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CITY OF DAVIS recreation



Aquatic Assessment Report

February 21, 2018

BALLARD*KING & ASSOCIATES LTD

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Recreation Facility Planning and Operation Consultants

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Executive Summary

In April 2017, Ballard*King & Associates (B*K) was hired by the City of Davis (City) to evaluate its current aquatic operations and existing facility use agreements with local providers, including the review of two aquatic operational proposals submitted to the City for consideration. B*K is a national recreation planning and operations firm, based out of Denver, Colorado, whose primary focus includes feasibility studies, operational assessments, master plans and short-term management solutions. As a contractor for the City, B*K has no vested interest in the outcomes resulting from this report, thus B*K can offer the City an unbiased review of the materials under consideration.

Darin Barr, Senior Associate with B*K, is the primary consultant with the City on this project. In addition to Darin's ten years of consulting experience, Darin has an additional ten years of experience in the parks and recreation field, primarily in aquatics. In the development of this report, various City staff from both the City Manager's Office and the Parks & Community Services Department have been involved in the review and data collection as well as representative interviews from both the Davis Arden Racing Team (DARTs) and the Davis Aquatic Masters (DAM). The information contained within this report is intended to be used to inform the public and key decision-makers of existing and future programming and facility options that will maximize the City's return on investment, and provide key recommendations for the City to consider as it determines its next steps in the planning process.

The following recommendations for operational, programming, facility, and financial elements should provide a guide for the City's decision-making for the next five to ten years as it relates to its aquatic programs and facilities.

Market Analysis Key Findings:

- There is sufficient population in all service areas to support aquatics in the City of Davis. Further, the key demographic indicators of median age, median income and spending potential for entertainment & recreation are favorable.

- Approximately 14.9%, or 10,800 individuals (2016 population) participate in swimming, which encompasses more than lap swimming. For the purposes of this report "swimming" should be viewed as any public use of City pool facilities.

- Swimming, or pool use, has been on the decline since 1990 and can be attributed to financial constraints and aging facilities.

- Current aquatic trends include development of; large municipal leisure pools and therapy pools. Like other recreation amenities multi-purpose, multi-use is the focus to maximize participation and revenue generation, while not duplicating services.

- There are over 30 alternative service providers, specifically 50M pools, within a 100-mile radius of the City of Davis, with additional facilities currently under construction. The bulk of these are private, or limited public access facilities, all of which have some variety of competitive aquatic program using them.

Pool Usage & Programming Key Findings:

- The primary bodies of water at all four City-owned aquatic facilities are lap pools. This fact emphasizes that the City facilities currently cater to the competitive aquatic community, versus the public that may be more interested in the social and entertainment aspects of swimming.

- There are social and entertainment features at both the Arroyo and Manor facilities; slides, zero depth entries, diving boards, etc. but neither facility has an abundance of these attributes that cater to the casual user.

Operational Opinion Key Findings:

- In the 2016-2017 budget year, DAM and DARTs accounted for 21.2% of total revenue ($119,922) in aquatics. Operational expenses were more than double of revenue, totaling $285,201 (salaries, wages, gas, electric, phone) to operate the Civic & Community Pools. These pools are not open publicly.

- Both DAM and DARTs are paying significantly less than market rates when the lap lane hours are analyzed in comparison with revenue. The current rate structure makes it difficult to accurately track usage and perhaps a different structure could assist in tracking.

- It is the opinion of B*K that the DART proposal to operate all City of Davis aquatic facilities lacks the specificity needed in order for the City to make an informed decision. Further, their operation of the pool is dependent upon the City providing a sufficient subsidy ($470,000). The City provided a $544,174 subsidy to aquatics in the 2016-2017 budget year.

- In our experience, the proposal from DART for the City to develop a 50M pool underestimates the costs associated with building and operating an indoor 50M pool.

Economic Conclusions:

- The cost to provide aquatic facilities and services to the public will continue to increase because of the increased cost associated with labor and utilities.

- The City achieved an aquatics cost recovery rate of 51.0% in the 2016-2017 budget year, which is on the lower end of the national cost recovery range of 50-75% for outdoor aquatic operations. To maintain or increase the cost recovery rate, the City will need to continue to evaluate program fees, along with admission and passes to ensure they are aligned with an appropriate fee structure policy and cost recovery expectations.

- Both DAM and DARTs are paying significant less than market rates for the quantity of pool time that they are using.

- The development of a 50M pool could potentially eliminate the need for the Civic Pool and would generate an economic impact for the community in the way of hosting additional aquatic events. The economic impact could be realized in terms of additional sales tax dollars to local businesses, although sales tax revenue does not directly cover City facility operating expenses.

Future Direction & Recommendations:

- The City should determine their cost recovery expectations for aquatics as part of the Parks & Community Services Department.

- The City should determine to what degree they wish to continue to support and subsidize competitive aquatics. Our recommendation would be that the City begin with a gradual implementation of the new rental rate structure.

- The City should continue to work with DARTs to better understand the depth and breadth of their usage needs of the Community Pool.

- The City should continually evaluate their use agreements with all user groups. This should include slowly converting from a flat fee structure to one based on actual facility usage.

- In the opinion of B*K, it is highly likely that both Civic and Community Pools will fail in the next 5-10 years without significant capital improvement. The City should determine the level of capital investment they wish to continue to invest in these aging facilities. Should the City choose not to further invest in these pools, it is unlikely there would be

negative public impact, primarily because there is not currently public usage of these facilities.

- The City may wish to consider the needs of the entire community, in addition to the needs of the competitive aquatic users, in determining future investments in aquatic facilities. The needs of the infrequent and occasional swimmers (outlined in the market analysis) are significantly underserved in the current environment.

- The primary reason that B*K would recommend moving to a management contract of all City aquatic facilities would be if such a move significantly decreased the level of subsidy. This does not appear to be the case.

- B*K would not recommend incorporating a bubble structure at Community Pool. The costs associated with retrofitting an aging facility are high and would only service a small, although dedicated, market segment of competitive aquatic users.

- For the reasons outlined above, which include servicing a greater portion of the community and reducing operational costs, B*K would only recommend the development of a 50M pool at the Community Pool location if these criteria could be accomplished, along with the development of a significant leisure pool component at the same site.

*Editor's Note: Ballard*King & Associates worked directly for the City of Davis to develop this report and did not interface with previous architects or consultants. Any similarity in findings between the report developed by previous consultants and Ballard*King is based on the consultant's opinion as subject matter experts.*

Section II – Market Assessment

The following is a summary of the demographic characteristics of the identified service areas for the purposes of this report. The service areas have been identified based upon B*K's experience with similar projects, and data provided by City of Davis program staff.

B*K accesses demographic information from Environmental Systems Research Institute (ESRI) who utilizes 2010 Census data and their demographers for 2016-2021 projections. In addition to demographics, ESRI also provides data on housing, recreation and entertainment spending and adult participation in activities. B*K also uses information produced by the National Sporting Goods Association (NSGA) to overlay onto the demographic profile to determine potential participation in various activities.

Service Areas: Based on use patterns from previous years at Arroyo and Manor Pools the Primary Service Area has been identified as the zip codes of 95616, 95617 and 95618. For comparative purposes, the demographic characteristics of both the Manor Pool Service Area and Arroyo Pool Service Area have been included, and are based upon previous years' utilization rates provided by the City.

Primary Service Areas are defined as the anticipated distance people will travel on a regular basis (a minimum of once a week) to utilize aquatic facilities. Use by individuals outside of these areas will be much more limited and will focus more on special activities or events.

Service areas can vary in size with the types of components in the facility. An aquatic facility with unique elements (water slides, zero depth entry, lazy river, therapy pool) will have a larger service area than a traditional, flat-water, rectangular shaped pool. Specialized facilities such as a 50M competitive pool, wave pool, stationary wave machine will have a larger service area and extend significant use beyond the Primary Service Area. From previous studies a reasonable service area for a 50M pool is a 100-mile radius, but can be impacted by the presence of other providers.

Service areas can flex or contract based upon a facility's proximity to major thoroughfares. Other factors impacting the use as it relates to driving distance are the presence of alternative and credible service providers in the service area. Alternative service providers can influence membership, daily admissions and the associated penetration rates for programs and services.

Primary Service Area Description – The primary service area is the zip codes of 95616, 95617 and 95618.

Map A – Primary Service Area Map:

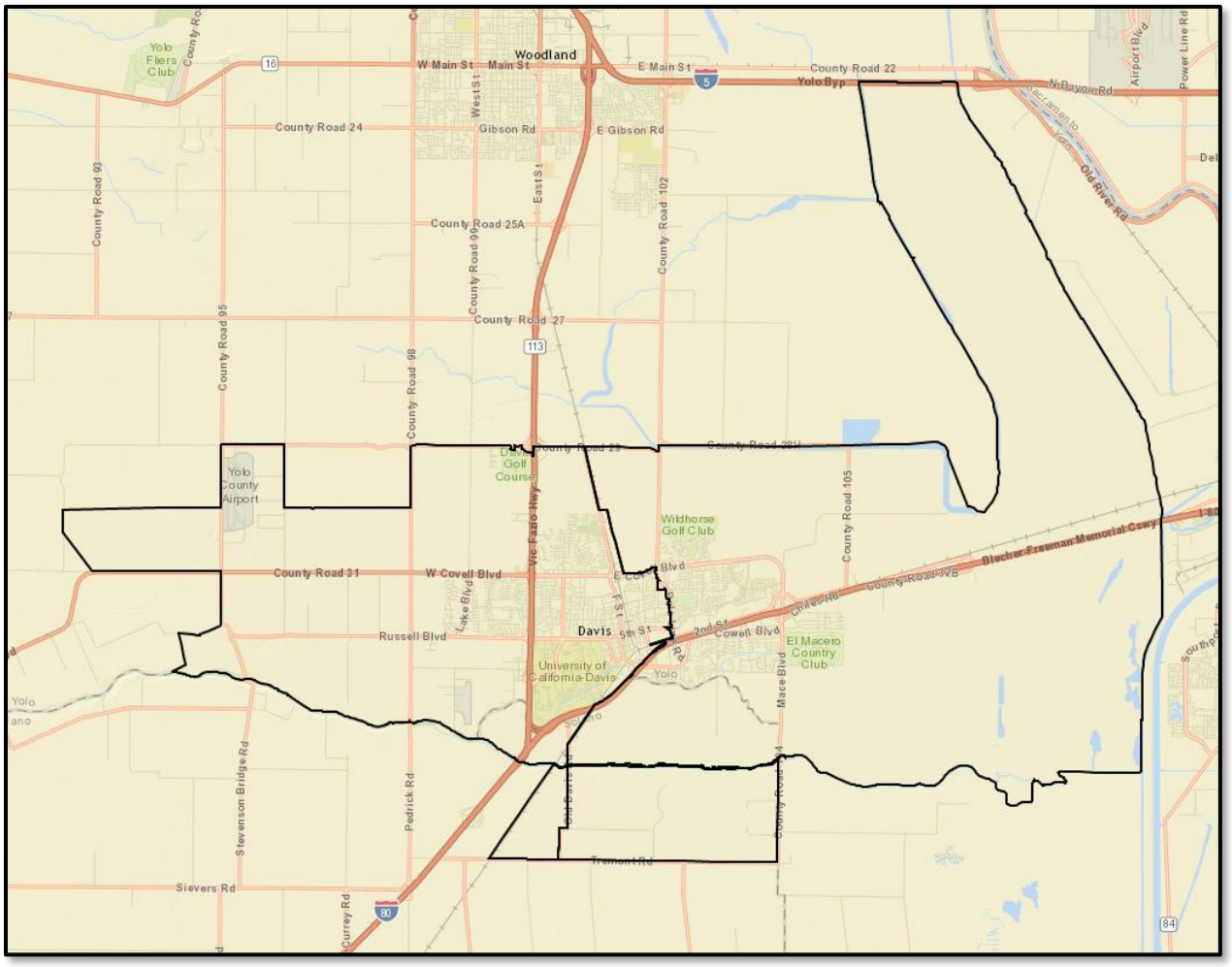


Table A – Service Area Comparison Chart:

	Primary Service Area	City of Davis	Manor Pool	Arroyo Pool
Population:				
2010 Census	74,321[1]	65,622[2]	26,906	47,415
2016 Estimate	76,180	67,548	28,063	48,117
2021 Estimate	78,949	70,008	29,198	49,751
Households:				
2010 Census	27,117	24,873	9,742	17,375
2016 Estimate	27,712	25,327	10,007	17,705
2021 Estimate	28,591	26,093	10,342	18,249
Families:				
2010 Census	13,167	11,925	5,827	7,340
2016 Estimate	13,426	12,184	5,991	7,435
2021 Estimate	13,834	12,542	6,197	7,637
Average Household Size:				
2010 Census	2.54	2.55	2.75	2.43
2016 Estimate	2.58	2.59	2.79	2.47
2021 Estimate	2.60	2.61	2.81	2.48
18-24 Age Population				
2010 Census	26,242	21,757	6,015	20,227
2016 Estimate	25,134	20,897	5,833	19,301
2021 Estimate	24,353	20,164	5,493	18,860
Ethnicity (2016 Estimate):				
Hispanic	13.6%	13.6%	14.4%	13.1%
White	61.5%	62.7%	62.8%	60.8%
Black	2.3%	2.4%	2.4%	2.3%
American Indian	0.5%	0.5%	0.6%	0.4%
Asian	24.0%	22.8%	22.7%	24.7%
Pacific Islander	0.2%	0.2%	0.2%	0.2%
Other	5.3%	5.2%	4.8%	5.6%
Multiple	6.2%	6.2%	6.6%	6.0%
Median Age:				
2010 Census	24.8	25.3	28.8	24.2
2016 Estimate	26.3	27.1	30.1	24.8
2021 Estimate	27.8	28.7	31.8	25.6
Median Income:				
2016 Estimate	$56,890	$58,045	$86,447	$42,092
2021 Estimate	$60,811	$62,726	$99,127	$42,081

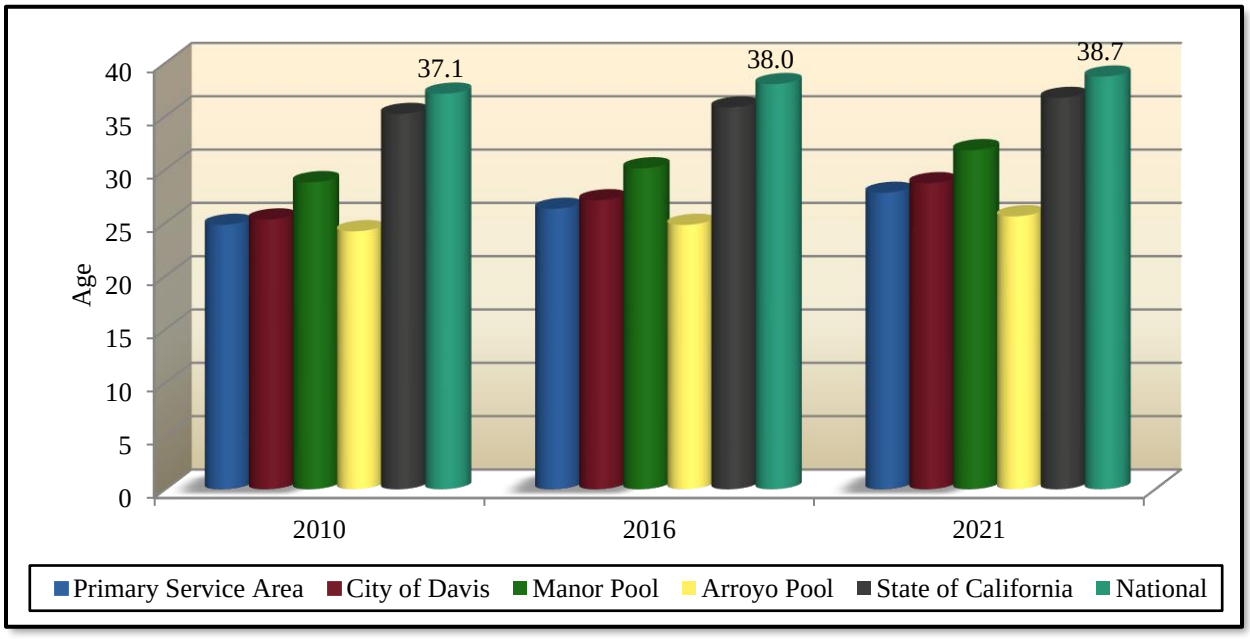
[1] Between the 2000-2010 Census, the Primary Service Area experienced a 9.4% increase in population.
[2] Between the 2000-2010 Census, the City of Davis experienced a 7.8% increase in population.

Age and Income: It is important to compare the median age and median household income levels to the national levels. Age and income are primary determiners of participation in recreation activities. The lower the median age, the higher the participation rates are for most activities. The level of participation also increases as the median income level goes up.

Table B – Median Age:

	2010 Census	2016 Projection	2021 Projection
Primary Service Area	24.8	26.3	27.8
City of Davis	25.3	27.1	28.7
Manor Pool	28.8	30.1	31.8
Arroyo Pool	24.2	24.8	25.6
State of California	35.2	35.8	36.7
National	37.1	38.0	38.7

Chart A – Median Age:



The median age in the State of California is slightly less than National number. All other identified service areas are significantly less than the State and National number. A low median age, similar to that of the service areas, can often be attributed to the presence of a large college or university which is present with the University of California-Davis.

Households with Children: The following chart provides the number of households and percentage of households in the identified service areas with children. Children are significant participants in swimming and aquatic programs. However, more so than most activities, swimming can span the entire age spectrum.

Table C – Households w/ Children – 2010 Census Data

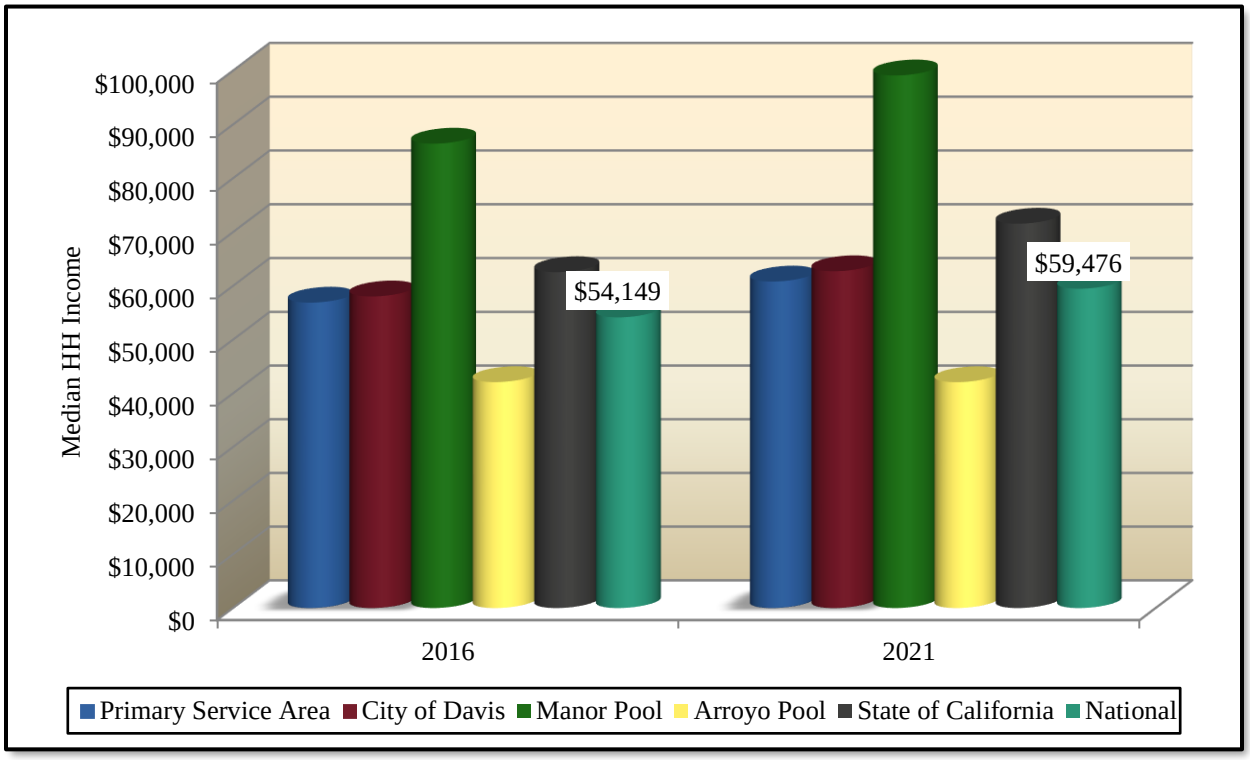
	Number of Households w/ Children	Percentage of Households w/ Children
Primary Service Area	6,653	24.5%
City of Davis	6,119	24.6%
Manor Pool	3,339	34.3%
Arroyo Pool	3,314	19.1%
State of California	4,713,016	37.5%
National	38,996,219	33.4%

The information contained in Table-B helps further outline the presence of families with children. As a point of comparison in the 2010 Census, 37.5% of households in the State of California had children present and 33.4% of households nationally. The percentage of households with children in all service areas is less than the State and National number. Typically, this would point to an older population, and while that population is represented in the service areas, the low median age is driven by the University of California-Davis.

Table D – Median Household Income:

	2016 Projection	2021 Projection
Primary Service Area	$56,890	$60,811
City of Davis	$58,045	$62,726
Manor Pool	$86,447	$99,127
Arroyo Pool	$42,092	$42,081
State of California	$62,554	$71,566
National	$54,149	$59,476

Chart B – Median Household Income:



Based on 2016 projections for median household income the following narrative is available:

In the Primary Service Area, the percentage of households with median income over $50,000 per year is 54.0% compared to 54.0% nationally. Furthermore, the percentage of the households in the service area with median income less than $25,000 per year is 27.7% compared to a level of 22.6% nationally.

In the City of Davis, the percentage of households with median income over $50,000 per year is 54.6% compared to 54.0% nationally. Furthermore, the percentage of the households in the service area with median income less than $25,000 per year is 27.3% compared to a level of 22.6% nationally.

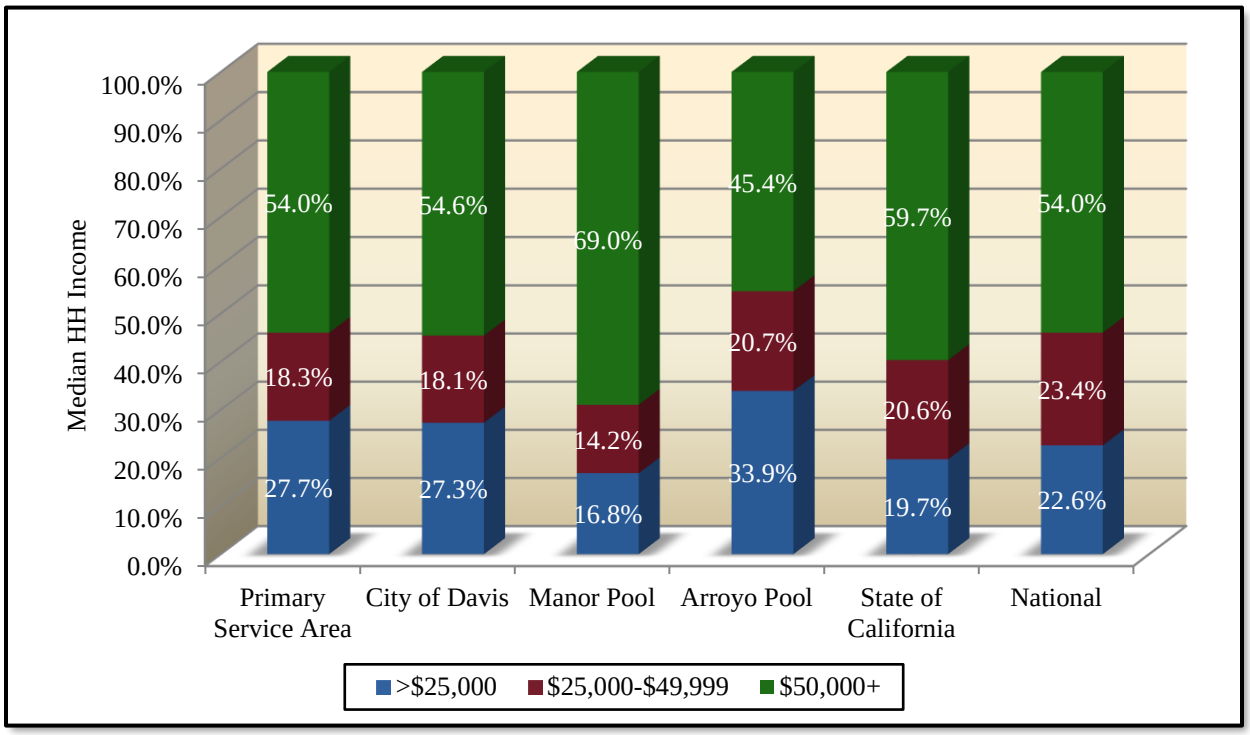
In the Manor Pool Service Area, the percentage of households with median income over $50,000 per year is 69.0% compared to 54.0% nationally. Furthermore, the percentage of the households in the service area with median income less than $25,000 per year is 16.8% compared to a level of 22.6% nationally.

In the Arroyo Pool Service Area, the percentage of households with median income over $50,000 per year is 45.4% compared to 54.0% nationally. Furthermore, the percentage of the households in the service area with median income less than $25,000 per year is 33.9% compared to a level of 22.6% nationally.

Households with median income over $50,000 have a higher propensity to pay for recreation services and program, which can equate to a higher cost recovery percentage.

The median household income in all service areas, except that of Arroyo Pool, are greater than the National number. The income level must be balanced with the overall cost of living to determine ability to pay for entertainment and recreation services. While there is no perfect indicator of participation at aquatic and/or recreation facilities a percentage of households with income greater than $50,000 is a significant indicator.

Chart C – Median Household Income Distribution



Household Budget Expenditures: In addition to studying Median Age and Median Income, it is important to examine Household Budget Expenditures. Looking at housing information; shelter, utilities, fuel and public services along with entertainment & recreation can provide a snapshot into the cost of living and spending patterns in the services areas. The table below provides this information and compares the service areas. The Spending Potential Index (SPI) number is based upon the national SPI of 100. Numbers greater than 100 indicate the spending potential index is greater than the national number while numbers lower than 100 indicate less dollars being spent.

Table E – Household Budget Expenditures[3]:

Primary Service Area	SPI	Average Amount Spent	Percent
Housing	125	$25,661.58	31.8%
Shelter	*128*	*$19,937.52*	*24.7%*
Utilities, Fuel, Public Service	*117*	*$5,724.05*	*7.1%*
Entertainment & Recreation	120	$3,493.85	4.3%

City of Davis	SPI	Average Amount Spent	Percent
Housing	124	$24,453.27	31.8%
Shelter	*127*	*$19,766.05*	*24.7%*
Utilities, Fuel, Public Service	*117*	*$5,687.22*	*7.1%*
Entertainment & Recreation	119	$3,469.40	4.3%

Manor Pool	SPI	Average Amount Spent	Percent
Housing	152	$31,125.05	31.4%
Shelter	*156*	*$24,237.02*	*24.5%*
Utilities, Fuel, Public Service	*141*	*$6,888.03*	*7.0%*
Entertainment & Recreation	149	$4,341.87	4.4%

Arroyo Pool	SPI	Average Amount Spent	Percent
Housing	110	$22,409.08	32.0%
Shelter	*112*	*$17,389.26*	*24.8%*
Utilities, Fuel, Public Service	*103*	*$5,019.81*	*7.2%*
Entertainment & Recreation	103	$3,010.54	4.3%

[3] Consumer Spending data are derived from the 2004 and 2005 Consumer Expenditure Surveys, Bureau of Labor Statistics. ESRI forecasts for 2016 and 2021.

State of California	SPI	Average Amount Spent	Percent
Housing	121	$24,657.37	31.7%
Shelter	*123*	*$19,193.70*	*24.6%*
Utilities, Fuel, Public Service	*112*	*$5,463.68*	*7.0%*
Entertainment & Recreation	117	$3,405.34	4.4%

The green highlight of numbers indicates a SPI greater than the national number of 100.

SPI: Spending Potential Index as compared to the National number of 100.
SPI Color: Green indicates a SPI greater than the National number of 100, Red indicates less than.
Average Amount Spent: The average amount spent per household.
Percent: Percent of the total 100% of household expenditures.

Note: Shelter along with Utilities, Fuel, Public Service are a portion of the Housing percentage.

Chart D – Household Budget Expenditures Spending Potential Index:

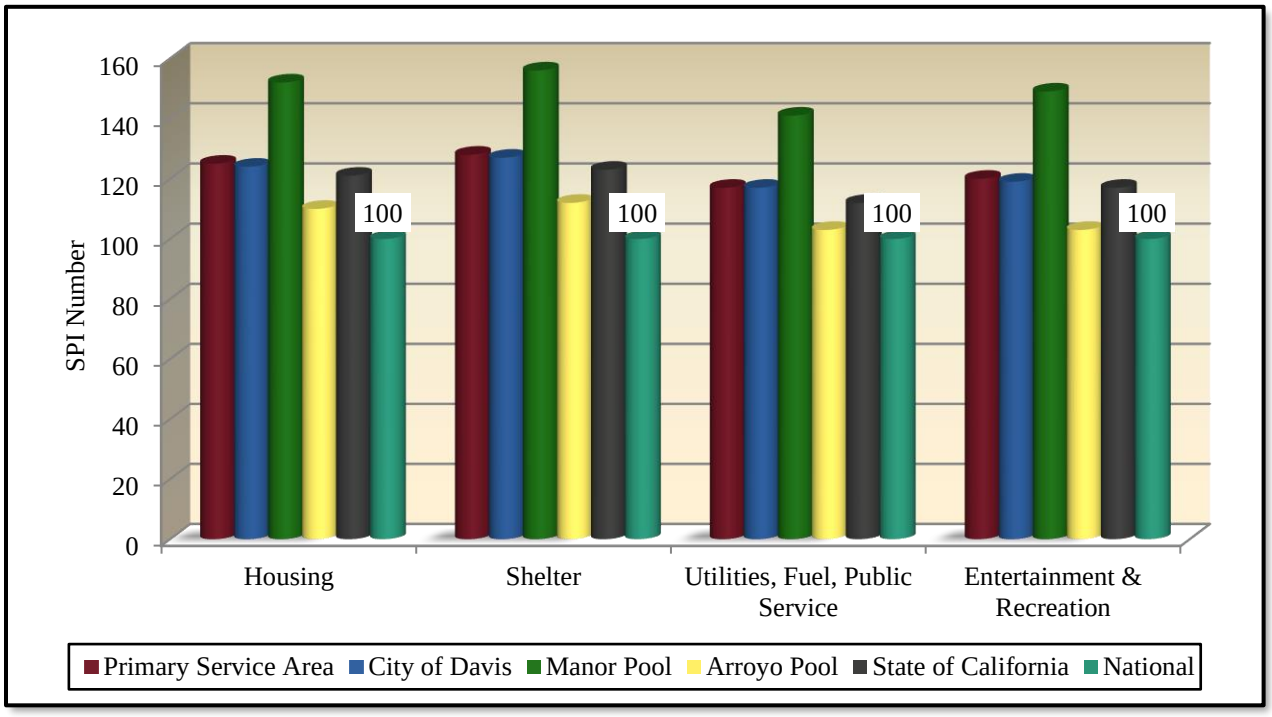


Chart D illustrates the Household Budget Expenditures Spending Potential Index in the service areas. The SPI does not follow a consistent pattern with median household income. The State of California is greater than the National number, while both the City of Davis and the Primary Service Area is less. This would indicate a lower cost of living in those areas.

Further Narrative on Housing:

The total number of housing units in the City of Davis, according to the 2010 Census, is 28,294 and 95.8% of those are occupied, or 27,117 housing units. Of the vacant units:

- For Rent 2.0%
- Rented, Not Occupied 0.2%
- For Sale Only 0.4%
- Sold, Not Occupied 0.1%
- For Seasonal/Rec/Occasional Use 0.7%
- For Migrant Workers 0.2%
- Other Vacant 0.5%

Recreation Expenditures Spending Potential Index: Finally, through the demographic provider that B*K utilizes for the market analysis portion of the report, we can examine the overall propensity for households to spend dollars on recreation activities. The following comparisons are possible. The Spending Potential Index (SPI) number is based upon the national SPI of 100. Numbers greater than 100 indicate the spending potential index is greater than the national number while numbers lower than 100 indicate less dollars being spent. The Average Spent indicates how much was spent per household for a calendar year.

Table F – Recreation Expenditures Spending Potential Index[4]:

Primary Service Area	SPI	Average Spent
Fees for Participant Sports	115	$103.32
Fees for Recreational Lessons	113	$138.86
Social, Recreation, Club Membership	120	$230.35
Exercise Equipment/Game Tables	107	$58.19
Other Sports Equipment	117	$11.16

City of Davis	SPI	Average Spent
Fees for Participant Sports	115	$102.94
Fees for Recreational Lessons	112	$138.50
Social, Recreation, Club Membership	119	$228.66
Exercise Equipment/Game Tables	106	$58.01
Other Sports Equipment	116	$11.10

Manor Pool	SPI	Average Spent
Fees for Participant Sports	158	$141.10
Fees for Recreational Lessons	162	$199.34
Social, Recreation, Club Membership	160	$305.43
Exercise Equipment/Game Tables	144	$78.64
Other Sports Equipment	140	$13.34

Arroyo Pool	SPI	Average Spent
Fees for Participant Sports	94	$84.09
Fees for Recreational Lessons	89	$109.24
Social, Recreation, Club Membership	100	$191.03
Exercise Equipment/Game Tables	87	$47.68
Other Sports Equipment	103	$9.83

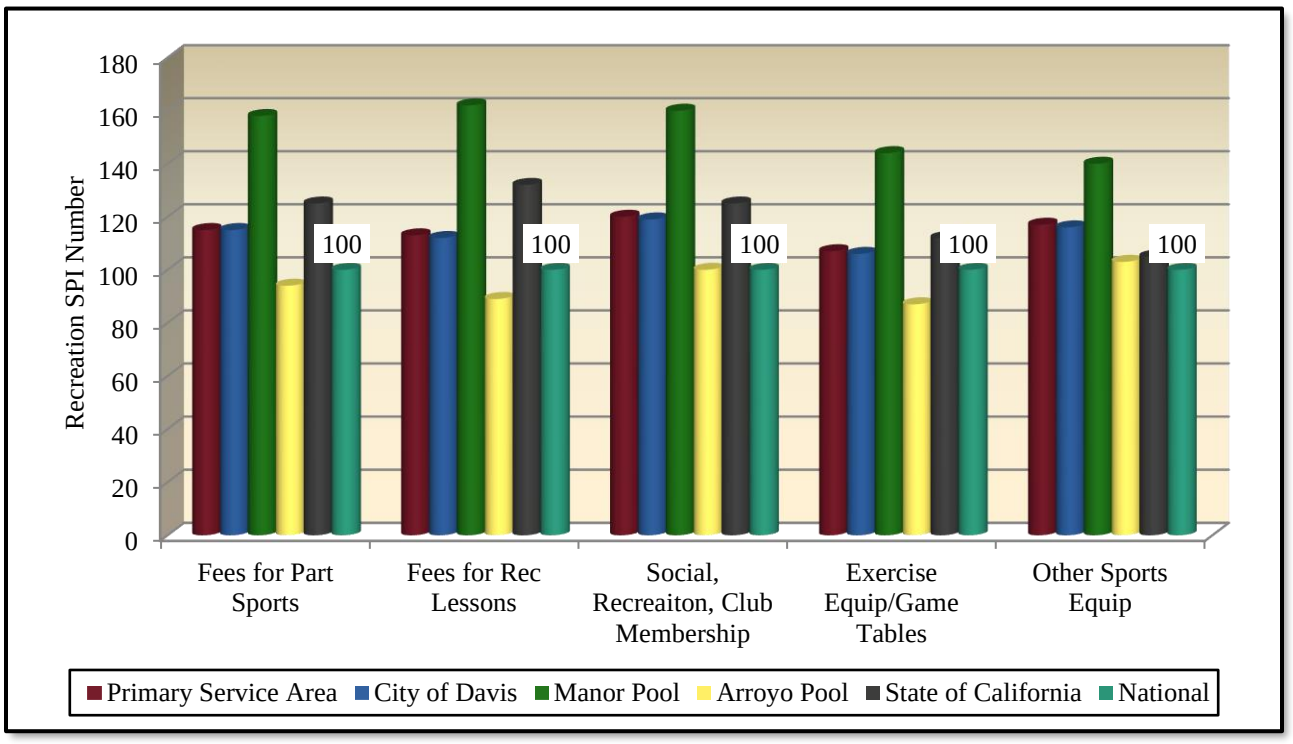
[4] Consumer Spending data are derived from the 2006 and 2007 Consumer Expenditure Surveys, Bureau of Labor Statistics.

State of California	SPI	Average Spent
Fees for Participant Sports	125	$112.13
Fees for Recreational Lessons	132	$162.55
Social, Recreation, Club Membership	125	$239.50
Exercise Equipment/Game Tables	112	$60.97
Other Sports Equipment	105	$10.05

The green highlight of numbers indicates a SPI greater than the national number of 100.

Average Amount Spent: The average amount spent per household for the service or item in a year.
SPI: Spending potential index as compared to the national number of 100.
SPI Color: Green indicates a SPI greater than the National number of 100, Red indicates less than.

Chart E – Recreation Spending Potential Index:



The Spending Potential Index for Recreation is like the Household Budgetary Spending. It is also important to note that these dollars are currently spent.

Demographic Summary

The following summarizes the demographic characteristics of the service areas.

- Based upon the population of the City of Davis and the Primary Service Area it is possible to support multiple aquatic centers. To effectively do so, those facilities will need to be diverse in facility components and programming.

- The median age in all services areas is significantly less than the State and National number. Again, this lower median age is driven by the University of California-Davis. It is also important to note that the student body population's needs are being addressed by the University with two pools on campus; one geared towards competition and the other more towards leisure participation.

- All service areas are expected to see increases in population, with the largest population increase taking place around Arroyo Pool. The increase in population is not attributed to an increase in enrollment at the university. Universities across the country are experiencing a decline in population. The increase in population can be attributed to new permanent residents, which would be participants in aquatic programming.

- The median household income is such that the City of Davis should be able to generate revenue from their pools and aquatic programs. The entertainment and spending potential reflects dollars that are being spent in and around the community. Most municipally operated seasonal pools can expect to capture between 50-75% of their operating expenses. This number can fluctuate based upon the market and the amenities included in the pool.

- The Tapestry segments point to an active community, which is also reflected later in this report, specifically with adult participation in swimming.

Participation

In addition to analyzing the demographic realities of the service areas, it is possible to project possible participation in swimming.

Participation Numbers: On an annual basis, the National Sporting Goods Association (NSGA) conducts an in-depth study and survey of how Americans spend their leisure time. This information provides the data necessary to overlay rate of participation onto the Primary Service Area to determine market potential. The information contained in this section of the report, utilizes the NSGA's most recent survey. This data was collected in 2016 and the report was issued in May of 2017.

B*K takes the national average and combines that with participation percentages of the Primary Service Area based upon age distribution, median income, region and National number. Those four percentages are then averaged together to create a unique participation percentage for the service area. This participation percentage when applied to the population of the Primary Service Area then provides an illustration of the market potential for swimming.

It is important for the City to understand that through this section and subsequent sections of the report, B*K will refer to swimming and swimmers. *The City should not view swimming and swimmers as only competitive swimming.* Rather, swimmers and swimming should be viewed as pool users with competitive swimming and lap swimming as one portion of overall pool usage.

Swimming Participation: These activities could take place at an outdoor aquatic center.

Table G – Swimming Participation Rates for the Primary Service Area

	Age	Income	Region	Nation	Average
Swimming	14.4%	16.0%	13.8%	15.5%	14.9%
Did Not Participate[5]	21.2%	21.8%	20.4%	22.4%	21.5%

Age: Participation based on individuals ages 7 & Up of the Primary Service Area.
Income: Participation based on the 2016 estimated median household income in the Primary Service Area.
Region: Participation based on regional statistics (Pacific).
National: Participation based on national statistics.
Average: Average of the four columns.

Note: The NSGA does not track rates of participation, for any activity, in the ages 0-7. It is important to remember that while the rate of participation is not tracked for that age group, there is a significant percentage of the swimming population in that age group.

Anticipated Swimming Participation Number: Utilizing the average percentage from Table-A above plus the 2010 census information and census estimates for 2016 and 2021 (over age 7) the following comparisons are available.

Table H – Swimming Participation Growth of Decline

	Average	2010 Population	2016 Population	2021 Population	Difference
Swimming	14.9%	10,503	10,800	11,190	+686
Did Not Participate	21.5%	15,093	15,519	16,079	+986

Note: The estimated participation numbers indicated above are for swimming and "did not participate." These figures do not necessarily translate into attendance figures for various activities or programs. The "Did Not Participate" statistics refers to all 55 activities outlined in the NSGA 2015 Survey Instrument.

[5] Did No Participate refers to all 55 activities tracked by the NSGA.

The chart below outlines the frequency of participation in Swimming.

Table I – Participation Frequency Swimming

The NSGA classifies Swimming based on how often individuals participate:

	Frequent	Occasional	Infrequent
Swimming Frequency	110+	25-109	6-24
Swimming Percentage of Population	6.1%	41.2%	52.7%

In Table-I one can look at swimming and how it is defined with respect to visits being Frequent, Occasional or Infrequent and then the percentage of population that participates.

Table J – Participation Numbers

	Frequent	Occasional	Infrequent	Total
Swimming Frequency	112	67	15	
Population	734	4,536	5,529	
Visits	82,249	303,899	82,940	**469,088**

Table-J takes the frequency information one step further and identifies the number of times individuals may participate in the activity, applies the percentage from Table-I to the 2016 swimming population (10,800) and then gives a total number of swimming days. This would indicate that a total of 469,088 swimming days are available within the Primary Service Area market. It is also important to note that those are being absorbed, on some level, by the other service providers in the area.

The City of Davis has a very active competitive swimming community with the presence of DART (youth) and DAM (masters). The competitive swimming community has realized significant increase in participation in the past 12 years. This can be attributed to the "Michael Phelps effect" or the more mainstream discussion of swimming as a sport.

The NSGA identifies participation in all activities that they track as frequent, occasional and infrequent as illustrated in Table N and Table O. It is also important to further identify the uses of those categories.

Frequent Swimmers (6.8% of total swimming population) – These participants are largely the individuals participating in programs like DART and DAM. They can be described as competitive athletes of all variety to include multi-sport athletes. These participants are interested in traditional flat-water facilities, i.e. lap pools. Their preference is for deep water (greater than 6 feet) and cooler water temperatures (between 76-80).

Occasional Swimmers (42.0% of total swimming population) – These participants and the in between group of swimmers. The individuals on the high end of the uses per year are interested in swimming, or aquatic activities, as a means of exercise and prefer water like that of frequent swimmers. As you approach the mid-point and lower-level of participation the reason for aquatic participation changes. Those individuals are either interested in aquatic participation for exercise/therapy or strictly the entertainment and social aspects of being in a pool. Those individuals on the mid and lower level of participation are interested in a different kind of water. They are more interested in a warmer water temperature (82-86 degrees) shallow water (less than 4 feet up to a zero-depth entry).

Infrequent Swimmers (51.2% of total swimming population) – These participants are strictly interested in the social and entertainment aspects of swimming. They typically don't use participation in aquatic programs as a means of exercise, but rather socialization. The water that they are interested in is identical to the lower end of the occasional swimmers. However, they are also interested in a "wow-factor" which plays a key role in determining which facility they may visit.

As the City of Davis contemplates future allocation of dollars specific to aquatics, they should consider which swimming population(s) they are addressing and which they want to address. It is the opinion of B*K that there is an abundance of flat water in the City, which directly correlates to the needs of the Frequent Swimmers and a significant percentage of the Occasional Swimmers. In contrast, the City has very few leisure pool elements that would attract Infrequent Swimmers, and no true dedicated leisure water. This equates to possibly not fully addressing the needs of approximately 50% of the swimming population within the City.

The development of a leisure pool or waterpark-like facility comes with a significant capital investment. Additionally, a leisure pool can come with a higher cost to operate, specifically with staffing. However, because a leisure pool appeals to the largest portion of the swimming population (infrequent swimmers) and can be programmed to the needs/wants of some occasional swimmers, leisure pools typically have a higher cost recovery rate in contrast to traditional flat water, rectangle shaped pools.

Participation by Ethnicity and Race: The table below compares the overall rate of participation nationally with the rate for Hispanics and African Americans. Utilizing information provided by the National Sporting Goods Association's 2016 survey, the following comparisons are possible.

Table K – Comparison of National, African American and Hispanic Participation Rates

Indoor Activity	Primary Service Area	National Participation	African American Participation	Hispanic Participation
Swimming	14.9%	15.5%	9.3%	14.1%
Did Not Participate	21.5%	22.4%	26.3%	23.6%

Primary Service Part: The unique participation percentage developed for the Primary Service Area.
National Rate: The national percentage of individuals who participate in the given activity.
African American Rate: The percentage of African-Americans who participate in the given activity.
Hispanic Rate: The percentage of Hispanics who participate in the given activity.

There is a significant (greater than 10%) Hispanic population in the Primary Service Area. As such these numbers play more of a factor with regards to overall participation. The red and green highlight emphasizes the rate of participation being less than (red) or greater than (green) the national number.

Summary of Sports Participation: The following chart summarizes participation activities utilizing information from the 2016 National Sporting Goods Association survey.

Table L – Sports Participation Summary

Sport	Nat'l Rank[6]	Nat'l Participation (in millions)
Exercise Walking	1	105.7
Exercising w/ Equipment	2	57.1
Swimming	**3**	**45.6**
Aerobic Exercising	4	45.6
Running/Jogging	5	44.9
Workout @ Club	8	37.8
Bicycle Riding	9	36.2
Weight Lifting	10	35.6
Yoga	12	30.3
Basketball	14	24.8
Soccer	20	14.1
Volleyball	24	10.7
Martial Arts/MMA	35	6.2
Gymnastics	36	6.1
Pilates	40	5.5
Boxing	47	3.6
Lacrosse	51	2.9

Nat'l Rank: Popularity of sport based on national survey.
Nat'l Participation: Percent of population that participate in this sport on national survey.

[6] This rank is based upon the 55 activities reported on by NSGA in their 2015 survey instrument.

Participation by Age Group: Within the NSGA survey, participation is broken down by age groups. As such B*K can identify the top 3 age groups participating in the activities reflected in this report.

Chart M – Participation by Age Group:

Activity	Largest	Second Largest	Third Largest
Exercise Walking	55-64	65-74	45-54
Exercising w/ Equipment	18-24	25-34	35-44
Swimming	**7-11**	**12-18**	**35-44**
Aerobic Exercising	25-34	35-44	18-24
Running/Jogging	18-24	12-17	25-34
Workout @ Club	18-24	25-34	35-44
Bicycle Riding	7-11	12-17	45-54
Weight Lifting	18-24	25-34	35-44
Yoga	25-34	18-24	35-44
Basketball	7-11	12-17	18-24
Soccer	7-11	12-17	18-24
Volleyball	12-17	7-11	18-24
Martial Arts/MMA	7-11	12-17	25-34
Gymnastics	7-11	12-17	25-34
Pilates	25-34	35-44	18-24
Boxing	25-34	18-24	12-17
Lacrosse	12-17	7-11	18-24
Did Not Participate	75+	55-64	65-74

Largest: Age group with the highest rate of participation.
Second Largest: Age group with the second highest rate of participation.
Third Largest: Age group with the third highest rate of participation.

The NSGA does not collect data for participants under the age of 7. However, based on data and observations from around the country the age group of 3-6 years are significant users of aquatics facilities and programs in tandem with their families.

Cross-Participation: The NSGA also analyzes swimmer's participation in other activities. The Chart below illustrates various activities that swimmers participate in and the propensity for participation.

Chart N – Participation by Age Group:

Activity	% Participating In….	Total U.S. Participation	Index
Exercise Walking	55.3%	36.0%	154
Running/Jogging	38.3%	15.3%	250
Exercising w/ Equipment	36.2%	19.5%	186
Bicycle Riding	35.4%	12.3%	287
Hiking	35.2%	14.6%	241
Aerobic Exercising	27.6%	15.5%	178
Work Out @ Club	21.7%	12.9%	169
Basketball	20.7%	8.4%	246
Weightlifting	19.0%	12.1%	157
Yoga	16.9%	10.3%	164
Soccer	15.9%	4.8%	331
Golf	13.4%	6.3%	213
Tennis	10.8%	4.3%	250
Volleyball	9.9%	3.6%	271
Baseball	9.8%	4.1%	236

Chart S illustrates the propensity of swimmers to participate in other activities. As one can see swimmers as a group are very active and their rate of participation is anywhere from 70% to 200% greater than the National Index of 100.

Market Potential Index for Adult Participation: In addition to examining the participation numbers for various indoor activities through the NSGA 2015 Survey and the Spending Potential Index for Entertainment & Recreation, B*K can access information about Sports & Leisure Market Potential. The following information illustrates participation rates for adults in swimming in the Primary Service Area.

Table O – Market Potential Index for Adult Participation in Activities

Adults participated in:	Expected Number of Adults	Percent of Population	MPI
Swimming	14,026	21.6%	139

Expected # of Adults: Number of adults, 18 years of age and older, participating in the activity in the Primary Service Area.
Percent of Population: Percent of the service area that participates in the activity.
MPI: Market potential index as compared to the national number of 100.
MPI Color: Green indicates a MPI greater than the National number of 100, Red indicates less than.

This table indicates that the overall propensity for adults to participate in swimming is greater than the national number of 100. In many cases when a participation number is lower than the National number, primary factors include a lack of facilities or an inability to pay for services and programs.

Sports Participation Trends: Below are listed several sports activities and the percentage of growth or decline that each has experienced nationally over the last ten years (2006-2015).

Table P – National Activity Trend (in millions)

Increasing in Popularity

	2007 Participation	2016 Participation	Percent Change
Yoga	10.7	30.3	+183.2%
Gymnastics[7]	3.9	6.1	+56.4%
Running/Jogging	30.4	44.9	+47.7%
Aerobic Exercising	34.8	45.6	+31.0%
Exercise Walking	89.8	105.7	+17.7%
Exercising w/ Equipment	52.9	57.1	+7.9%
Weight Lifting	33.2	35.6	+7.2%
Basketball	24.1	34.8	+2.9%
Workout @ Club	36.8	37.8	+2.7%
Soccer	13.8	14.1	+2.2%
Pilates[8]	5.5	5.5	+0.0%

Decreasing in Popularity

	2007 Participation	2016 Participation	Percent Change
Martial Arts / MMA[9]	6.4	6.2	-3.1%
Bicycle Riding	37.4	36.2	-3.2%
Boxing[10]	3.8	3.6	-5.3%
Volleyball	12.0	10.7	-10.8%
Swimming	**52.3**	**45.6**	**-12.8%**
Table Tennis / Ping Pong[11]	13.3	10.2	-23.3%
Billiards/Pool	29.5	21.3	-27.8%

2016 Participation: The number of participants per year in the activity (in millions) in the United States.
2007 Participation: The number of participants per year in the activity (in millions) in the United States.
Percent Change: The percent change in the level of participation from 2007 to 2016.

[7] Change since 2009.
[8] Change since 2014.
[9] Change since 2013.
[10] Change since 2013.
[11] Change since 2009.

Table Q – Sports Participation Trends Beyond 10-Year History by Millions

	1990	1995	2000	2005	2010	2015
Swimming	67.5	61.5	58.8	58.0	51.9	46.3

While swimming has decreased steadily since 1990 there have been multiple changes in the market impacting the overall participation. In no order of importance:

- Financial Constraints. It was not uncommon in the 1970s and 1980s for municipal agencies to offer free swim lessons. Additionally, many swim teams utilized public and school facilities at no cost. Transitioning from the 1980s to the 1990s there became a renewed focus on fiscal responsibility of the host agencies and many began to assess fees.

- Aging Facilities. Hand in hand with the financial constraints of operating a pool and shifting from free to pay-to-use, aquatic facilities are aging. As those facilities age many agencies are faced with the decision to continue offering services or eliminate them. Many agencies have consolidated their facilities.

Market Conclusions:

- Aquatics within the City of Davis is unique in that two pools are operated by the City of Davis on a seasonal basis, while DART has exclusive use of and operates the pools at Community Park and DAM has exclusive use of Civic Pool. For all aquatic facilities that the City of Davis provides some level of support.

- The level of support that the City provides makes B*K strongly question whether the City has decreased their overall spending on aquatics.

- The presence of DART operating the pools at Community Park serves as a competitor to the City of Davis for aquatic programming, fragmenting the market for potential customers. Specifically, swim lessons and aquatic group exercise classes.

- While both the Arroyo and Manor Pools have some active elements; slides, diving boards, zero depth entry and spray areas, they are flat water aquatic facilities. There is significant green space within both facilities and this does enhance their overall appeal to the infrequent swimmers. A significant challenge of Arroyo Pool is the lack of shade and picnic areas.

- The DAM and DART programs are significant providers of aquatic services to the community. Most masters swimming programs do not reach the size of DAM. This can be attributed to the passion for swimming within the community and the exclusive use of Civic Pool.

- Swimming as an activity, and irrespective of the opportunity to swim outdoors, year-round in California, is viewed and perceived as a summer pursuit. The ability of DART to operate the pools at Community Park provides a service to their team and a service to the community for those individuals that want to swim year-round. Those participants would fall into the frequent and occasional use that is defined in this report. Of the 50% of swimming participants remaining (infrequent users), the services provided by DAM and DART do not meet their needs/wants.

- The potential development of a 50M pool within the City of Davis would also serve the needs of the frequent and occasional swimmers, but do not entice usage by infrequent swimmers. The goal of a sustainable pool investment or redevelopment should be the creation of new swimmers and continual introduction of aquatic activities to new participants, in particular the infrequent user. The development of a 50M pool would consolidate the use of DART and DAM in one location. This would allow the City to reclaim the Civic Pool property and repurpose it for different use.

Section III – Pool Usage & Programming

The City of Davis has a total of four aquatic facilities that they own, two of which they operate on a seasonal basis. As an element of the operational review and management recommendations, B*K has been tasked with analyzing the two facilities that the City still operates. The following pages look at each of the aquatic facilities, their components, age groups that might use said components and programming opportunities within each facility.

Arroyo Pool:

Features & Age Group Appeal:

	U3	3-7	7-11	12-18	25-34	35-44	45-54	55-64	65-74	75+
Locker Rooms	X	X			X	X	X	X	X	X
Concessions		X	X	X	X	X				
Green Space	X	X	X		X	X				
Cement Patio		X	X	X	X	X				
Zero Depth Entry	X	X	X					X	X	X
Shallow Water	X	X	X	X	X	X	X	X	X	X
Slide Catch Pool		X	X	X						
Slide		X	X	X						
25Y Lap Lanes					X	X	X	X	X	X
Shallow Water	X	X	X	X	X	X	X	X	X	X
Deep Water				X	X	X	X	X	X	X
Diving Board(s)		X	X	X						

Zero Depth Entry:

- Appeal – infants, pre-school, youth, and older adults
- Program Opportunities:
  - Recreational drop-in swimming
  - Swim lessons
  - Entry for aqua aerobics
  - Special events
  - Birthday parties
  - Private rentals
- Revenue Potential: High
- Cost to Operate: Medium

Shallow Water:

- Appeal – full age spectrum of swimmers, especially appealing to the infrequency and low end of occasional swimmers
- Program Opportunities:
    - Recreational drop-in swimming (potential for use of large inflatables)
    - Swim lessons
    - Aqua aerobics
    - Special events
    - Paddle board yoga
    - Birthday parties
    - Private rentals
- Revenue Potential: Medium
- Cost to Operate: Medium

Slide Catch Pool:

- Appeal – full age spectrum of swimmers, especially appealing to the infrequency and low end of occasional swimmers
- Program Opportunities:
    - Recreational drop-in swimming
    - Swim lessons
    - Aqua aerobics
    - Birthday parties
    - Private rentals
- Revenue Potential: Medium
- Cost to Operate: Medium

Slide:

- Appeal – 7-18 year old, especially tweens
- Program Opportunities:
    - Recreational drop-in swimming (potential for use of large inflatables)
    - Birthday parties
    - Private rentals
- Revenue Potential: Medium
- Cost to Operate: High

25 Yard Lap Lanes:

- Appeal – main appeal to the high end of occasional swimmers and full spectrum of frequent swimmers
- Program Opportunities:
    - Recreational drop-in swimming (potential for use of large inflatables)
    - Swim lessons

  - Aqua aerobics
  - Special events
  - Paddle board yoga
  - Birthday parties
  - Private rentals
  - Lap swim
  - Competitive swim practice & meets
- Revenue Potential: Low-Medium
- Cost to Operate: Medium

Deep Water:

- Appeal – main appeal to the high end of occasional swimmers and full spectrum of frequent swimmers
- Program Opportunities:
  - Recreational drop-in swimming (potential for inflatable use)
  - Swim lessons
  - Special events
  - Paddle board yoga
  - Birthday parties
  - Private rentals
  - Lap swim
  - Competitive swim practice & meets
  - SCUBA/Snorkeling
- Revenue Potential: Low-Medium
- Cost to Operate: Medium

Diving Boards:

- Appeal – 7-18 year old, especially tweens
- Program Opportunities:
  - Recreational drop-in swimming
  - Diving lessons
  - Special events
  - Birthday parties
  - Private rentals
  - Competitive dive practice & meets
- Revenue Potential: Low-Medium
- Cost to Operate: Medium

Manor Pool:

Features & Age Group Appeal:

	U3	3-7	7-11	12-18	25-34	35-44	45-54	55-64	65-74	75+
Locker Rooms	X	X			X	X	X	X	X	X
Concessions		X	X	X	X	X				
Green Space	X	X	X		X	X				
Cement Patio		X	X	X	X	X				
Zero Depth Entry	X	X	X					X	X	X
Shallow Water	X	X	X	X	X	X	X	X	X	X
Slide		X	X	X						
25Y Lap Lanes					X	X	X	X	X	X
Shallow Water	X	X	X	X	X	X	X	X	X	X
Diving Board Pool			X	X	X	X	X	X		
Diving Board(s)		X	X	X						
Spray Pad	X	X	X							

Zero Depth Entry:

- Appeal – infants, pre-school, youth, and older adults
- Program Opportunities:
    - Recreational drop-in swimming
    - Swim lessons
    - Entry for aqua aerobics
    - Special events
    - Birthday parties
    - Private rentals
- Revenue Potential: High
- Cost to Operate: Medium

Shallow Water:

- Appeal – full age spectrum of swimmers, especially appealing to the infrequency and low end of occasional swimmers
- Program Opportunities:
    - Recreational drop-in swimming (potential for use of large inflatables)
    - Swim lessons
    - Aqua aerobics
    - Special events
    - Paddle board yoga
    - Birthday parties
    - Private rentals

- Revenue Potential: Medium
- Cost to Operate: Medium

Slide:

- Appeal – 7-18 year old, especially tweens
- Program Opportunities:
  - Recreational drop-in swimming (potential for inflatable use)
  - Birthday parties
  - Private rentals
- Revenue Potential: Medium
- Cost to Operate: High

25 Yard Lap Lanes:

- Appeal – main appeal to the high end of occasional swimmers and full spectrum of frequent swimmers
- Program Opportunities:
  - Recreational drop-in swimming (potential for inflatable use)
  - Swim lessons
  - Aqua aerobics
  - Special events
  - Paddle board yoga
  - Birthday parties
  - Private rentals
  - Lap swim
  - Competitive swim practice & meets
- Revenue Potential: Low-Medium
- Cost to Operate: Medium

Diving Board Pool:

- Appeal – main appeal to the high end of occasional swimmers and full spectrum of frequent swimmers
- Program Opportunities:
  - Recreational drop-in swimming (potential for inflatable use)
  - Swim lessons
  - Special events
  - Paddle board yoga
  - Birthday parties
  - Private rentals
  - Lap swim
  - Competitive swim practice & meets
  - SCUBA/Snorkling

- Revenue Potential: Low-Medium
- Cost to Operate: Medium

Diving Board Pool:

- Appeal – 7-18 year old, especially tweens
- Program Opportunities:
  - Recreational drop-in swimming
  - Diving lessons
  - Special events
  - Birthday parties
  - Private rentals
  - Competitive dive practice & meets
- Revenue Potential: Low-Medium
- Cost to Operate: Medium

Spray Pad:

- Appeal – U7 and 7-11 year old, Families
- Program Opportunities:
  - Recreational drop-in swimming
  - Special events
  - Birthday parties
  - Private rentals
- Revenue Potential: Low-Medium
- Cost to Operate: Low

Arroyo and Manor Pools are assets to the City of Davis. Swimming as an activity and pursuit is still one of the primary activities listed by the National Sporting Goods Association (NSGA). However, the primary focus of both Arroyo and Manor Pools are the traditional aspects of pool participation, i.e. lap lanes. There are aspects of both facilities that attempt to tap into the leisure market and engage those participants focused on water play and other social aspects. When the Community and Civic Center Pools are factored into the overall inventory, it appears the focus of aquatics within the City is on the traditional aspects of swimming or of a competitive nature. Those patrons are consistent users of the facility, but do not comprise the bulk of the swimmer days within the community. This results in a sizable portion of pool participants in the City of Davis going to non-City of Davis aquatic facilities for their social and entertainment needs in aquatics.

Section IV – Operational Opinion

Background Information & History

In addition to DAM and DART there are other competitive aquatics programs/organizations that utilize City facilities:

- Davis High School Swim Team (boys and girls) – Arroyo Pool
- Davis High School Water Polo Team (boys and girls) – Arroyo Pool
- Davis Water Polo Club (age group team) – Arroyo Pool
- Davis Aqua Starz (age group synchro) – Arroyo Pool
- Davis Aqua Monsters

Competitive aquatics, what B*K would refer to as traditional pursuits, are very strong within the City of Davis. Additionally, the competitive programs, except for the high school sports, pay rental fees to the City for use of the pools.

DAM and DART have exclusive use of Civic Pool. DAM membership includes 600-700 swimmers, according to organizers. Most of those participants are said to be from the City. The exclusive use of Civic Pool allows DAM to offer up to nine, 1-hour practices a day, which translates into approximately 47 practices over the course of the week. During the past 7 years the City has increased their rental rates 5-8%, which equates to $85,750 in rental fees during the 2016-2017 budget year. This does not cover the $174,301 in direct operational costs to the City for utilities, water, chemicals and staffing and capital improvement of Civic Pool.

DART has exclusive use of Community Pool, which includes two bodies of water, and has a membership of approximately 1,200 athletes. Representatives from DART estimate that 80% of its membership is from the City, but acknowledge that they pull participants from Sacramento, Fairfield, Woodland and Dixon areas. In addition to using Community Pool as their main training center, DART also programs the space. They rent the facility to outside groups from March through October and offer swim lessons to siblings of team members year-round. In addition to the exclusive use of Community Pool, DART also rents space at Manor, Arroyo and Civic Pools. The negotiated rental rate for DART is based off 75% of the total utility cost for Community Pool. As is the case with Civic Pool, the City pays the remaining balance of utilities, water, chemicals and staffing, which equated to $75,728 in the 2016-2017 budget year.

Management Contract Discussion

When B*K asked DART why they would want to be responsible for managing all 4 of the City's aquatic facilities the answer was twofold. First and foremost, their program continues to grow/expand and the ability to have additional lane access is important. Second, and maybe equally important, the City plans to increase rental rates for user groups in the Fall of 2017 and in 2018, so a proposed operational contract would allow DART to control their costs and subsequently membership fees.

The City, in the past two years, has had a renewed focus on cost recovery for programs and facilities. As the City and DART are aware, aquatic facilities are some of the most expensive within the parks and recreation industry to operate. The two areas contributing to the bulk of costs within aquatics facilities are utilities (electric, gas and water) and staffing (full-time and part-time). The City has benefited by their geographic location in that all their pools are outdoors, which equates to less utility costs in comparison to year-round indoor aquatic facilities. A challenge for the City and DART is that the State of California has been one of the most aggressive with increasing the minimum wage and pushing towards the $15.00/hour mark. And while pools have become more efficient with their operating systems, the two previously mentioned factors continue to drive up operational costs.

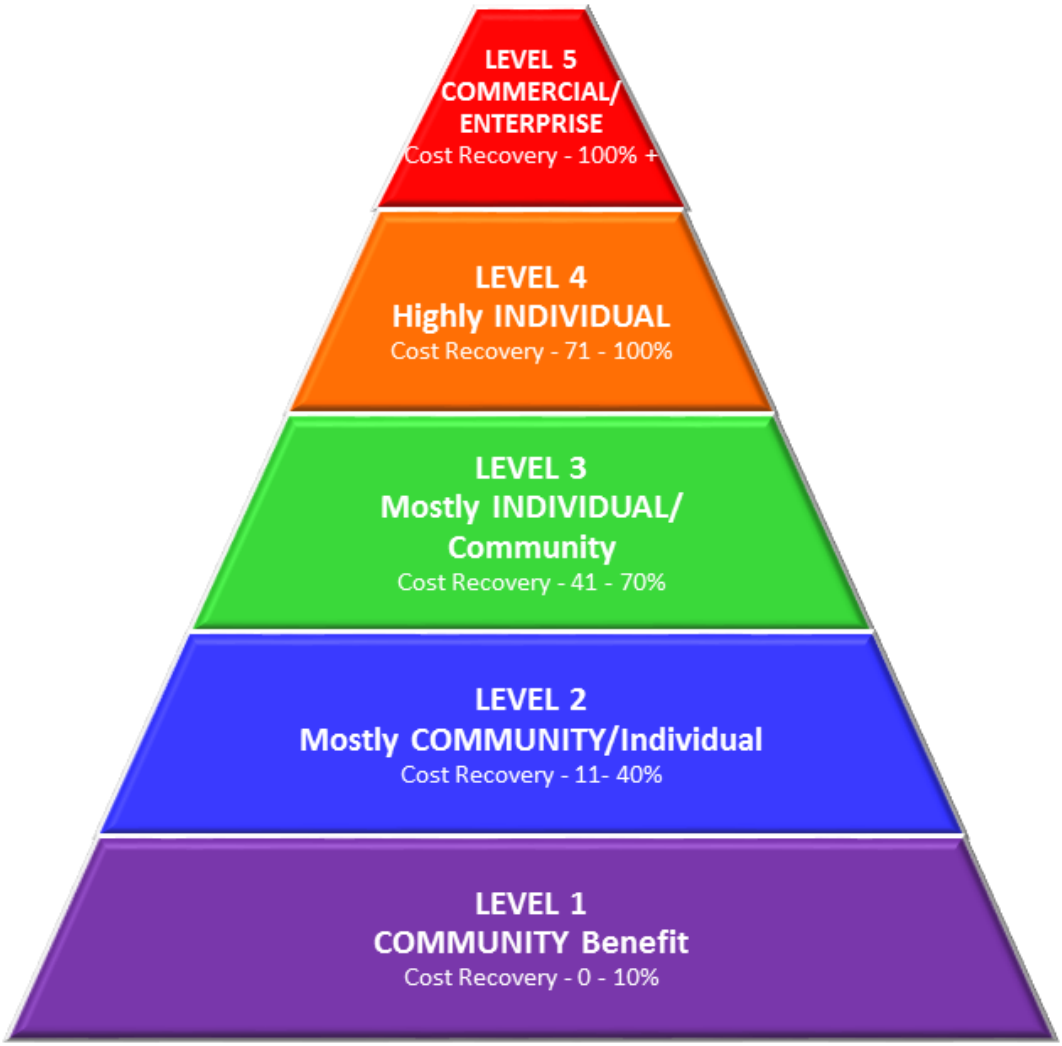
Based on the work that B*K has completed across the country, most "traditional" pools have a cost recovery range between 50-75%. That cost recovery rate can be impacted by the length of the season and the weather associated with said season. Most "non-traditional" pools (leisure pools or municipal waterpark) have a higher cost recovery rate in comparison to traditional pools. However, they also come with a higher operational cost.

When B*K has been asked to evaluate other parks and recreation operations, aquatic and non-aquatic, a key topic of conversation is the program pyramid. The program pyramid describes the activity, access, and degree to which the agency should subsidize the program. The bottom of the pyramid has programs that can be described as grass roots with broad community usage and benefits. For those programs, the goal is maximum participation and minimal costs, and those programs are typically subsidized by the agency. The top of the program pyramid has programs that are competitive with highly individualized (versus community) benefit, do not reach a sizeable portion of the population, and require significant resources.

A program like open swim would fall towards the bottom of the program pyramid. Access to the pools for open swim is not something an agency wants to give away, there is a fee associated with access, but the focus is maximum participation. In contrast, a program like competitive swimming does not reach near the same size of population and is one that is highly specialized and individualized. Due to the specialization and cost associated with offering the appropriate facility and program, an agency is typically unwilling to subsidize such a program. This further

justifies the City's move towards more market-based rate structures for use of pools by competitive groups.

The City has developed their own pricing pyramid with the levels, benefit and cost recovery expectation.



In providing exclusive use to both DAM and DART and not allowing public access to those facilities, the City has decreased the overall expense associated with aquatics. However, it is the opinion of B*K that both programs are being subsidized by the City when you factor the costs associated with utilities, chemicals and maintenance of the facilities. Another factor to consider, especially in the case of DART, is the classification structure of youth sports groups. Because of their classification by the City, DART pays a significantly reduced rental rate for pool time and the fee for nine months out of the year is a flat fee, not one based on usage.

Budget Numbers

For purposes of this report, the City supplied B*K with 16-17 original budget numbers. Using these numbers B*K has developed the following analysis.

Aquatic Revenues – Actual

	Rental	Rec Swim	Inst.	Parties	Concessions	Total
Arroyo	17,621	42,058	64,044	5,555	14,733	144,011
Manor	22,765	80,840	74,251	12,749	14,993	205,598
Civic	85,750					85,750
Community	34,172					34,172
Sub-Total						469,531

Note: It is important to understand that the only revenue associated with the use of Civic and Community Pools come from the usage by DART and DAM.

Aquatic Revenues – Actual

	Swim Pass	Swim Camp	Shade Rentals	
City	82,057	14,279	800	97,136
By Pool Sub Total				469,531
Total Projected Aquatic Revenue				566,667

In analyzing the revenue projections closer, we find the following:

- DART & DAM are the sole sources of revenue for Civic and Community Pools, which accounts for 21.2% of the total revenue in 2016-2017.
- The City does not derive any revenue from DJUSD's use of the City aquatic facilities. They are a high frequency user.
- In summarizing all the rental revenue, $160,308 it equates to 28.3% of the total projected revenue in aquatics.

Projected Lane Hours

	Practice/Wk	Hr/Practice	Lanes	Lanes/Wk	Weeks	Ln Hours
DAM	47	1.0	8	376	50	18,800
DART	16	2.0	8	256	50	12,800
High School	6	2.0	8	96	24	2,304

Project Revenue Based on Lane Hours

$15.00/lane hour	Ln Hours	Rate	Rental
DAM	18,800	$15.00/lane hour	$282,000
DART	12,800	$15.00/lane hour	$192,000
High School	2,304	$15.00/lane hour	$34,560

$12.00/lane hour	Ln Hours	Rate	Rental
DAM	18,800	$12.00/lane hour	$225,600
DART	12,800	$12.00/lane hour	$153,600
High School	2,304	$12.00/lane hour	$27,648

$9.00/lane hour	Ln Hours	Rate	Rental
DAM	18,800	$9.00/lane hour	$169,200
DART	12,800	$9.00/lane hour	$115,200
High School	2,304	$9.00/lane hour	$20,736

It is important to understand that these numbers are based on assumptions by B*K. Those assumptions are as follows:

- DAM offers 47, 1-hour practices per week for 50 weeks per year.
- DART offers 16, 2-hour practices per week for 50 weeks per year.
- The High School offers six, 2 hours practices per week for 24 weeks per year. This also assumes swim team only.

B*K would encourage the City to consider working with the three user groups to determine if this usage data is accurate.

In computing revenue generation projections for $9.00/hour per lane hour, one can use the 2016-2017 projected rental revenues to determine the percentage of which each group is paying.

- DAM, 50.7% of $169,200
- DART, 29.7% of $115,200
- High School, 0.0% of $20,736

B*K is not suggesting that these user groups should have to pay this full-rate immediately. However, when evaluating where competitive swimming falls on the overall program benefit pyramid, it would suggest that DART and the High School should pay more than their current rental rate.

Aquatic Expenses by Pool

	Total Expense	Salary & Wages	Salary & Wage % of Total Exp.	Utilities[12]	Utilities % of Total Exp,
Arroyo	209,736	49,302	23.5%	88,173	42.0%
Manor	201,417	55,011	27.3%	54,611	27.1%
Civic	174,301	49,927	28.6%	51,794	29.7%
Community	110,900	22,589	20.4%	55,052	49.6%
Sub-Total	696,354				

These are expenses associated with keeping the pools operational. In all instances, except for Community Pool, Salary & Wages and Utilities account for more than 50% of the total operational cost per pool. Again, this confirms the information B*K has shared with the City on the largest expenses associated with pool operations.

In evaluating the individual cost associated with Civic and Community Pools, the following statements can be made:

- The City provided a $68,356 subsidy in the 2016-2017 budget for the operation of Civic Pool, with an overall cost recovery of 55%. This was a 2% increase in the facility's actual cost recovery from what was originally budgeted in 2016-2017.
- The City provides a $72,044 subsidy in the 2016-2017 budget for the operation of Community Pool, with an overall cost recovery of 32%. This was an 8% increase in the facility's actual cost recovery from what was originally budgeted in 2016-2017.
- The City provided a $11,310 subsidy in the 2016-20176 budget for DJUSD (swim team and water polo) which takes place at Arroyo Pool if current user fees were applied to actual hours used.

[12] Utilities – Gas and Electric.

In contrast, the following observations are made with regards to the costs associated with Arroyo and Manor Pools:

- The City provides a $199,114 annual subsidy for the maintenance and operation of publicly accessible Arroyo Pool, with an overall cost recovery of 48%. This was a slight decrease of 1% in the facility's actual cost recovery from what was originally budgeted in 2016-2017 and was primarily due to the relocation of morning swim lessons to Manor Pool.
- The City provided a $136,643 annual subsidy for the maintenance and operation of the publicly accessible Manor Pool, with an overall cost recovery of 66%. This was a 12% increase in the facility's actual cost recovery from what was originally budgeted in 2016-2017. **NOTE:** *This significant cost recovery increase was due to several factors including new programming fees that were implemented during the FY 16-17 and programming changes that staff made at Manor Pool during this last season to improve its overall cost recovery.*

If one uses the revenues for the 2016-2017 budget, the City achieved a cost recovery rate of 54.35%, as compared to the original budget of 49% and was able to reduce the anticipated aquatics annual subsidy from $538,314 to only $476,157. Most seasonal and year-around pool operations recovery between 50-75% of total costs. There are variances between agencies and those are typically due to staffing levels and how things like maintenance, full-time staff and capital improvement are allocated across budgets. If the City were to charge the going rate of $15.00/hour/lane, used the lane use projections in this document, and did not factor the $119,922 that DAM and DART paid, it would increase the cost recovery rate to 74.1% for all of aquatics. If the high school swim teams were also paying the base rate of $15.00/hour/lane for their practice time the cost recovery rate would increase to 77.3%.

DART Proposals – Key Questions

DART has provided the City two proposals for consideration. The first is that DART would operate all four of the City's aquatic facilities. The second proposal suggests that the Community Pool facility be eliminated and replaced with a 50M pool that DART operates and programs.

For both proposals, B*K would offer the following questions for consideration by both the City and DART (in no specific order of importance):

- Operating Philosophy

  Will DART operate the City's facilities in a manner that is reflective of how the City currently operates them? Example, what level of lifeguard staff will be available when

the public is using the facility, and will that meet the City or industry standard? Will DART's operation of the facility comply with the State & National Standards for wages and comply with the State Health Department and Model Aquatic Health Code, and other regulatory agencies for operating standards? As earlier referenced, staffing is a significant cost of aquatic facilities expense budgets, sometimes close to 50-60% of the total budget. However, the reduction or elimination of lifeguard staff is neither a responsible or reasonable method by which to achieve a higher cost recovery rate.

- Access

  What type of access will the public have to any/all the facilities? The City currently receives negative feedback from residents relative to their inability to utilize Community Pool. Currently, residents can only access Community Pool is if they are a member of DART. Will that operating philosophy carry over to both Manor and Arroyo? The answer to that question is unclear in the proposal offered by DART. Further, is it the intent of DART to only allow the public to continue to access Arroyo and Manor?

- Pricing

  Will the fee structure associated with access to pools and subsequent programs be determined by the City or by DART? If DART sets the cost of access and programs, there is a strong possibility that those fees will be at market rate to eliminate subsidy and raise cost recovery rates. While a higher cost recovery rate is desirable, in this scenario there is a strong possibility that a portion of the public will not be able to afford access to the facility. If the City negotiates the ability to set rates of both access and programs, there is an equally strong possibility that DART will request a subsidy from the City. In that event the financial benefit of DART operating the pools becomes questionable.

- Capital Investment

  There is no mention of how capital investment will be handled in the proposal to operate. Is this something that the City will be responsible for or will DART shoulder the burden? If the pools remain City facilities operated through a management contract, one would assume that the City will be expected to shoulder that financial burden. As such, the DART proposal does not benefit the City with a reduction in capital expenses.

- Development of New Swimmers

  What plan is in place to develop new swimmers? For the City to invest in a new 50M pool they are merely sustaining the competitive swim programs and not diversifying their offerings to the public. From the market analysis portion of this document,

approximately 50% of swimmers/pool users are infrequent. They would be un-interested in a 50M pool or associated amenities.

Further discussion of these questions in essential in developing a sustainable aquatic operating model. Without understanding these key philosophical questions, it is difficult for B*K to recommend supporting the concept of DART operating all the City's aquatic facilities. Further, if the City wants to decrease the subsidy of aquatics and increase the level of community participation, the development of a 50M pool would not be a responsible manner in which to anticipate achieving those goals. If the City does want to explore the concept of contract management of City pools, B*K would strongly encourage them to undergo a formal RFP process. In said process, outlining operating parameters, pricing structure, capital replacement and the City's expectations for public access will be determining factors in whether the City receives financial benefit from contract operation.

Again, leaning on the experience B*K has working with clients across the country, some of the primary reasons why agencies contract out the management of parks and recreation facilities are:

- Minimize Liability
- Buy-In & Engagement from Youth Sports Organization
- Decrease Subsidy
- Elimination of Associated Hassel/Time/Effort w/ Operation
- Shortage of Staff Expertise

Public agencies typically do not enter into a management contract to maximize participation by the public.

50M Pool Proposal

DART provided a proposal to the City to develop and operate a 50M pool in the Community Pool location.

The cost estimate to develop the pool is approximately $1.7 million for a 150 x 195-foot building which equates to 29,250 square feet or a cost of $58.12 per square foot. B*K is not a construction or architectural firm, but from our work with others the typical starting cost when considering a building with a 15-20-year life span is $150 per square foot. Another item that the City should consider is the optics and community perception of the facility. Regardless if the dollars are raised by DART and others, if the facility is placed in the City's park it will be perceived as a City facility. Does the architectural structure that DART is proposing meet the design and aesthetics standards of the City?

To calculate the cost associated with the 50M pool, operational expenses were gathered from; Charles Brooks, Mission Viejo, Santa Clara, Folsom Aquatic Center, Gauche Park – Yuba City, and Roseville Aquatic Center. This information is valuable to help provide a framework for determining the operational costs associated with a 50M pool. However, B*K would take exception with the method of determining total cost and dividing by the number of gallons. Specifically, three of the facilities have no dollar value for insurance and two do not have dollar values for miscellaneous expenses.

The method of dividing utilities by total gallons would appear to be a more consistent method to determine that one line item as it eliminates the subjectivity of what is included in some of the other categories. If one uses this method, the cost of providing utilities for an outdoor 50M pool is approximately $0.199 per gallon, or $137,907. However, this is only one factor of the total operation. The number of $0.36 per gallon did not appear to consider; part-time staff, full-time staff, contractual staff, janitorial/cleaning supplies, pool chemicals, rental costs, or special services.

Potential Pool Schedule:

Mon-Fri	6:00A-9:00A
	11:00A-2:00P
	4:00-9:00P
Sat	6:00A-3:00P
Sun	6:00A-3:00P

This equates to a total of 80 hours of operation per week. Assuming the entire 50M pool is available during these times it would require 3 lifeguards. Those three lifeguards earning $11.00 per hour and working 50 weeks per year is an additional $136,950 in expense. If B*K was developing such a pro-forma from scratch we would also recommend an assistant manager be present when operating. Three assistant managers working 30 hours per week and earning $13.00 per hour is an additional $58,500 in expense. B*K would suggest that the $249,480 in operational costs is what it would take to turn the pool on and potentially treat it with chemicals, but falls short of illustrating the full costs associated with a year-round operation. B*K is not suggesting that the City not consider a 50M pool; we are simply observing that the operational expense numbers provided do not appear to paint a clear picture.

The other concept that has been discussed is the incorporation of a bubble over at least one of the existing pools at Community Park. In pursuing such a venture, the City needs to consider the following:

Capital Investment:

- Bubble Structure (15-year life span)
- Deck Work to Anchor Bubble Structure
- Connection to Locker Rooms & Potential Complications

- Mechanical Systems for Maintaining Pressure
- HVAC System

On Going Expenditures:

- Lighting Interior of Bubble
- Heating of the Space (potential)
- Set-Up & Take Down
    - In visiting with multiple clients in the mid-West that incorporate bubbles into their operations the cost to set-up and take-down the bubble ranges from $25,000-$40,000 annually.
- Storage of Bubble when Unused

Management Contract Proposal

DART also provided the City with a proposal to run all the City's pool on a management contract. Based on the information that DART shared they feel there are several advantages to their management of the facility, the most compelling being financial sustainability.

Based on the information shard by DART they estimate that the City's annual subsidy of aquatics is approximately $670,000 per year. Using the numbers provided to B*K by the City, the loss in 2016-2017 budget was $544,174. DART is suggesting that they can save the City $200,000 per year and that their subsidy would decrease. It is unclear in DART's proposal how the $470,000 subsidy from the City would be utilized. This is an area where the City May want clarification.

Further, if the City did want to eliminate approximately $200,000 in subsidy, they have that opportunity. Again, as previously referenced, if DART, DAM and the High School swim teams paid $9.00 per hour per lap lane hour, it would generate $185,214 more revenue than current rentals.

B*K would feel more comfortable projecting a decrease in the subsidy of aquatics by the City or by DART, using current facilities, through a multi-step approach:

- Increase fees for programs and decrease instructor costs, thereby increasing profit margin.
- Decreasing total staffing levels (lifeguards).
- Decreasing hours of operation.
- Increasing admission fees and passes.

The concept of keeping pools open longer (past 5:00P) and being able to still decrease the overall operational subsidy doesn't appear to correlate.

B*K does agree that if DART is operating the pools that some of the burden of major repair/replacement should be borne by them. However, there needs to be much more detail to clarify repair and maintenance responsibilities and where it is incumbent upon the City.

The other concept shared in the proposal is increased access to the public. Part of that increased access would be operating beyond 5:00PM, but would this mean that the public would have access to Civic and Community Pools as well? If those pools were available to the public do they meet ADA and Health Department requirements? If they do not, does the $200,000 start up and $100,000 annual investment by DART make that possible?

Like the 50M pool, B*K is not stating that the City should not give this option consideration, but there is a level of detailed information that is missing. To gain that detail, the City would want to undertake a formal RFP process for management services and seek out that information from each proposer.

Future Options

The City does have a few options to consider as they determine the future of aquatics. B*K offers four different scenarios, which are by no means exhaustive, but could stimulate further discussion.

Future Direction Option #1

The City maintains the status quo. While perhaps not a desired outcome, the City is not required to take any action if they choose. They can continue to allow DAM and DART access to their respective facilities and do the minimum to keep them operational. When those facilities fail, and they will in the next 5-10 years without significant capital upgrades, the City is under no obligation to repair them or duplicate them. At which time, the City would not be burdened with the costs associated with Community or Civic Pools and the overall aquatic subsidy would potentially decrease.

It is B*K's opinion, based upon working with clients across the country, that many municipal agencies over-built aquatic facilities in the 1970s and 1980s. In addition to overbuilding them, they built the same rectangular, flat-water pool with minimal entertainment features. The mindset at that time was that every "section" of the community needed their own facility. As the parks and recreation industry evolved, the staffing needs increased and the cost to operate the facilities increased. In contrast, swim lessons moved from free programs to pay to participate.

Swim teams that once only paid for the cost of janitorial staff transitioned to paying market/base rates for practices and competitions.

A result of this over-building is that many agencies through their master plan processes have consolidated aquatic facilities. They have adopted the concept of having larger aquatic facilities that serve all user groups, but less in total number. They have also realigned their focus and build facilities that address the full spectrum of frequent, occasional and infrequent participation.

Future Direction Option #2

The City continues to operate in the current structure. DAM and DART have exclusive use of current facilities and the high school programs continue to use City facilities.

B*K would recommend the following:

It is not reasonable to balance the operational budget solely on the current specialized user groups. If the City were to do so, they could inadvertently limit access to these programs and all involved agree they have value to the community. It is also not typical or reasonable for specialized user groups to have such highly discounted rates for use of City facilities.

B*K would recommend that the City move forward with the new fee structure they have developed, but develop a 5-10-year fee structure agreement with DART. Within that fee structure there should systematic increases in the rental fees the group pays, preferably increasing every-other year. The new fee structure should be based upon lane hour use, year - round and not reflect a flat fee structure. This is not to say that the group should not have unlimited access, but rather the fees they pay should directly correlate to the number of lane hours used. The result should be achieving the fee structure that the City proposes implementing in Fall 2017. B*K would further recommend that DART begin to bear a larger portion of the costs associated with chemicals and maintenance of the facility through re-charges.

In the case of DAM, the City could move closer to charging market rates per hour/lane for the use of Civic Pool. Like DART, DAM should be expected to shoulder a portion of the associated cost of chemicals and maintenance of the facility.

The City could consider re-negotiating the fees that the school district does not pay for use of the pools. Almost all other sports groups are required to do some level of fundraising for their sports. This should also be required of the competitive aquatic programs, with funds going to the ongoing operation of the pools the school district utilizes.

In this situation, the City should continue to provide maintenance support for the facilities and necessary capital improvement. Capital improvement being defined as those repairs necessary to keep the pools functional, until it is no longer cost-effective to operate the facility.

Future Direction Option #3

Since B*K began working on this project there has been conversation about the school district developing their own 50M pool. The following assumptions are based on the concept that the School District would allow DART access to their facilities.

If that were to come to fruition, B*K would recommend the following:

When Community Pool reached the end of its lifecycle, B*K would not recommend replacement. In fact, as soon as the high school's 50M pool became available, B*K would encourage the City to work with the School District to help establish hours that DART could use the facility.

Civic Pool would remain operational, support DAM and continue to support DART when it was not used. Arroyo and Manor Pool would be available for rental for both DART and DAM if needed.

If the City were inclined to add an aquatic facility to Community Park, B*K would strongly urge them to incorporate a leisure pool / community waterpark facility. These facilities, while more expensive to operate than a traditional rectangle pool, appeal to a greater population of swimmers and generate 20-30% more revenue by comparison.

Future Direction Option #4

Both the Civic and Community Pools are aging and quickly reaching the point where replacement needs to be considered. If replacement is considered, B*K would recommend the following approach.

Step #1 would be elimination of Community Pool and move towards re-developing that site as a full-service aquatic center. During that time, while not able to shoulder the full burden, Civic Pool could continue to function as home base for DAM with a reduced schedule. Reduced schedule because that site would need to also absorb as much of DART's use as possible.

Step #2 would be the elimination of Civic Pool once the new facility at Community Park was redeveloped. The use of DAM would then be absorbed by the new aquatic center at Community Park.

If the City were to take this approach B*K would recommend they consider the following amenities in Community Park:

- Leisure Pool / Community Water Park (1 body of water)
  - Zero Depth Entry
  - Multiple Water Slides
  - Play Structure
  - Shallow Water (0-3.5' maximum)
  - Lazy River / Current Channel

    In the market analysis portion of the report swimmers were defined as frequent, occasional and infrequent. It is the opinion of B*K that the current facilities of Arroyo and Manor address the needs of the frequent and high-end occasional visitors, but don't have significant appeal to the low-end occasional and infrequent visitors. While both of those facilities attempt to reach the swimmers interested in the entertainment and social aspects, they fall short. The incorporation of a leisure pool / community water park addresses the needs of close to 50% of the swimming population. The inclusion of this type of water into the City's inventory also efforts the creation of more swimming visitors. Too often agencies duplicate services with the development of new facilities. This merely transplants swimming visits from one location to the other, it does not create new swimming visitors. This amenity would create new swimming visitors and keep a sizeable number of the infrequent visitors in the City.

    This portion of the aquatic center would drive daily admission and annual memberships to the facility, much more than any other body of water within the facility. This pool could be used for swim lessons which is typically a revenue

producing program. Another market that this pool would drive is birthday parties and private rentals. Finally, the lazy river/current channel will have a significant positive impact in that it can be sold for morning water walkers and programmed for group exercise programs.

- Gated Spray Park

  Spray parks are often agencies way of continuing to offer aquatics within a community, but at a lower operational overhead. A spray park would still need filtration, circulation and treatment. However, most, if not all, operate without staffing which as we've discussed is a huge portion of the overall expense of aquatics. In prescribing this facility as a "gated" amenity it would function as an amenity of the aquatic center when the aquatic center was open. When the aquatic center was unavailable to the public a series of gates would be opened/closed and the spray park would be free access to the community. The other benefit of this amenity is an extended season. While the City may choose to only operate the leisure pool / community water park from Memorial Day to Labor Day, the spray park could open on April 1 and remain open through October 31.

- Instructional Pool
  - Stair or Ramp Access
  - 4, 25Y Lap Lanes
  - Shallow Water (4')

  A pool of this nature serves a dual purpose in the overall scheme of the facility. The first purpose is that it becomes the primary location for programming within the facility. This pool could accommodate the following programs; swim lessons (group, private, semi-private), group exercise, inner tube water polo, inner tube basketball, stand-up paddle board yoga, log rolling, underwater hockey, etc. Because of the diversity of the programming and minimal staffing requirements this portion of the facility would generate the bulk of the program revenue within the facility.

  The second purpose is that it can address any overflow need for lap swim and serve as a warm-up, warm-down pool for competition. The use of this body of water as a warm-up, warm-down facility would allow the City to pursue local, regional and some national level events.
- 50M x 25Y Competitive Pool
  - 8 or 10 Lanes in 50M Configuration
  - 16-20 Lanes in 25Y Width
  - 2 Movable Bulkheads

- Adjustable Depth Floor
- Timing System
- Spectator Seating

Currently the City is entrenched in supporting the competitive aquatics community, specifically swimming and water polo and to a lesser degree synchronized swimming. The addition of a 50M x 25Y pool would continue that commitment and consolidate the effort into one primary location. That is not to say that Manor and Arroyo Pools would not be used in this capacity, but the focus would be the use of the proposed 50M pool.

B*K would recommend that this pool be the primary practice location for DAM and DART. B*K would further recommend that the high schools use Manor and Arroyo for practices and the proposed 50M for competition only.

A 50M pool, specifically one with all deep water, is a challenge to program outside of competitive aquatics. Therefore B*K would recommend a movable floor, so that some shallow water can exist for programming; group exercise, some swim lessons, kayak, paddle board, etc.

Given the size of DAM and DART it is possible that they could host a sizeable number of competitions in a calendar year. For DAM it is reasonable to assume that they could host 1-2 regional competitions on an annual basis. For DART it is reasonable to assume that they could host 3-4 local and regional competitions on an annual basis. It is also possible that other outside groups may approach the City to host events at the pool, which could be a consideration.

- Non-Aquatic Amenities
  - Locker Rooms
  - Changing Cabanas
  - Shade Structure
  - Ample Green Space
  - Rentable Cabanas

Operational Realities & Recommendations of Future Direction Option #4

If the City were to pursue this direction, it is a large capital investment in aquatics and an ongoing commitment to subsidizing aquatics within the City. The leisure pool / community water park and instructional pool will carry significantly less subsidy in comparison to the 50M pool. In contrast, the 50M pool, if competitions are held, will have a significant positive economic impact on the community. While many municipalities become enamored with the potential economic impact, it must be remembered that the economic impact does not pay for the operational costs of the facility.

If the City were to move forward in this direction, B*K would recommend that they consider the following with regards to operations:

- Seasons:
  - Leisure Pool / Community Water Park — Memorial Day-Labor Day
  - Gated Spray Park — April-October
  - Instructional Pool — April-October
  - 50M Pool — Year Around

- Management:
  - If the City were to make this level of investment B*K would recommend that they manage the entire facility year-round. This would be a departure from the current operational philosophy as DART operates Community Pool. In this model, both DART and DAM would be user groups and pay rental fees for practice time and meets.

- User Groups & Locations:
  - DART — Primary User, 50M Pool
  - DAM — Primary User, 50M Pool
  - High Schools — Practices @ Arroyo & Manor, Meets @ 50M Pool
  - Water Polo — As Space Allows
  - Synchro — As Space Allows

- Rates:
  - Again, B*K would be a strong proponent of the City working with DART to create a graduated rental rate structure for practices that incorporates them paying the newly generated fees over a 6-10-year span.
  - In contrast, B*K would recommend that any aquatic competition that takes place at the proposed aquatic center should pay the going market rate for exclusive use of the 50M pool. If the competition requires the instructional pool that should be market rate as well. If the renting groups requests that the leisure pool /

community water park not be available to the public, there should be a rate structure for exclusive use of the entire facility to deter that from occurring.

If the City does move forward with the development of a new aquatic center that serves the needs of DAM and/or DART, they should be involved with the process. In conversation with representatives from DAM and DART there are individuals within both organizations that are willing to provide financial contributions to the effort of a new aquatic center. Prior to accepting those contributions, B*K would encourage the City to understand all parameters associated with the contribution. Too often contributions from special interest groups are then tied back to reduced rental fees, or no rental fees at all. The contributions are meaningful and potentially vital to the success of the project. However, the long-term gain of the facility, could equate to an increased operational subsidy because of the impaired ability to charge for services.

A concept that B*K has seen be successful for groups that want to donate money to an aquatic project is the creation of an endowment. While it goes without saying that building a facility is much sexier than creating an endowment, the endowment can be ear marked to help offset subsidies and fund future capital improvement of the aquatic center. By creating an endowment, the special interest groups become vested in the initial and long-term success of the project.

Appendix A – Demographic Detail

Population Distribution by Age: Utilizing census information for the Primary Service Area, the following comparisons are possible.

Table A – 2016 Primary Service Area Age Distribution
(ESRI estimates)

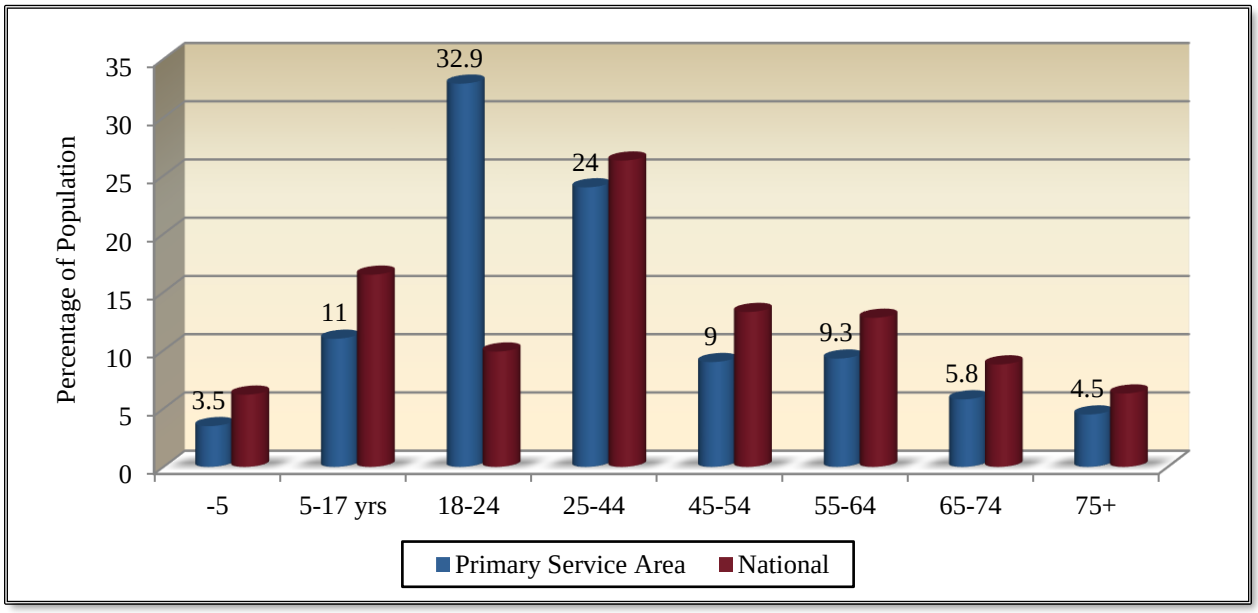
Ages	Population	% of Total	Nat'l Population	Difference
-5	2,710	3.5%	6.2%	-2.7%
5-17	8,409	11.0%	16.5%	-5.5%
18-24	25,134	32.9%	9.9%	+23.0%
25-44	18,267	24.0%	26.3%	-2.3%
45-54	6,836	9.0%	13.3%	-4.3%
55-64	7,056	9.3%	12.8%	-3.5%
65-74	4,429	5.8%	8.8%	-3.0%
75+	3,339	4.5%	6.3%	-1.8%

Population: 2016 census estimates in the different age groups in the Primary Service Area.
% of Total: Percentage of the Primary Service Area/population in the age group.
National Population: Percentage of the national population in the age group.
Difference: Percentage difference between the Primary Service Area population and the national population.

The green and red highlight indicate the difference in percentage; green being greater than the national number and red being less than the national number. It is important to note that swimming as an activity is one that spans all age categories. A significant differentiator in use by various age categories is water temperature and attractions at the pool.

*Note: The reason that B*K provides the national comparison is to illustrate the differences within the community between the national number.*

Chart A – 2016 Primary Service Area Age Group Distribution



The demographic makeup of the Primary Service Area, when compared to the characteristics of the national population, indicates that there are some differences with an equal or larger population in the 18-24 age groups and a smaller population in the -5, 5-17, 25-44, 45-54, 55-64, 65-74 and 75+ age groups. The largest positive variance is in the 18-24 age group with +23.0%, while the greatest negative variance is in the 5-17 age group with -5.5%.

An age distribution like that of the Primary Service Area is typical of a community where there is a large college or university.

Population Distribution Comparison by Age: Utilizing census information from the Primary Service Area, the following comparisons are possible.

Table B – 2016 Primary Service Area Population Estimates
(U.S. Census Information and ESRI)

Ages	2010 Census	2016 Projection	2021 Projection	Percent Change	Percent Change Nat'l
-5	2,732	2,710	2,879	+5.4%	+1.9%
5-17	8,948	8,409	8,057	-10.0%	+0.5%
18-24	26,242	25,134	24,353	-7.2%	+0.4%
25-44	16,404	18,267	20,568	+25.4%	+9.6%
45-54	7,275	6,836	6,450	-11.3%	-8.8%
55-64	6,483	7,056	7,125	+9.9%	+18.2%
65-74	3,333	4,429	5,420	+62.6%	+56.2%
75+	2,904	3,339	4,097	+41.1%	+27.1%

Chart B – Primary Service Area Population Growth

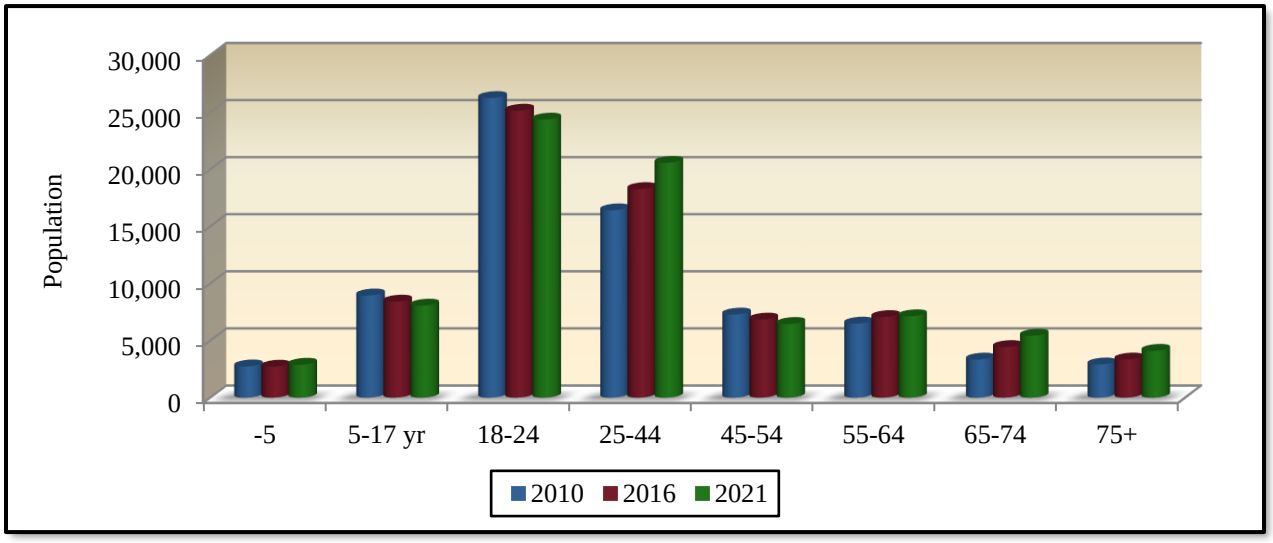


Table B illustrates the growth or decline in age group numbers from the 2010 census until the year 2021. It is projected that over half of all age groups will experience an increase, while 5-17, 18-24 and 45-54 will experience a decrease. The population of the United States is aging and it is not unusual to find negative growth numbers in the younger age groups and significant net gains in the 45 plus age groupings in communities which are relatively stable in their population numbers.

Ethnicity and Race: Below is listed the distribution of the population by ethnicity and race for the Primary Service Area for 2016 population projections. Those numbers were developed from 2010 Census Data.

Table C – Primary Service Area Ethnic Population and Median Age 2016
(Source – U.S. Census Bureau and ESRI)

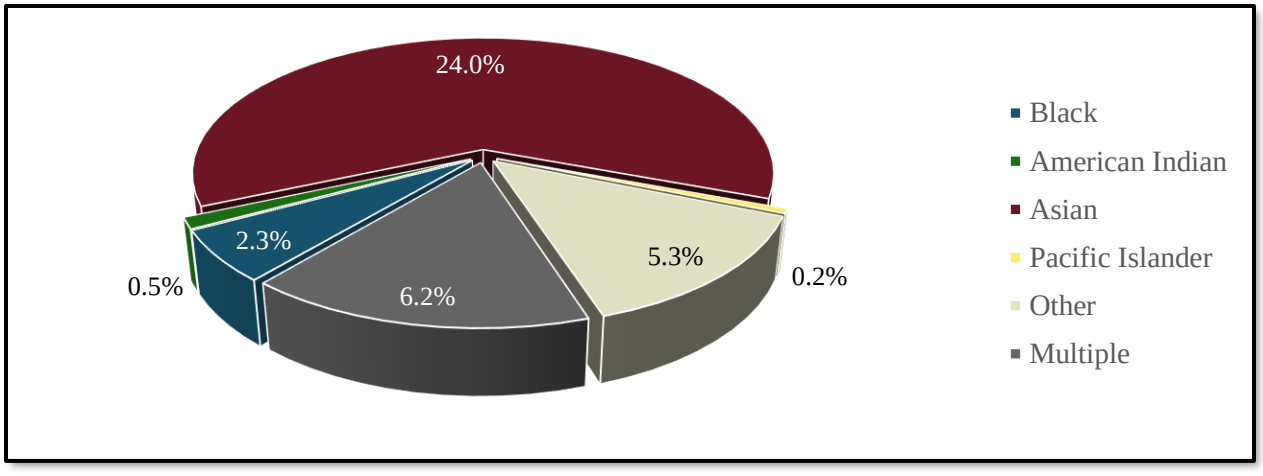
Ethnicity	Total Population	Median Age	% of Population	% of CA Population
Hispanic	10,376	23.5	13.6%	39.4%

Table D – Primary Service Area Population by Race and Median Age 2016
(Source – U.S. Census Bureau and ESRI)

Race	Total Population	Median Age	% of Population	% of CA Population
White	46,842	31.7	61.5%	55.5%
Black	1,787	24.8	2.3%	5.9%
American Indian	369	28.8	0.5%	1.0%
Asian	18,256	23.5	24.0%	14.2%
Pacific Islander	141	26.9	0.2%	0.4%
Other	4,060	23.3	5.3%	17.8%
Multiple	4,725	21.4	6.2%	5.2%

2016 Primary Service Area Total Population: 76,180 Residents

Chart C – 2016 Primary Service Area Non-White Population by Race



Tapestry Segmentation

Tapestry segmentation represents the 4th generation of market segmentation systems that began 30 years ago. The 67-segment Tapestry Segmentation system classifies U.S. neighborhoods based on their socioeconomic and demographic compositions. While the demographic landscape of the U.S. has changed significantly since the 2000 Census, the tapestry segmentation has remained stable as neighborhoods have evolved.

The value of including this information for the Service Areas is that it allows the organization to understand better the consumers/constituents in their service areas and supply them with the desired products and services.

The Tapestry segmentation system classifies U.S. neighborhoods into 65 individual market segments. More than 60 attributes including; income, employment, home value, housing types, education, household composition, age and other key determinates of consumer behavior are used to identify neighborhoods.

The following pages and tables outline the top 5 tapestry segments in each of the service areas and provides a brief description of each. This information combined with the key indicators and demographic analysis of each service area can help further describe the markets that the Primary and Primary Service Areas looks to serve with programs, services, and special events.

For comparison purposes, the following are the top 10 Tapestry segments, along with percentage in the United States. The Primary Service may or may not reflect these segments:

1. Green Acres (6A)	3.2%
2. Southern Satellites (10A)	3.2%
3. Savvy Suburbanites (1D)	3.0%
4. Salt of the Earth (6B)	2.9%
5. Soccer Moms (4A)	2.8%
	15.1%
6. Middleburg (4C)	2.8%
7. Midlife Constants (5E)	2.5%
8. Comfortable Empty Nesters (5A)	2.5%
9. Heartland Communities (6F)	2.4%
10. Old and Newcomers (8F)	2.3%
	12.5%

Table E – Primary Service Area Tapestry Segment Comparison
(ESRI estimates)

	Primary Service Area			
	Percent	Cumulative Percent	Median Age	Median HH Income
College Towns (14B)	36.0%	36.0%	24.3	$28,000
Dorms to Diplomas (14C)	15.0%	51.0%	21.5	$17,000
Urban Chic (2A)	9.5%	60.5%	42.6	$98,000
Enterprising Professionals (2D)	9.4%	69.9%	34.8	$77,000
Exurbanites (1E)	7.0%	76.9%	29.6	$98,000

College Towns (14B) – About half the residents of this segment are enrolled in college, while the rest work for a college or the services that support it. This digitally engaged group uses computers and cell phones for all aspects of life including shopping, school work, news, social media and entertainment. There is a significant Black (12.0%) population. Popular activities include; backpacking, Pilates, and Frisbee.

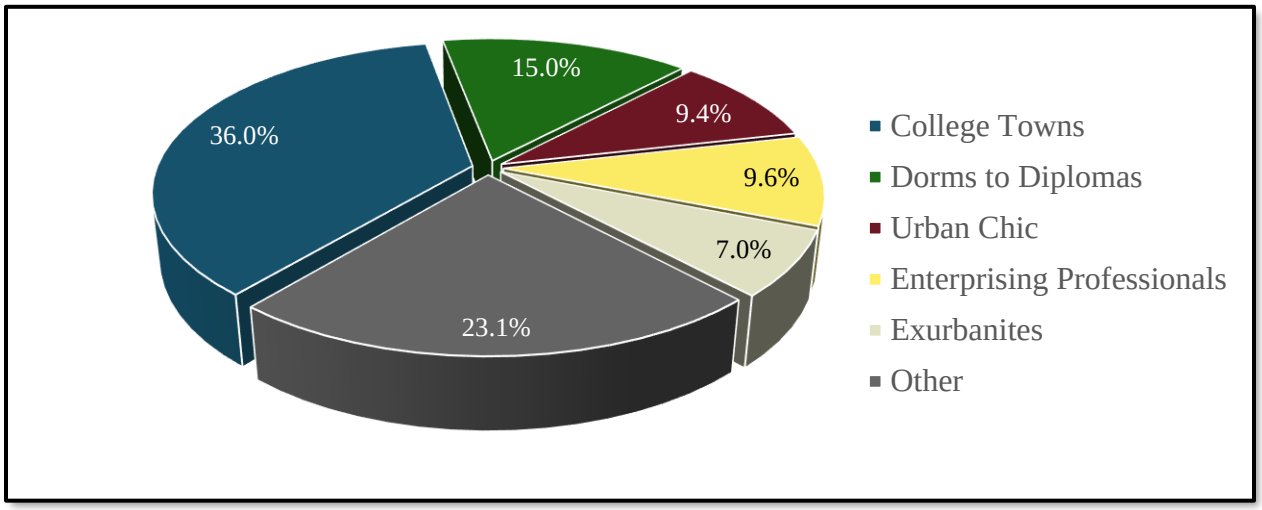
Dorms to Diplomas (14C) – On their own for the first time, these residents are just learning about finance and cooking. Although school and part-time work take up many hours of the day, the remainder is usually filled with socializing and having fun with friends. There is a significant Asian (11.0%) population. They're very active, participating in many sports, especially yoga.

Urban Chic (2A) – These residents are professionals that live a sophisticated, exclusive lifestyle. These are busy, well-connected, and well-educated consumers. In their downtime, enjoy activities such as skiing, yoga, hiking and tennis.

Enterprising Professionals (2D) – These residents are well educated and climbing the ladder in science, technology, engineering and mathematics occupations. They change jobs often and therefore choose to live in condos, town homes or apartments. There is a significant Hispanic (14.5%), Asian (20.8%), and Black (12.0%) population. Leisure activities include gambling, trips to museums and the beach.

Exurbanites (1E) –These residents are approaching retirement but showing few signs of slowing down. They are active in their communities, generous in their donations and seasoned travelers. They are active supporters of the arts and public television/radio.

Chart D – 2016 Primary Service Area Tapestry Segments



Trends & Providers

Recreation Activity and Facility Trends: There continues to be very strong growth in the number of people participating in recreation and leisure activities. The Physical Activity Council in its 2013 study indicated that 33% of Americans (age 6 and older) are active to a healthy level. However, the study also indicated that 28% of Americans were inactive. It is estimated that one in five Americans over the age of six participates in some form of fitness related activity at least once a week. American Sports Data, Inc. reported that membership in U.S. health clubs has increased by 10.8% from 2009 to 2010, and memberships in health clubs reached an all-time high of 50.2 million in 2010. Statistics also indicate that approximately 12 out of every 100 people of the U.S. population (or 12%) belong to a health club. On the other side, most public recreation centers attract between 20% and 30% of a market area (more than once) during a year. All of this indicates the relative strength of a market for a community recreation facility. However, despite these increases the American population continues to lead a rather sedentary life with an average of 25% of people across the country reporting that they engage in no physical activity (per The Center for Disease Control).

One of the areas of greatest participant growth over the last 10 years is in fitness related activities such as exercise with equipment, aerobic exercise and group cycling. This is also the most volatile area of growth with specific interest areas soaring in popularity for a couple of years only to be replaced by a new activity for the coming years. Also, showing particularly strong growth numbers are ice hockey and running/jogging while swimming participation remains consistently high despite recent drops in overall numbers. It is significant that many of the activities that can take place in an indoor recreation setting are ranked in the top fifteen in overall participation by the National Sporting Goods Association.

Due to the increasing recreational demands, there has been a shortage in most communities of the following spaces:

- Gymnasiums
- Pools (especially leisure pools)
- Weight/cardiovascular equipment areas
- Indoor running/walking tracks
- Meeting/multipurpose (general program) space
- Senior's program space
- Pre-school and youth space
- Teen use areas
- Fieldhouses (indoor turf or athletic performance areas)

Thus, many communities have attempted to include these amenities in public community recreation facilities. With the growth in youth sports and the high demand for school gyms, most

communities are experiencing an acute lack of gymnasium space. Weight/cardiovascular space is also in high demand and provides a facility with the potential to generate significant revenues.

The success of most recreation departments is dependent on meeting the recreational needs of a variety of individuals. The fastest growing segment of society is the senior population and meeting the needs of this group is especially important now and will only grow more so in the coming years. Indoor walking tracks, exercise areas, pools and classroom spaces are important to this age group. Marketing to the younger more active senior (usually age 55-70) is paramount, as this age group has the free time available to participate in leisure activities, the desire to remain fit, and more importantly the disposable income to pay for such services.

Youth programming has always been a cornerstone for recreation services and will continue to be so with an increased emphasis on teen needs and providing a deterrent to juvenile crime. With a continuing increase in single parent households and two working parent families, the needs of school age children for before and after school child care continues to grow as does the need for preschool programming.

As more and more communities attempt to develop community recreation facilities the issues of competition with other providers in the market area have inevitably been raised. The loudest objections have come from the private health club market and their industry voice, International Health, Racquet and Sportsclub Association (IHRSA). The private sector has vigorously contended that public facilities unfairly compete with them in the market and have spent considerable resources attempting to derail public projects. However, the reality is that in most markets where public community recreation centers have been built, the private sector has not been adversely affected and in fact in many cases has continued to grow. This is due in large part to the fact that public and private providers serve markedly different markets. One of the other issues of competition comes from the non-profit sector (primarily YMCA's but also Jewish Community Center's, and others), where the market is much closer to that of the public providers. While not as vociferous as the private providers, the non-profits have also often expressed concern over public community recreation centers. What has resulted from this is a strong growth in the number of partnerships that have occurred between the public and non-profit sector in an attempt to bring the best recreation amenities to a community.

Aquatic Participation Trends: Swimming is one of the most popular sports and leisure activities, meaning that there is a significant market for aquatic pursuits. Approximately 13.8% of the population in the Pacific region of the country participates in aquatic activities. This is a significant segment of the population.

Despite the recent emphasis on recreational swimming the more traditional aspects of aquatics (including swim teams, instruction and aqua fitness) remain as an important part of most aquatic centers. The life safety issues associated with teaching children how to swim is a critical concern in most communities and competitive swim team programs through USA Swimming, high schools, masters, and other community based organizations continue to be important. Aqua fitness, from aqua exercise to lap swimming, has enjoyed strong growth during the last ten years with the realization of the benefits of water-based exercise.

A competitive pool allows for a variety of aquatic activities to take place simultaneously and can handle aqua exercise classes, learn to swim programs as well competitive swim training and meets (short course and possibly long course). In communities where there are several competitive swim programs, utilizing a pool with 8 lanes or more is usually important. A competitive pool that is designed for hosting meets will allow a community to build a more regional or even national identity as a site for competitive swimming. However, consideration should be given to understanding that regional and national swim meets are difficult to obtain on a regular basis, take a considerable amount of time, effort and money to run; can be disruptive to regular local user groups and can be financial losers for the facility itself. On the other side, such events can provide a strong economic stimulus to the overall community.

Competitive diving is an activity that is often found in connection with competitive swimming. Most high school and regional diving competition centers on the 1-meter board with some 3-meter events (non-high school). The competitive diving market, unlike swimming, is usually very small (usually 10% to 20% the size of the competitive swim market) and has been decreasing steadily over the last ten years or more. Thus, many states have or are considering the elimination of diving as a part of high school swimming. Diving programs have been more viable in markets with larger populations and where there are coaches with strong diving reputations. Moving from springboard diving to platform (5 meter and 10 meter, and sometimes 3 and 7.5 meters), the market for divers drops even more while the cost of construction with deeper pool depths and higher dive towers becomes significantly larger. Platform diving is usually only a competitive event in regional and national diving competitions. As a result, the need for inclusion of diving platforms in a competitive aquatic facility needs to be carefully studied to determine the true economic feasibility of such an amenity.

There are a couple of other aquatic sports that often compete for pool time at competitive aquatic centers. However, their competition base and number of participants is relatively small. Water polo is a sport that continues to be reasonably popular on the west coast but is not nearly as strong in Washington and uses a space of 25 yards or meters by 45-66 feet wide (the basic size of an 8 lane, 25-yard pool). However, a minimum depth of 6 foot 6 inches is required which is often difficult to find in more community based facilities. The sport of synchronized swimming also utilizes aquatic

facilities and requires deeper water of 7-8 feet. This also makes the use of some community pools difficult.

Without doubt the most significant trend in aquatics is the leisure pool concept. This idea of incorporating slides, lazy rivers (or current channels), fountains, zero depth entry and other water and play features into a pool's design has proved to be extremely popular for the recreational user. The age of the conventional pool in most recreational settings has greatly diminished. Leisure pools appeal to the younger kids (who are the largest segment of the population that swims) and to families. These types of facilities can and do attract and draw larger crowds and people tend to come from a further distance and stay longer to utilize such pools. This all translates into the potential to sell more admissions and increase revenues. It is estimated conservatively that a leisure pool can generate up to 30% more revenue than a comparable conventional pool and the cost of operation while being higher, has been offset through increased revenues. Patrons also seem willing to pay a higher user fee with this type of pool that is in a park like setting, versus a conventional/traditional aquatics facility.

Another trend that is growing more popular in the aquatic's field is the development of a raised temperature therapy pool for relaxation, socialization, and rehabilitation. This has been effective in bringing in swimmers who are looking for a different experience and non-swimmers who want the advantages of warm water in a different setting. The development of natural landscapes has enhanced this type of amenity and created a pleasant atmosphere for adult socialization.

The multi-function indoor aquatic center concept of delivering aquatics services continues to grow in acceptance with the idea of providing for a variety of aquatics activities and programs in an open design setting that features an abundance of natural light, interactive play features and access to an outdoor sun deck. The placing of traditional instructional/competitive pools, with shallow depth/interactive leisure pools and therapy water, in the same facility has been well received in the market. This concept has proven to be financially successful by centralizing pool operations for recreation service providers and through increased generation of revenues from patrons willing to pay for an aquatics experience that is new and exciting. Indoor aquatic centers have been instrumental in developing a true family appeal for community-based facilities. The keys to success for this type of center revolve around the incorporation of intergenerational use in a quality facility that has an exciting and vibrant feel in an outdoor like atmosphere.

Also changing is the orientation of aquatic centers from stand-alone facilities that only have aquatic features to more of a full-service recreation center that has fitness, sports and community based amenities. This change has allowed for a better rate of cost recovery and stronger rates of use of the aquatic portion of the facility as well as the other "dry side" amenities.

Aquatic Facilities Market Orientation: Based on the market information, the existing pools, and typical aquatic needs within a community, there are specific market areas that could be addressed with any aquatic facility. These include:

1. **Leisure/recreation aquatic activities** - This includes a variety of activities found at leisure pools with zero depth entry, warm water, play apparatus, slides, seating areas and deck space. These are often combined with other non-aquatic areas such as concessions and birthday party or other group event areas.

2. **Instructional programming** – The primary emphasis is on teaching swimming and lifesaving skills to many different age groups. These activities have traditionally taken place in more conventional pool configurations but should not be confined to just these spaces. Reasonably warm water, shallow depth with deeper water (4 ft. or more), and open expanses of water are necessary for instructional activities. Easy pool access, a viewing area for parents, and deck space for instructors is also crucial.

3. **Fitness programming** – These types of activities continue to grow in popularity among a large segment of the population. From aqua exercise classes, to lap swimming times, these programs take place in more traditional settings that have lap lanes and large open expanses of water available at a 3 1/2 to 5 ft. depth.

4. **Therapy** – A growing market segment for many aquatic centers is the use of warm, shallow water for therapy and rehabilitation purposes. Many of these services are offered by medically based organizations that partner with the center for this purpose.

5. **Social/relaxation** - The appeal of using an aquatics area for relaxation has become a primary focus of many aquatic facilities. This concept has been very effective in drawing non-swimmers to aquatic facilities and expanding the market beyond the traditional swimming boundaries. The use of natural landscapes and creative pool designs that integrate the social elements with swimming activities has been most effective in reaching this market segment.

6. **Special events/rentals** - There is a market for special events including kid's birthday parties, corporate events, community organization functions, and general rentals to outside groups. The development of this market will aid in the generation of additional revenues and these events/rentals can often be planned for after or before regular hours or during slow use times. It is important that special events or rentals not adversely affect daily operations or overall center use.

Specific market segments include:

1. **Families** – Within this market, an orientation towards family activities is essential. The ability to have family members of different ages participate in a fun and vibrant facility is essential.

2. **Pre-school children** – The needs of pre-school age children need to be met with very shallow or zero depth water which is warm and has play apparatus designed for their use. Interactive programming involving parents and toddlers can also be conducted in more traditional aquatic areas as well.

3. **School age youth** – A major focus of most pools is to meet the needs of this age group from recreational swimming to competitive aquatics. The leisure components such as slides, fountains, lazy rivers and zero depth will help to bring these individuals to the pool on a regular basis for drop-in recreational swimming. The lap lanes provide the opportunity and space necessary for instructional programs and aquatic team use.

4. **Teens** – Another aspect of many pools is meeting the needs of the teenage population. Serving the needs of this age group will require leisure pool amenities that will keep their interest (slides) as well as the designation of certain "teen" times of use.

5. **Adults** – This age group has a variety of needs from aquatic exercise classes to lap swimming, triathlon training and competitive swimming through the master's program.

6. **Seniors** – As the population of the United States and the service area continues to age, meeting the needs of an older senior population will be essential. A more active and physically oriented senior is now demanding services to ensure their continued health. Aqua exercise, lap swimming, therapeutic conditioning and even learn to swim classes have proven to be popular with this age group.

7. **Special needs population** – This is a secondary market, but with the A.D.A. requirements and the existence of shallow warm water and other components, the amenities are present to develop programs for this population segment. Association with a hospital and other therapeutic and social service agencies will be necessary to effectively reach this market.

8. **Special interest groups** – These include swim teams (and other aquatic teams), school district teams, day care centers and social service organizations. While the needs of these groups can be great, their demands on an aquatics center can often be incompatible with the overall mission of the facility. Care must be taken to ensure that special interest groups are not allowed to dictate use patterns for the center, so that the greater community needs may be met.

With adequate pools and strong utilization of the aquatics area, it is possible to meet most of the varied market orientations as outlined above.

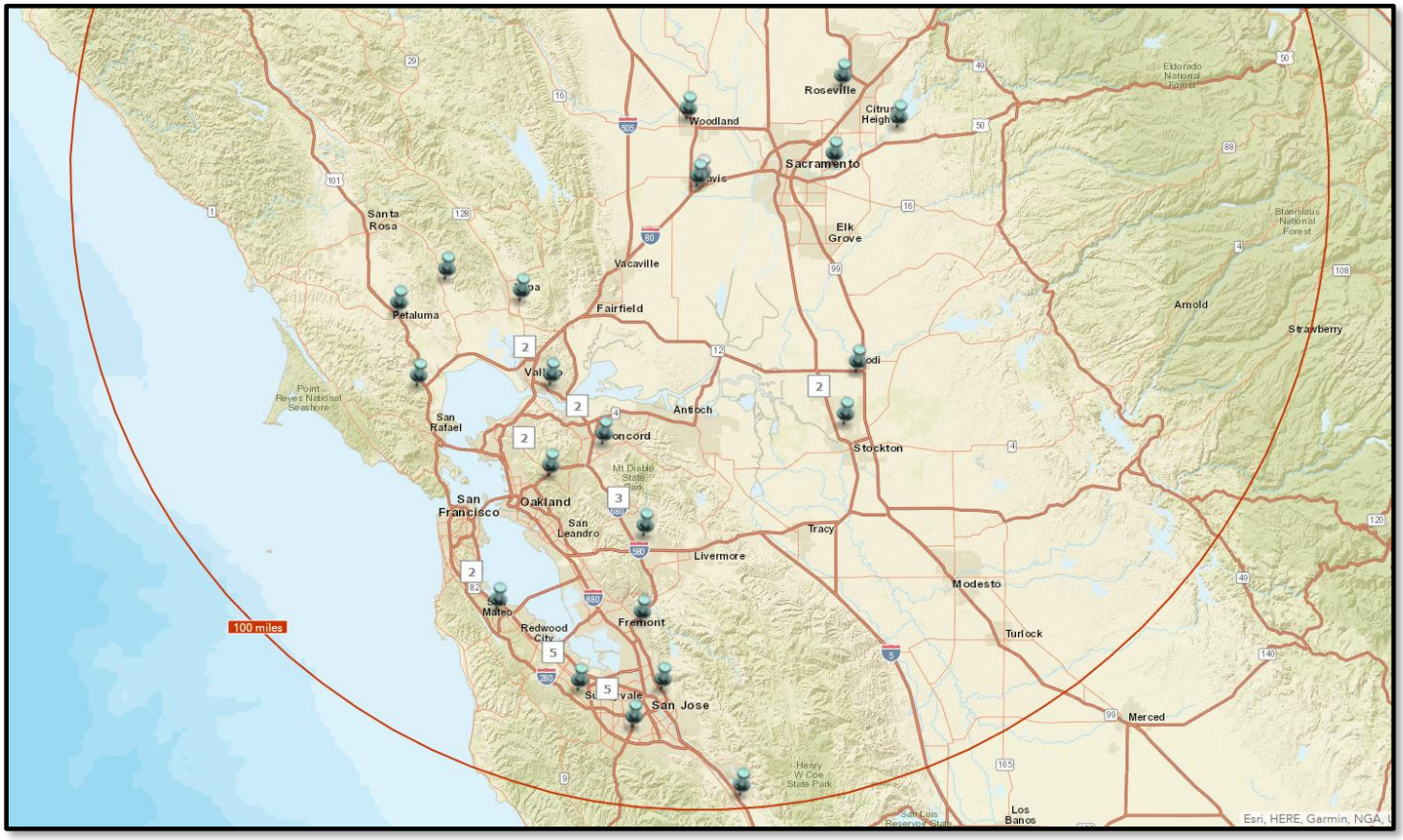
Alternative Service Providers

While on-site, B*K visited the City of Davis aquatic facilities along with both pools at University of California-Davis. Based upon B*K's knowledge of the area and completing similar projects, we could identify over thirty-five 50M pools within a 100-mile radius from the City of Davis. B*K identified a 100-mile radius as that distance, as this is what is typical for a regional draw of such an amenity. Dependent upon geographic location in the U.S., there can be many such facilities within the area or zero. The proliferation of 50M pools in this area can be accounted for due to a strong competitive swim community and the operating expenses associated with an outdoor 50M pool are less than of an indoor 50M pool.

It is also important to note the list was developed using a website that B*K accesses for identification of pools and places to swim. As such, this list should not be viewed as definitive, but rather representative. It should also be noted that not ALL the identified facilities allow for public access. However, even those facilities that are not public access did denote participation by competitive aquatics of some variety.

As illustrated by the map on the following page, the bulk of the 50M pools are southwest of the City of Davis in the Bay-Area. The population concentration in that area is significantly greater than that of the City of Davis. B*K only identified 50M pools within the 100-mile radius, because the development of a 50M pool at the City Park Pool location has been a topic of discussion.

Map – A Alternative Service Providers



50M Pools Identified on Map D (in no particular order):

Public Access Facilities:

- Charles Brooks Community Swim Center – City of Woodland
- Folsom Aquatic Center – City of Folsom
- James Lemos Swim Center – City of Benicia
- John F. Cunningham Aquatic Complex – Greater Vallejo Recreation District
- Roseville Aquatics Complex – City of Roseville
- Petaluma Swim Center – City of Petaluma
- Morgan Hills Aquatic Center – City of Morgan Hills
    - Frank Fiscalini International Swim Center
- Concord Community Pool
- Dolores Bengston Aquatic Center – City of Pleasanton
- Dougherty Valley Aquatic Center – City of San Ramon
- Clark Memorial Swim Center – City of Walnut Creek

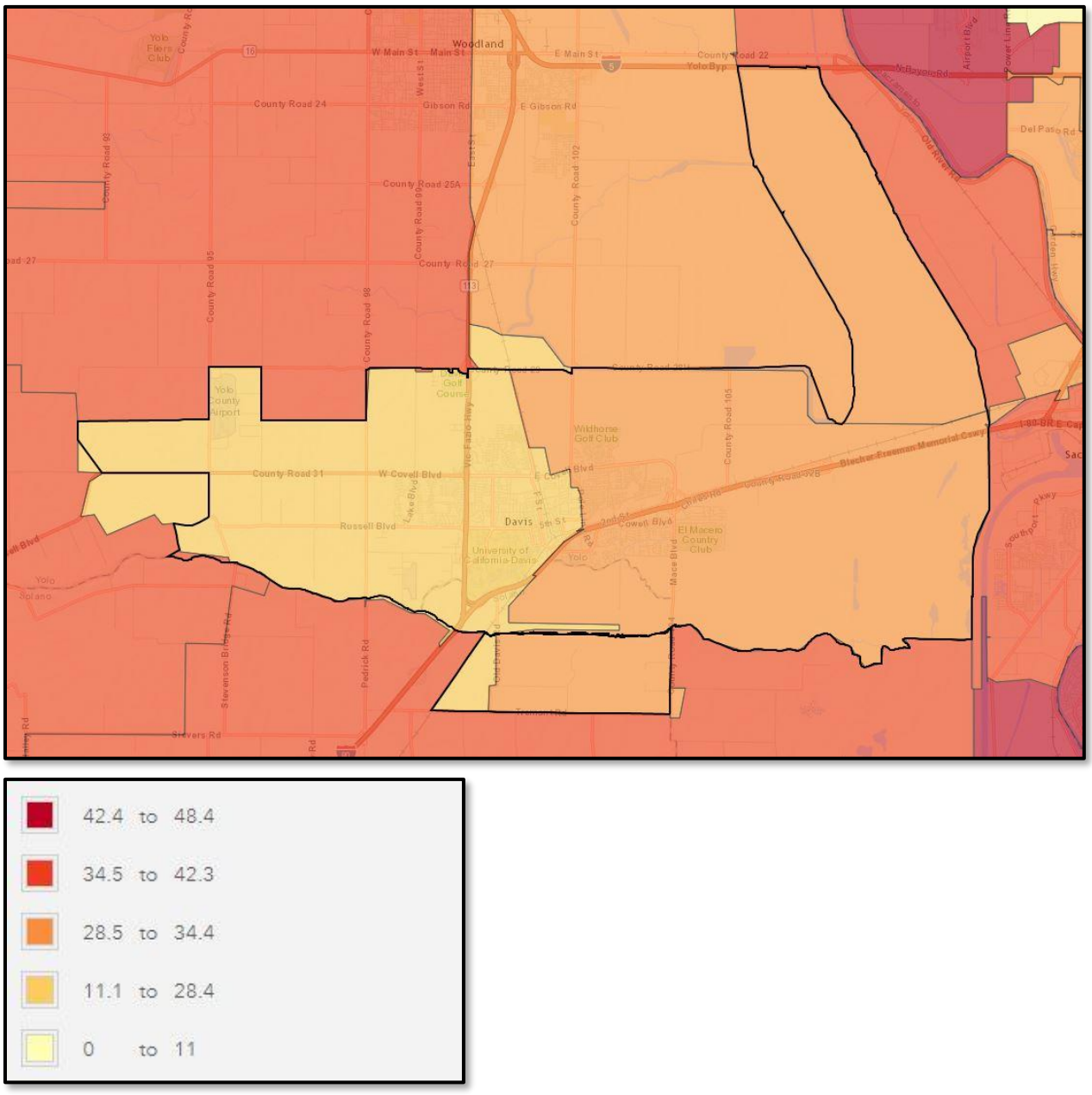
Private, or Limited-Public Access, Facilities:

- Schaal Aquatic Center, UC Davis
- Arden Hills Resort Club & Spa
- Napa Valley College Swimming Pool
- Sonoma Aquatic Club
- College of Marin Indian Valley Campus Swimming Pool
- Burlingame Aquatic Center @ Burlingame High School
- San Mateo Athletic Club & Aquatic Center – College of San Mateo
- De Anza College Pool
- Foothill College Pool
- Fremont Hills Country Club
- Los Gatos High School / LGHS Community Aquatic Center
- Avery Aquatic Center – Stanford University
- Saratoga High School Swimming Pool
- Sunnyvale Swim Complex @ Fremont High School
- University of California-Berkley
- Ohlone College Pool
- Tokay High School
- June Fergusson Pool – San Joaquin Delta College
- Chris Kjeldsen Pool – University of the Pacific
- Soda Aquatic Center

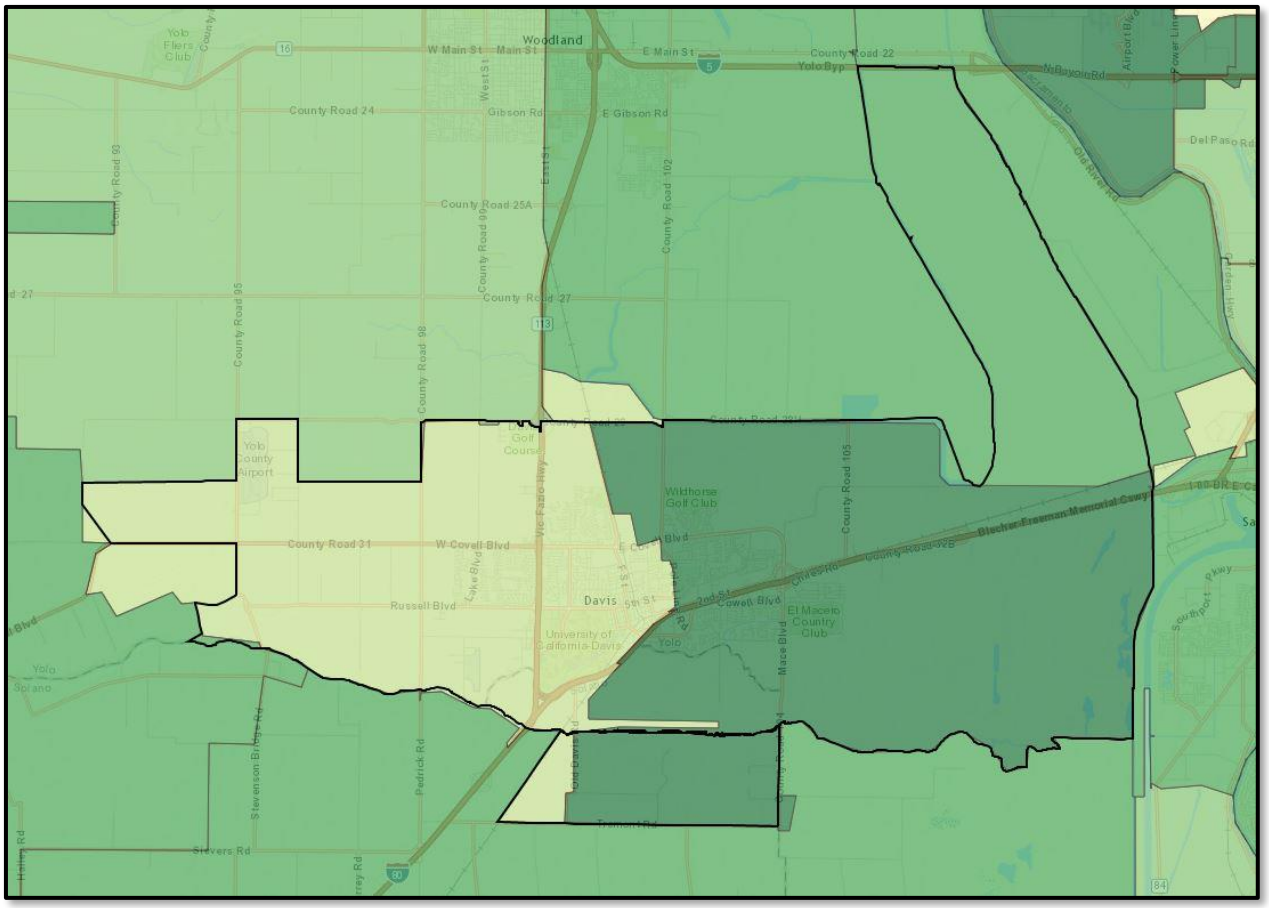
Note: While not identified on the map there are two pools under construction in Natomas and Tracy.

Appendix B – Thematic Mapping

Map A – Median Age by Zip Code

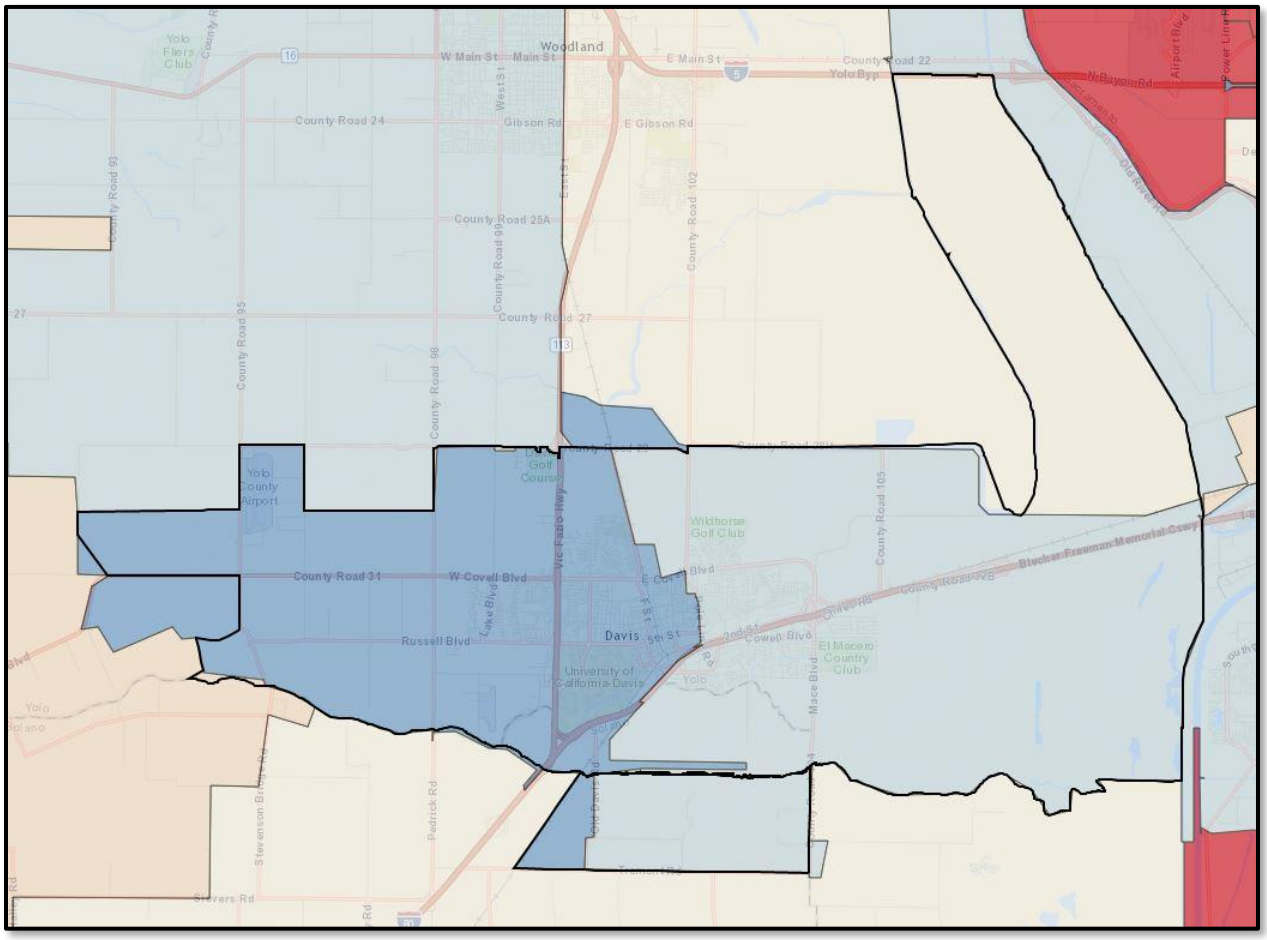


Map B – Median Household Income by Zip Code



$75,428	to $91,057
$60,564	to $75,427
$46,854	to $60,563
$15,456	to $46,853
$0	to $15,455

Map C – Entertainment & Recreation Spending Potential Index by Zip Code



The map depicts the Spending Potential Index for all Entertainment & Recreation Services.

Map D – Adult Swimming Participation MPI by Zip Code