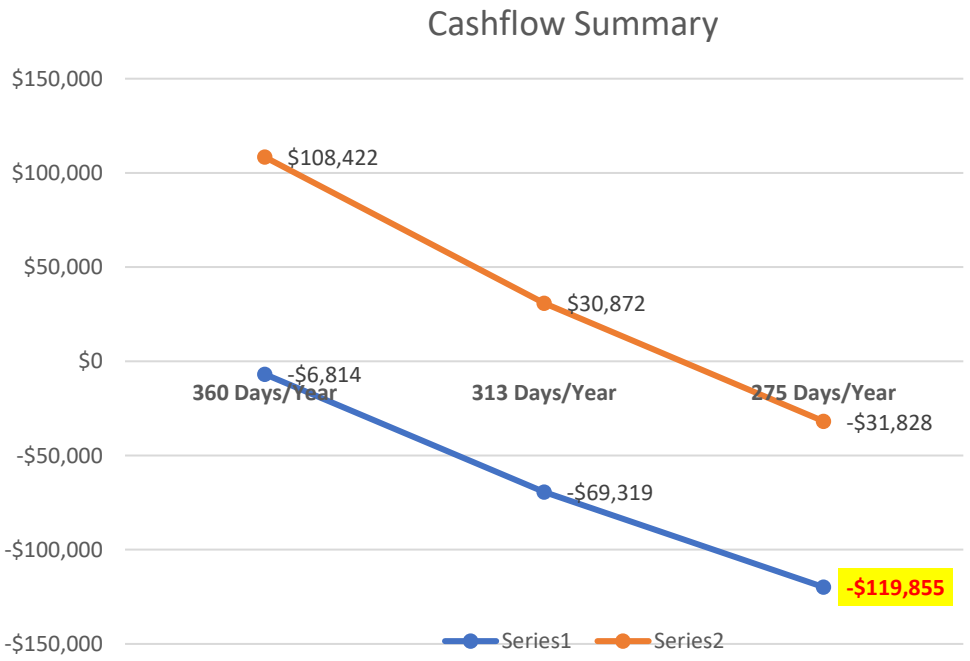
The 275-day scenario is a reasonable goal for the District in the early stages of implementation which yields expenses of $485,578 and revenue of $365,723 for an overall cost recovery of 75%.

360 Days/Year	
Available Lane Hours/Day	82.5
Days/Year	360
Total Lane Hours Per Year	29,700
$20/rate	$594,000
$16.12/rate	$478,764
Mon-Sat Year-Round	
Available Lane Hours/Day	82.5
Days/Year	313
Total Lane Hours Per Year	25,823
$20/rate	$516,450
$16.12/rate	$416,259
275 Days/Year	
Available Lane Hours/Day	82.5
Days/Year	275
Total Lane Hours Per Year	22,688
$20/rate	$453,750
$16.12/rate	$365,723

Aquatic Center Cost Recovery / Cashflow

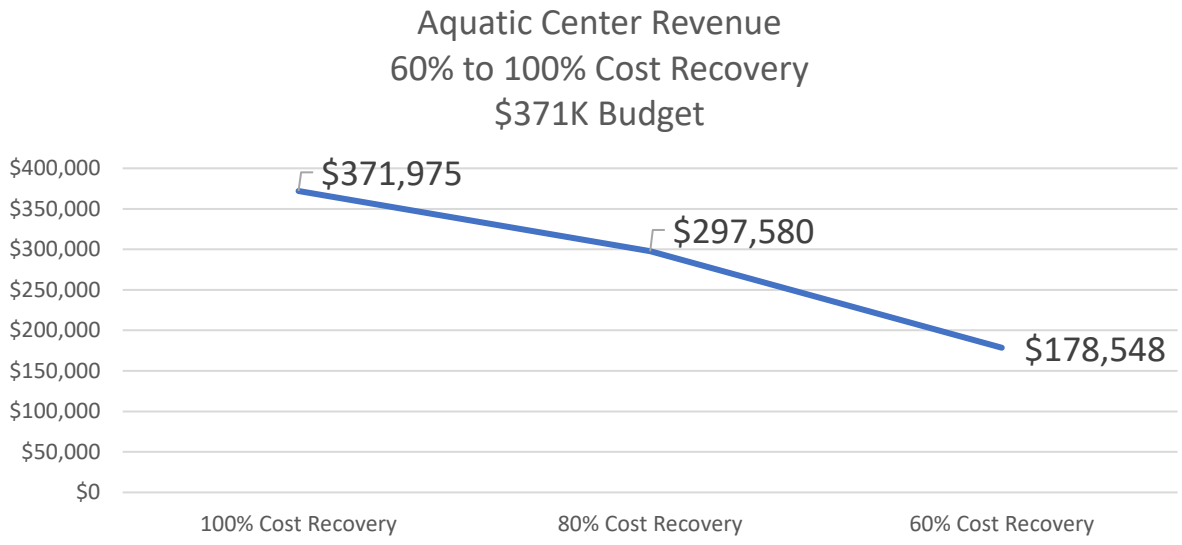
The following graphs represent the scenarios based on the number of rentable days and the variation in cost per lane hour. Depending upon the total number of lanes hours rented and the rate charged, the cost recovery of the $485,578 annually could range from 75% to 122% with overall cashflow ranging from -$119,855 to $108,422. The orange line represents a $20 per lane per hour charge, while the blue line represent a $16.12 per lane per hour charge.

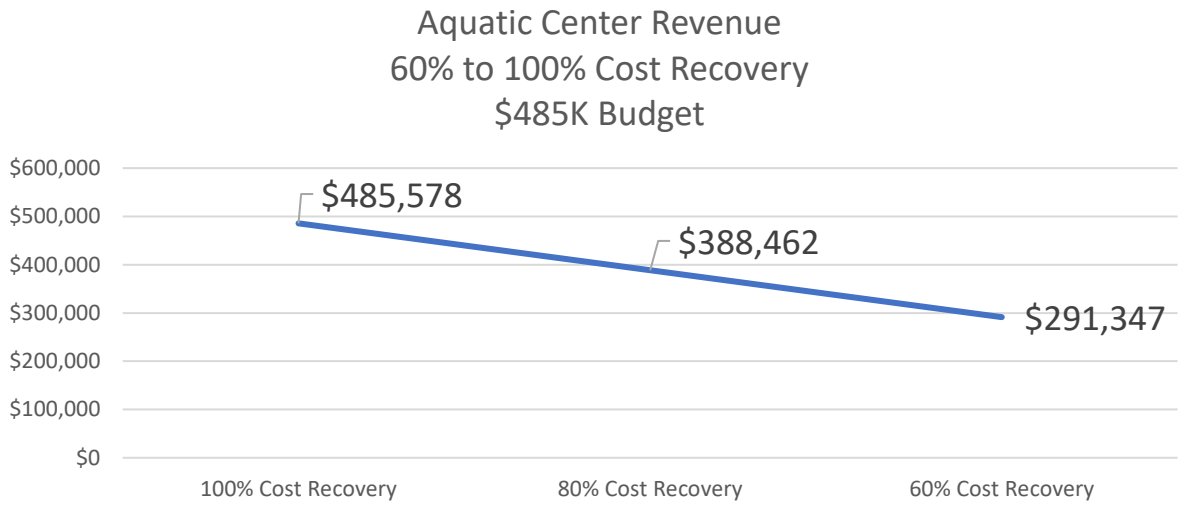




The following graph represents the scenarios based on the revenue generated by percentage of cost recovery, 60%, 80% and 100% for the $371K expense budget and the $485K expense budget. The difference between the expense budgets is the inclusion of a full-time aquatic center manager in the $485K budget.

The amount of revenue needed for the various points of cost recovery ranges from $178,548 to $371,975 for the $371K budget and from $291,347 to $485,578 for the $485K budget.





Summary

The following chart and bullet points describe the various operational scenarios that have been considered by the District, and details the anticipated revenues and expenses associated with each scenario.

School District use

- Least amount of annual expenses
- Zero revenue
- Ease of operation
- Unused capacity

School District use + renting the facility to area aquatic user groups

- District gets priority on lane allocations, practice times, swim meet schedule
- Revenue generation during unused times
- Outside swim teams using facility
- Allows for community access
- 15 lanes + 5 ½ hours/day + 275 days/year, $16.12/lane hour

	2019	2020	2021	2022	2023
SD Use Only					
Project Cost	$10,060,339				
Revenue	$0	$0	$0	$0	$0
Expense	$371,975	$381,274	$390,806	$400,576	$410,590
Operating Cashflow	($371,975)	($381,274)	($390,806)	($400,576)	($410,590)
Recapture Rate	**0%**	**0%**	**0%**	**0%**	**0%**
SD+Rentals					
Project Cost	$10,060,339				
Revenue	$365,723	$365,723	$374,866	$374,866	$384,238
Expense	$485,578	$497,717	$510,160	$522,914	$535,987
Operating Cashflow	($119,855)	($131,994)	($135,294)	($148,048)	($151,749)
Recapture Rate	**75%**	**73%**	**73%**	**72%**	**72%**
SD+Full Operations					
Project Cost	$10,060,339				
Revenue	$441,699	$485,630	$560,771	$588,678	$648,880
Expense	$733,302	$766,285	$813,520	$840,080	$881,363
Operating Cashflow	($291,604)	($280,656)	($252,749)	($251,402)	($232,483)
Recapture Rate	**60%**	**63%**	**69%**	**70%**	**74%**

*revenue assumes fee increase in years 3 and 5

School District use + School District owned and operated programs (USA Swim Team, Swim Lessons, Masters Swimming)

- Pool is a “programmed pool”
- District gets priority on lane allocations, practice times, swim meet schedule
- Revenue generation during unused times
- Allows for community access
- Highest expense budget
- Highest revenue generation

Appendix A: Direct Expense Comparison Chart

For purposes of generating a plan for a private partnership model, Option 1 should be used in order to capture the direct operational costs to the District.

Direct Facility Expense Budget				
		SD Use Only	**SD+Rentals**	**SD+Full Operations**
Facility Staff				
	Aquatic Director	$0	$60,224	$60,000
	Full Time Benefits	$0	$24,090	$24,000
	Lifeguard Personel	$94,392	$94,392	$94,392
	Front Desk Personnel	$0	$0	$0
	Personnel Equipment Cost	$1,433	$1,433	$1,433
	Training	$3,000	$6,000	$6,000
	Total Labor	**$98,825**	**$186,139**	**$185,825**
Direct Facility Expenses				
	Insurance	Not Included	Not Included	Not Included
	Repair and Maintenance	$25,200	$25,200	$25,200
	Operating Supplies	$7,560	$15,120	$15,120
	Chemicals	$32,563	$39,075	$39,075
	Advertising	$0	$2,000	$4,000
	Total Commodities	**$65,323**	**$81,395**	**$83,395**
Utilities				
	HVAC	$24,573	$24,573	$24,573
	Electricity	$47,519	$47,519	$47,519
	Pool Heating	$115,967	$115,967	$115,967
	Data/Communications	$5,184	$5,184	$5,184
	Trash Service	$3,120	$3,120	$3,120
	Water & Sewer	$11,464	$21,681	$52,706
	Total Utilities	**$207,827**	**$218,044**	**$249,068**
Programs				
	Program Supplies	$0	$0	$17,668
	LG Class Materials	$0	$0	$717
	Part-Time Program Staff	$0	$0	$196,629
	Total Programs	**$0**	**$0**	**$215,014**
Total Operating Expenses		**$371,975**	**$485,578**	**$733,302**

Appendix B: General Limiting Conditions

This study is based on information that was current as of January 2020. 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.