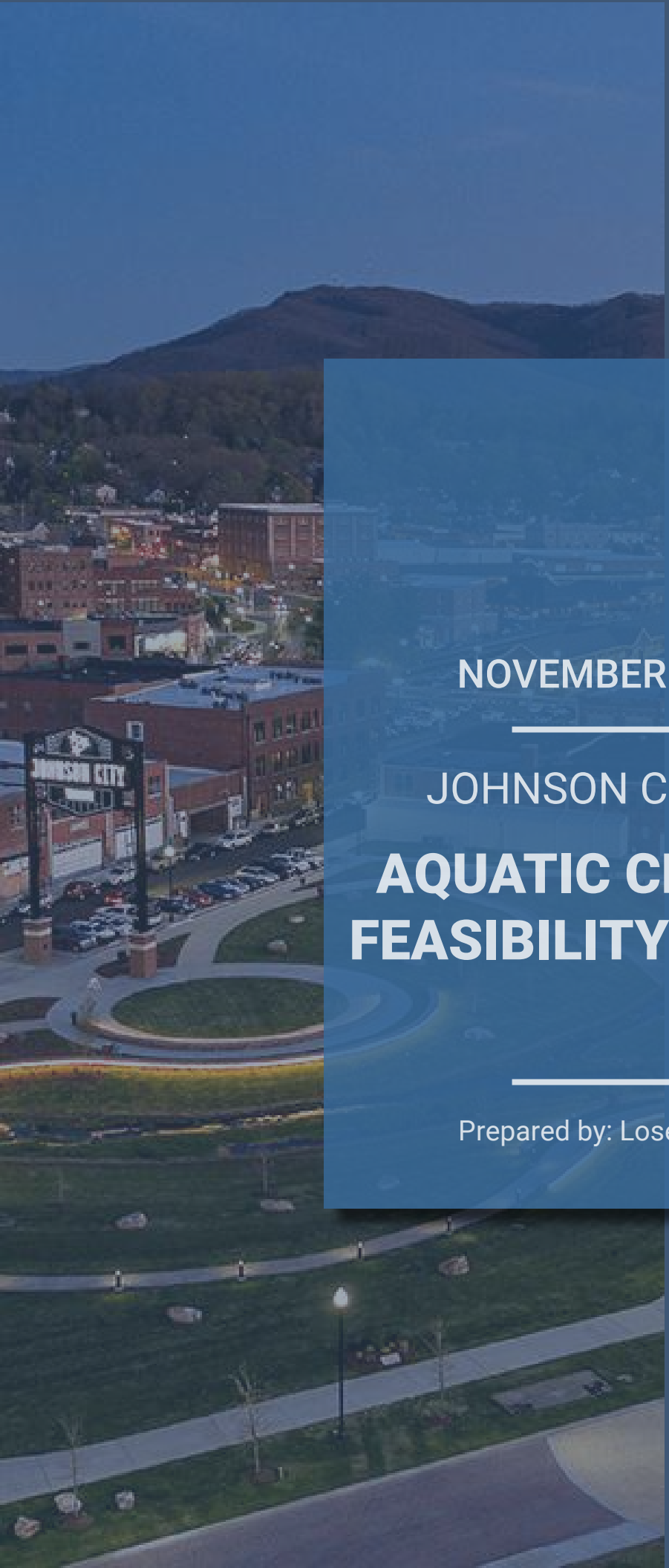

NOVEMBER 2025

JOHNSON CITY, TN

AQUATIC CENTER FEASIBILITY STUDY

Prepared by: Lose Design

LOSE DESIGN
SPACES FOR LIFE.

Special **ACKNOWLEDGMENTS**

This study was made possible through the leadership of Johnson City Parks and Recreation and the guidance of City officials. The consulting team wishes to thank the following individuals and organizations for their contributions to the process:

Board of Commissioners

John Hunter, Mayor

Greg Cox, Vice Mayor

Jenny Brock

Dr. Todd Fowler

Joe Wise

Administration

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Alicia Summers, Assistant City Manager

Steve Willis, Assistant City Manager

April Norris, Director, Parks and Recreation

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Rachel Evans, Recreation Services Manager, Parks and Recreation

Dr. Maggie Darden, Planning and Project Manager, Parks and Recreation

Hannah Smith, Aquatics Supervisor, Parks and Recreation

Consultant Team

Lose Design - Architecture and Engineering

Ballard*King - Market and Operational Analysis

Water Technology, Inc. (WTI) - Aquatics Programming and Design

Their efforts in providing data, coordinating community engagement, and shaping the vision for Johnson City's aquatic future were essential to the preparation of this report.

cover photo: King Commons, Johnson City, TN. (Photo: www.johnsoncitytn.org)

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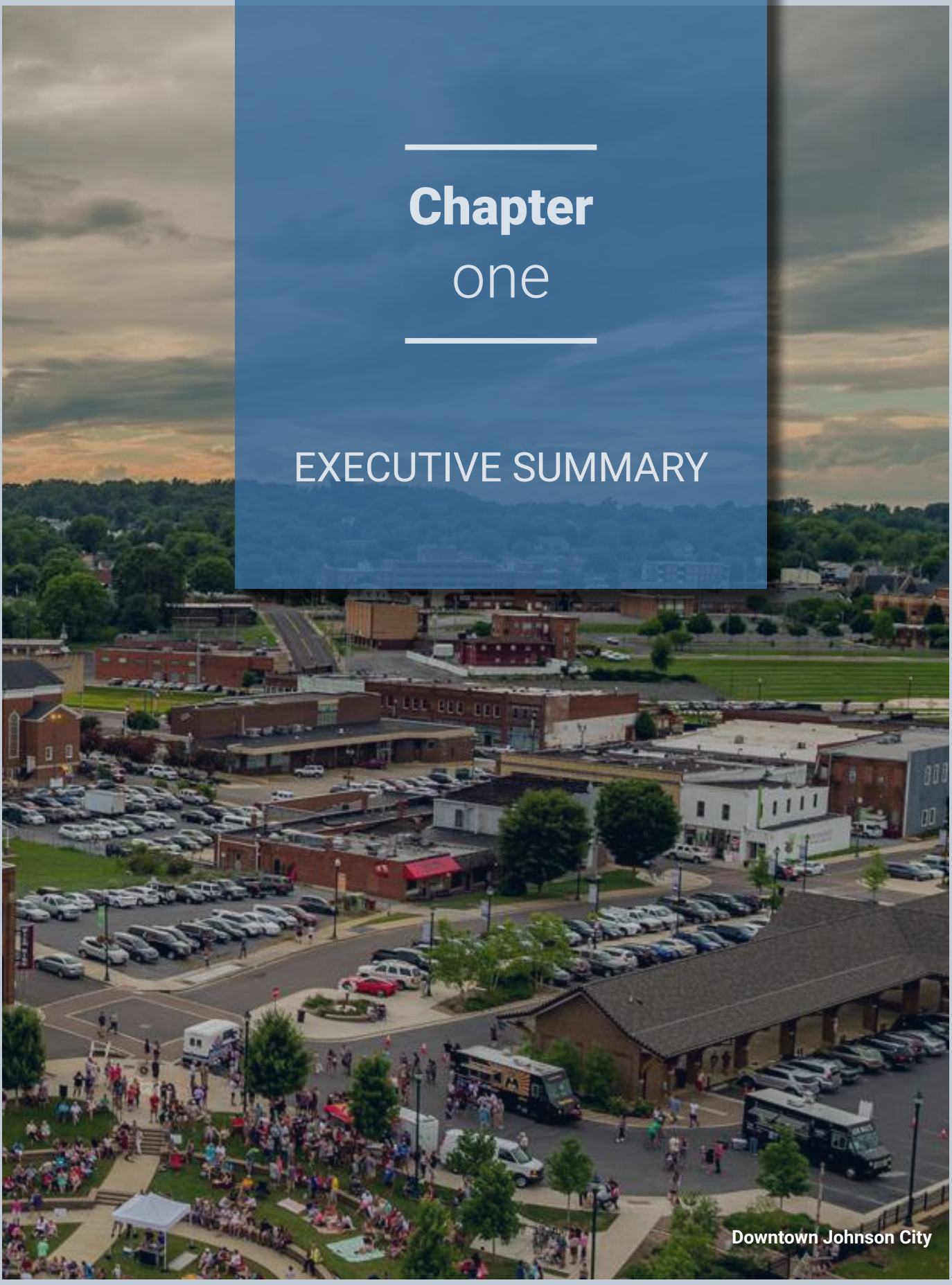

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1.1 EXECUTIVE SUMMARY

This feasibility study was undertaken to evaluate the need, demand, and viability of a new aquatics facility for Johnson City, Tennessee. The process focused on market and operational analysis, facility layout, site evaluation, and concept planning with associated cost opinions. The work was guided by community surveys and stakeholder meetings organized by Johnson City Parks and Recreation, which provided clear direction for the consultant team.

The assessment of the existing facilities showed that although Legion Street Pool and Freedom Hall Pool have served the community for decades, both have reached the end of their service life, with compromised systems, high maintenance costs, and limited capacity to support modern aquatic programming. Memorial Park Community Center provides valuable warm-water programming and recreation opportunities but does not meet competitive or spectator needs. Collectively, the existing system lacks the diversity of amenities, capacity, and quality expected of a contemporary aquatics program.

Market analysis confirmed that the Johnson City primary service area includes a sufficient population base to support a new aquatics center. Participation in swimming and related activities is strong, and trends nationally point toward continued demand for both competitive and recreational water use. At the same time, the analysis noted that household incomes in the service area are below state and national averages, creating challenges for cost recovery and indicating that an operational subsidy will be required. Nevertheless, the regional population growth and the lack of comparable facilities in nearby communities present a unique opportunity for Johnson City to establish a signature facility that meets unmet demand.

Community input reinforced these findings. Survey respondents and stakeholders expressed strong interest in a multi-purpose facility that combines competitive swimming, learn-to-swim programming, therapy, and high-value leisure components such as slides, zero-depth entry, and water play features. These preferences align with national aquatics trends and reinforce the need for a balanced program that can serve all ages and abilities.

The study included a review of potential locations for a new aquatics facility. Based on site evaluation, community accessibility, and the ability to phase construction, the preferred site is the Memorial Park Community Center. Locating the facility at Memorial Park provides operational efficiency by allowing the City to build on an existing community hub and provide the full aquatics program in a single location. The recommended approach is a phased build-out that integrates new competitive and recreational components into the existing center, ensuring efficient use of staff, land, parking, and supporting amenities.

Conceptual layouts and cost estimates prepared by Water Technology, Inc. identify options that range in scale and investment level, with projected construction costs between $39 million and $49 million depending on phasing. The program includes an indoor competition pool designed for swim meets and training, an indoor leisure pool with play features and warm-water space, and outdoor amenities such as a leisure pool and splash pad.

Although operational costs will exceed revenues, consistent with similar facilities across the country, the investment will yield significant community benefits. These include improved health and wellness, expanded youth and family programming, enhanced opportunities for swim clubs and schools, and measurable economic activity from meets and events. The proposed facility will not only meet current demand but will also serve as a long-term community asset that reinforces Johnson City's commitment to recreation, wellness, and quality of life.

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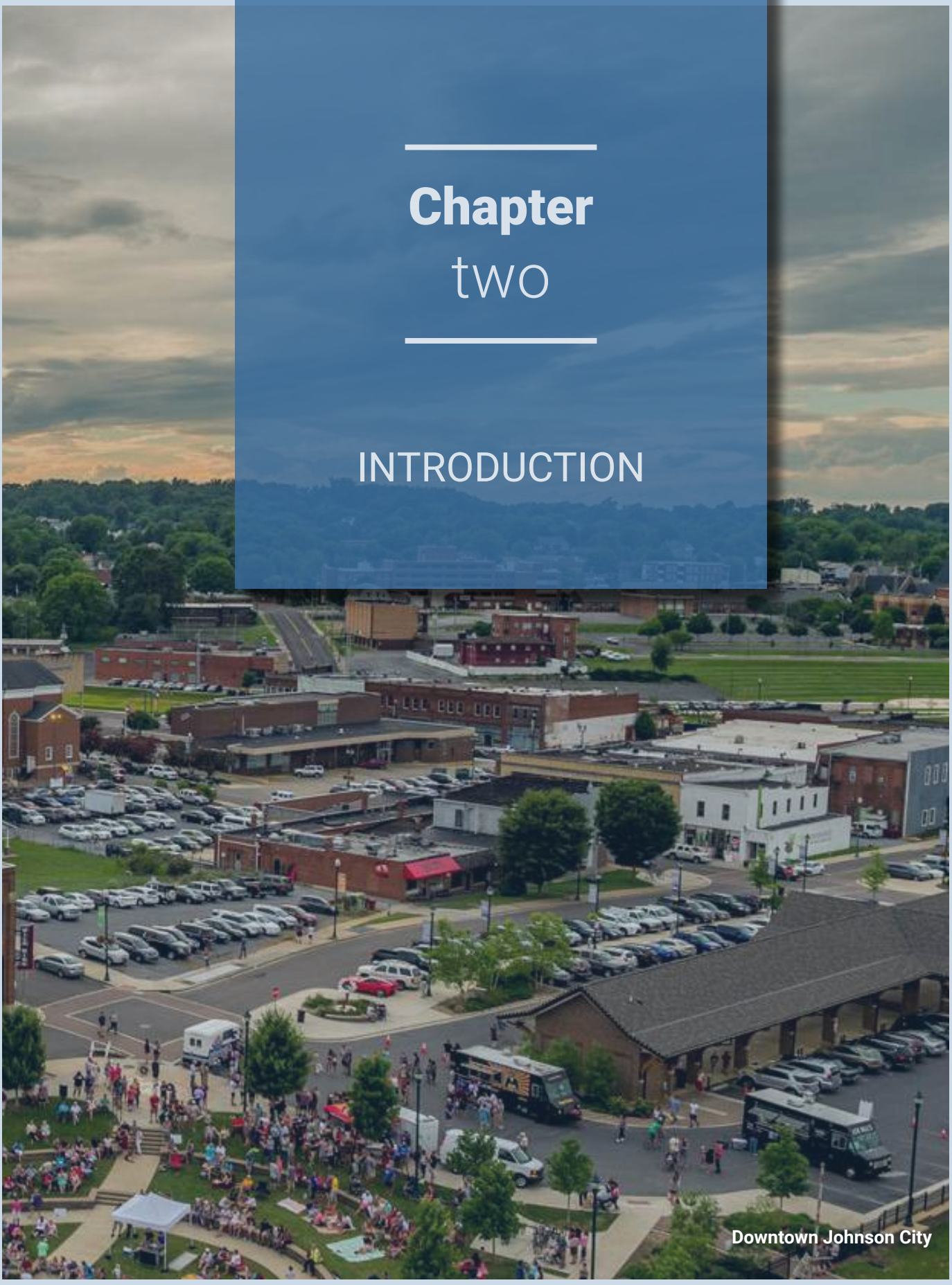
Chapter two

INTRODUCTION



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2.1 INTRODUCTION

Johnson City engaged Lose Design, Ballard*King & Associates, and Water Technology, Inc. to prepare a comprehensive feasibility study for a new aquatics facility. The purpose of this study is to evaluate the need, demand, and viability of a modern aquatics center that addresses the aging and limited infrastructure of the City's existing facilities while meeting the community's growing demand for competitive, recreational, instructional, and therapeutic aquatic programs.

The study was conducted through a collaborative process that included facility assessments, demographic and market research, operational and financial modeling, and conceptual design. Public input was a central element of the process. Johnson City Parks and Recreation organized multiple stakeholder meetings and a community survey that generated more than 1,500 responses. This input provided clear direction to the consultant team and ensured that the study's recommendations reflect the priorities and expectations of Johnson City residents.

Lose Design served as the lead consultant and project manager. Ballard*King & Associates contributed market and operational analysis, including demographic studies, participation trends, and financial models. Water Technology, Inc. led the aquatics programming and prepared the conceptual layouts and cost estimates. Johnson City Parks and Recreation staff, including Director April Norris, Assistant Director Sam Miller, Aquatics Center Supervisor Hannah Smith, and Recreation Services Manager Rachel Evans, played an essential role by coordinating engagement efforts, supplying operational data, and helping guide the study from start to finish.

The following report presents the findings of this process. It begins with an overview of existing conditions, followed by market and demographic analysis, facility program development, concept planning and site evaluation, cost analysis, and concludes with findings and recommendations. Supporting data and detail are included in the appendices.

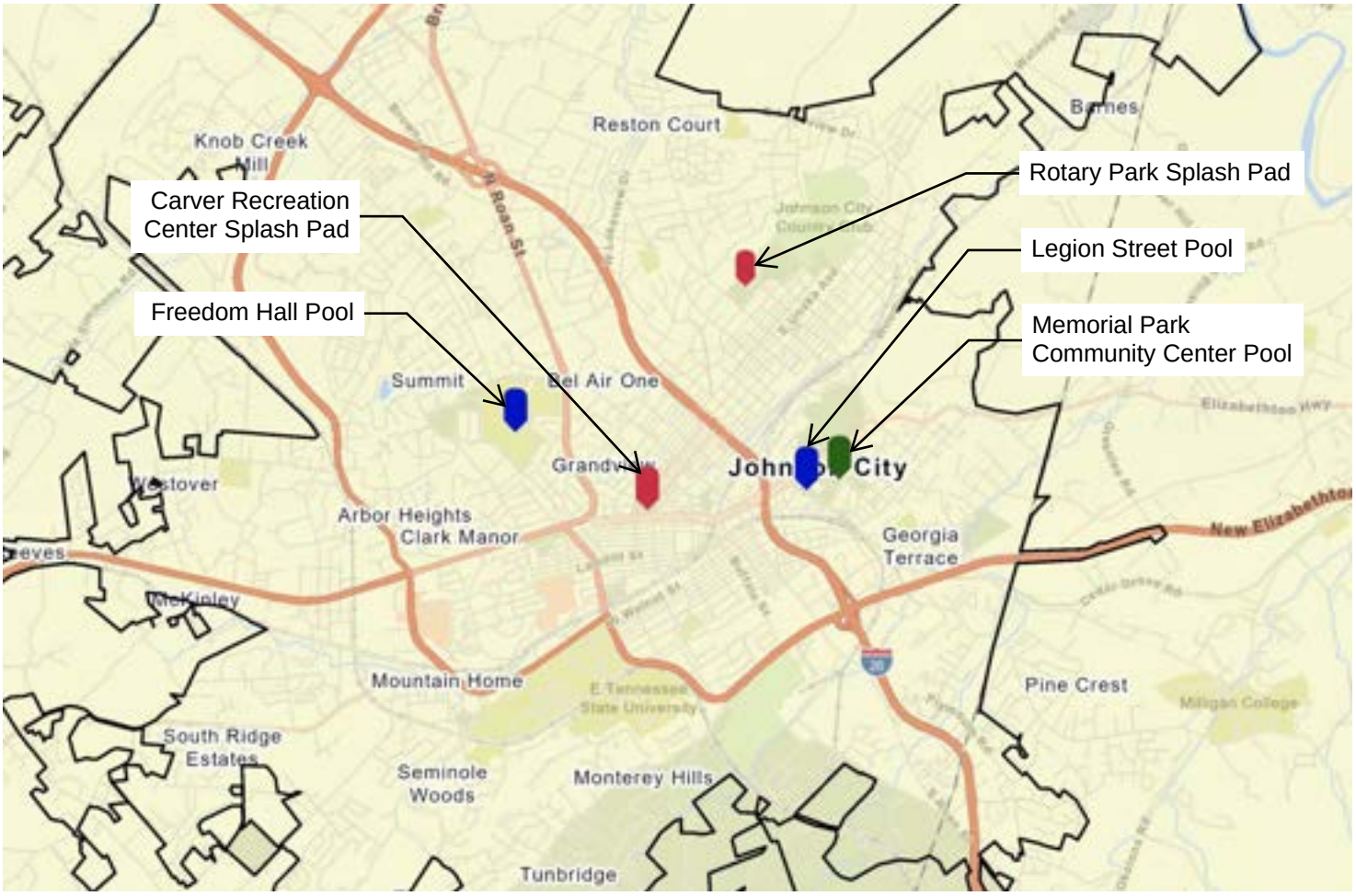

Figure 2.1: Johnson City Aquatic Facility Locations (Ballard*King & Associates, LTD.)

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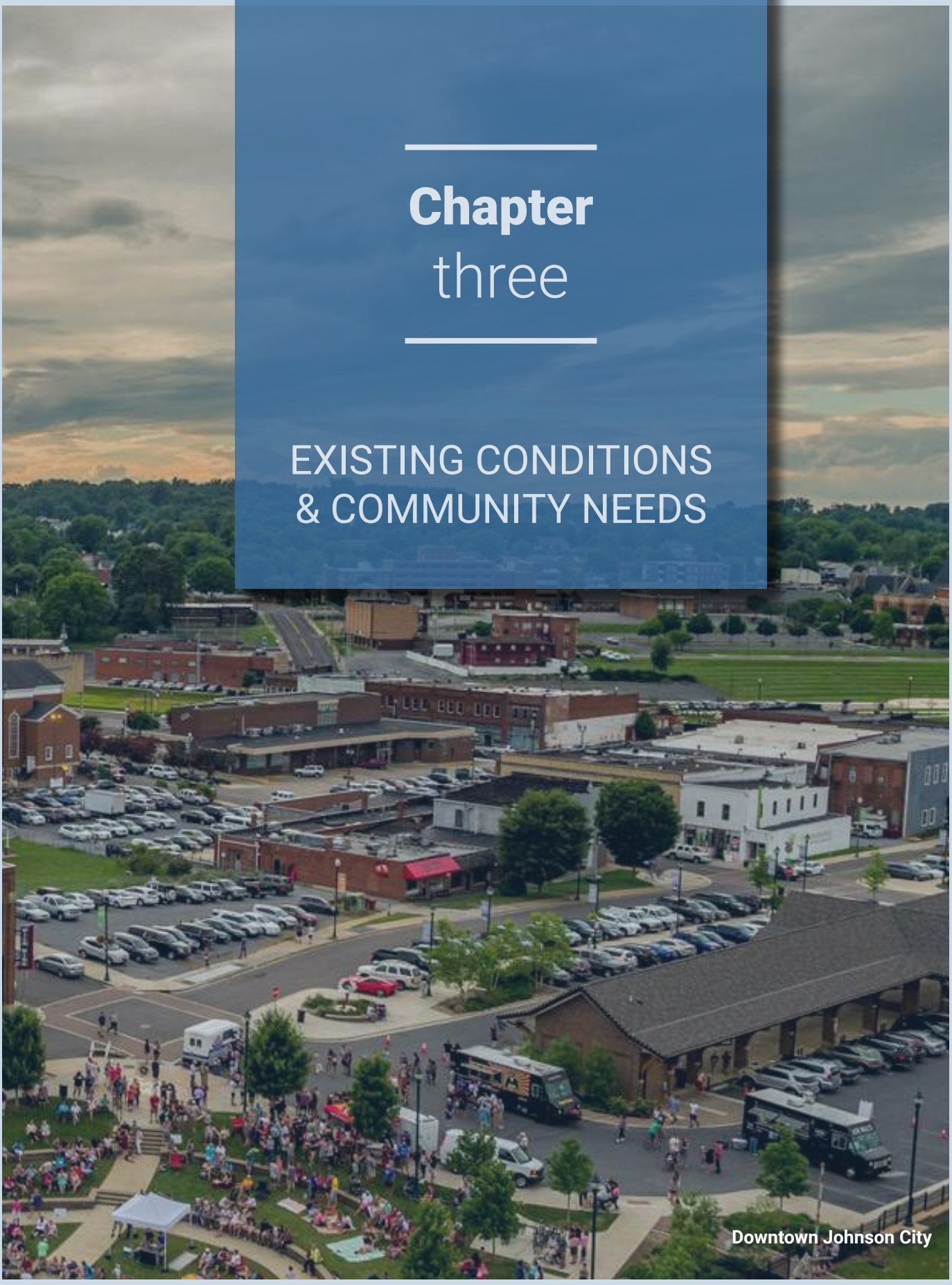
Chapter three

EXISTING CONDITIONS & COMMUNITY NEEDS



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3.1 EXISTING AQUATIC FACILITIES

Johnson City maintains a number of aquatic facilities within its boundaries. For the purposes of this report these facilities have been defined and divided into two (2) categories.

Pools – a body of standing water confined within a constructed structure for the purpose of recreation and fitness. These facilities are regulated to require proper sanitation, maintenance, and staffing, with public pools requiring properly trained lifeguard staff while it is open for use. Johnson City has one (1) outdoor pool and four (4) indoor pools (two locations).

- Legion Street Pool (Outdoor)
- Freedom Hall Pool (Indoor)
- Memorial Park Community Center (Indoor)

Splash pad (spray ground) – a play area with interactive fountains, sprinklers, fountains, nozzles and other devices or structures that spray water but have no standing water. These facilities can operate with a pass-through or recirculating system. A pass-through system uses potable water and does not require sanitation equipment as the water is collected in a drain and typically diverted to the sanitary sewer system. A recirculating system requires a sanitation system operating similarly to a pool. In Johnson City, splash pads are typically provided as no-cost, self-directed play opportunities (like a playground, but only available seasonally), which makes them more accessible than pools. While lifeguards are not required, popular sites in other communities often have attendants present. Johnson City has two splash pads.

- Carver Recreation Center Splash Pad (recirculating system)
- Rotary Park Splash Pad (pass-through system)

The following is a brief assessment of the City's existing pools.

Legion Street Pool

Located at 111 Legion Street, Legion Street Pool is an outdoor facility built in 1959 and is over 65 years old. The pool is open in the summer for approximately 3 months. The pool has six 50-meter lap lanes, an adjacent diving well, and a water depth range of 3'-3" to 12'-0". It features a 1-meter diving board; however, no starting platforms or backstroke flags are available for competitive or recreational lap swimming. Additionally, the 50-meter pool lacks sufficient depth to safely add starting platforms for competitive use. The pool uses perimeter gutter system for surface overflow. A detailed evaluation was not conducted as part of this study; however, input from the City indicates that the pool shell and plumbing are compromised and leaking, leading to significant daily water loss. This ongoing water loss further damages the pool system and increases overall operational costs. As designed, the pool is not well suited for competition or competitive training and may be more appropriate for community recreation. As a recreational aquatic center, it offers limited features compared to current trends in aquatic facilities for public use. The facility no longer meets the City's needs due to its inability to align with industry standards. Additionally, its seasonal usage, rising operational costs, and ongoing deterioration of the pool system further limit its effectiveness. Renovating the facility is not a wise use of City funds, and given these factors, a new aquatic facility should be considered.

Figure 3.1: Legion Street Pool (www.johnsoncitytn.org)

Positives

- Large body of water which allows for increased user capacity.
- 50-meter pool for competitive swimming.

Negatives

- Pool is at a busy intersection making it more of a challenge to get to.
- Limited parking.
- There are large areas of open water with no real recreational appeal.

• There are no shade structures.
• Adjacent to Memorial Park Community Center and indoor pools.

Freedom Hall Pool

Located at 1320 Pactolas Road, Freedom Hall Pool is an indoor facility built in 1974 and is over 50 years old. The pool has six 25 meter lap lanes, an adjacent shallow program area, and a water depth range of 2'-6" to 10'-0". It features a 1-meter diving board and starting platforms for competitive swimming. The pool uses wall-mounted skimmers for surface overflow, keeping the water level about 6 inches below the pool deck. A detailed evaluation was not performed in conjunction with this study, however operational input from the City and a facility assessment completed in January 2025 was reviewed.

Figure 3.2: Freedom Hall Pool (www.johnsoncitytn.org)

The facility is not adequate for the competitive aquatic needs of the community. Although it is used by the Science Hill High School Swimming and Diving Team and the Barracudas Swim Club, it does not meet the current preferred course length requirements for competitive swimming. The use of 25-meter pools for competition in the United States is extremely limited. Typical course lengths in the United States for competition includes 25 yards and 50 meters. According to the City, the pool does not meet the proper depth requirements for competitive diving and has a maximum water depth of 10'-0". Additionally, a perimeter gutter system, in lieu of the existing skimmer overflow system, would be better suited for competition and/or training pools as they provide the following advantages:

- Reduce Wave Turbulence - Because the gutter system runs along the perimeter of the pool, it helps to efficiently absorb and redirect water, minimizing the waves and splashes that are created by swimmers. This is particularly important in a competition pool, where excessive waves can interfere with swimmers' performances and timing. The continuous flow along the edges ensures smoother water conditions, reducing the chance of wave buildup in the pool.
- Improved Water Surface Stability - Gutters help maintain a more consistent water surface elevation by capturing waves and swells at the pool's edge, allowing for a more stable environment for swimmers. This is key in a competitive setting where consistency of the water surface is crucial for accurate timing and performance. Gutters help to maintain a constant water depth.
- Improved Water Quality - Gutters ensure that debris is continuously removed along the edge of the pool, which can help maintain better water quality, especially in pools with large amounts of surface debris and high bather loads. Skimmers are located periodically around the pool's perimeter and may not remove debris as quickly or from as many areas, meaning the debris could stay in the water longer and impact overall water quality.
- Reduced Maintenance - Gutter systems tend to require less frequent cleaning than traditional skimmers, as they spread the workload of debris removal across the whole pool, reducing the risk of clogs. Skimmer baskets can get clogged quickly, requiring more frequent maintenance, especially if the pool has high bather loads or has a lot of tree coverage nearby.

AsAssessment of the Lower Pool Service Area at Freedom Hall Civic Center in January 2025 revealed significant structural issues, including concrete spalling, exposed and corroded reinforcing steel, and moisture infiltration, all exacerbated by the highly corrosive environment. These problems pose immediate risks to the pool's safety and functionality, requiring urgent remediation to restore structural integrity and prevent further damage. The pool

wall, especially on the southern side, shows considerable deterioration, while the surrounding access trenches are similarly compromised, both requiring significant repairs.

Renovating and repairing the facility will be costly and challenging due to the complexity of the required repairs, potential constructability issues, and the possibility of unforeseen problems. Additionally, the aquatic program no longer meets the needs of the community. As designed, the pool is not well suited for competition and competitive training and may be more appropriate for learn-to-swim classes, lifeguard training, and recreational lap swimming. Based on the need for significant repairs and the inability of the facility to meet the community's current aquatic programming needs, a new aquatic facility should be considered.

Positives:
- Adjacent to Liberty Bell Middle School and Science Hill High School.
- Ample parking.
- Deep water with ability to train/certify staff in the winter.

Negatives:
- Stand-alone facility that requires additional staff.
- Current short course competitive swimming in the United States uses a 25-yard course.
- While providing 10-foot depth is adequate for many uses, it is short of current standards.
- Lack of recreational amenities such as zero depth, play structures, lazy river, and water slides.
- Service area overlaps with Legion Street Pool and Memorial Park Community Center.

Memorial Park Community Center Pool

Located at 510 Bert Street, t Memorial Community Center includes three indoor pools and was built in 2012. The facility includes a six lane 25 yard lap pool, a warm water therapy pool, and a warm water teaching pool. The facility is not used for competition and does not include starting platforms or sufficient deck space for hosting competitive events. The facility is tailored to serve as a community recreational aquatic center and appropriately provides the following scheduled programming options: learn-to-swim classes, aerobics classes, warm water therapy, and lap swimming. The Freedom Hall Pool and Legion Street Pool are both deteriorating, and their current condition limits the City's ability to offer quality aquatic programming. As a result, the City should consider building a new aquatic center. This new facility should complement the Memorial Park Community Center and provide additional aquatic programming opportunities (i.e., competition, training, water play, etc.).

Figure 3.3: Memorial Park Community Center Pool (www.johnsoncitytn.org)

Beyond aquatics, the facility has two full-size basketball courts, fitness areas, classrooms and the senior center.

Positives:
- Located within a multi-generational facility with a number of other amenities.
- Multiple bodies of water with varying temperatures to address different uses and demographics.
- Ample parking.
- The pool's mechanical systems are in good working order.

Negatives:
- Staff-intensive operation.
- Lack of appropriate water depth for starting blocks in the lap pool to host competitions.
- Lack of recreational amenities such as zero depth, play structures, lazy river, and water slides.
- Service area overlaps with Legion Street Pool.

Figure 3.4: Rotary Park Splash Pad (www.johnsoncitytn.org)

Splash Pads

City splash pads are operational from Memorial Day through Labor Day. Normal operating hours are 10am – 7 pm.

Rotary Park – Located at 1001 N. Broadway St, this splash pad was installed in 2017. The splash pad has upright spray features as well as ground sprays. The elements are activated by pressing large buttons within the splash pad. The splash pad is situated next to a playground, pavilion, and restroom as part of the 10-acre park.

Carver Recreation Center Splash Pad – Located at 322 W. Watauga Ave., this splash pad was installed in 2021. The ground sprays are activated by touching a button next to the splash pad along with upright spray features. The splash pad is situated next to the recreation center with a pavilion and playground nearby.

Positives:

- Provide water play within larger park setting.
- Has nearby greenspace, dry playgrounds, shelters, and restrooms available to users..
- Newer facilities with mechanical systems in good working order.
- Ample parking and access along thoroughfares.
- No staffing required for operations.
- Use is free.
- The facilities are lower cost to build, maintain, and operate than pools.
- Spray is button activated (rather than continuous), so water supports intentional use.
- Separate service areas within Johnson City.

Figure 3.5: Carver Recreation Center Splash Pad (www.johnsoncitytn.org)

Negatives:

- No variety of interactive play features are currently offered.
- Each are similar to one another without unique theming.
- Unlike outdoor pools, none currently offer leisure “deck” space with lounge-style seating for sunbathing (although nearby benches and greenspace support this).

Table 3.1 - Age of Aquatic Facilities

Pool	Constructed	Renovated
Legion Street Pool	1959	
Freedom Hall Pool	1974	2017
Memorial Park Community Center Pool	2012	
Rotary Park Splash Pad	2017	
Carver Recreation Center Splash Pad	2021	

Summary

- The introduction of splash pads has been well-received.
- The City has provided basic off-season maintenance to keep the outdoor pool operational. In addition, efforts have been made to open the pools with minor repairs.
- The Freedom Hall Pool will require significant investment to reopen as notable structural issues have been identified.
- The Legion Street Pool will require significant investment to continue operations as the pool shell and plumbing have been compromised, leading to leaking and daily water loss.
- The lack of heaters at outdoor pool impacts the early and late season attendance.
- Memorial Park Community Center pools are in good condition.
- There is a lack of variety in the amenities offered at each of pools.

3.2 OPERATIONAL PERFORMANCE

Table 3.2 - Attendance at Pools

Pool	2020	2021	2022	2023	2020-2023 Average
Legion Street Pool*	-	12,461	13,807	9,778	12,015
Freedom Hall Pool	11,518	18,600	17,151	7,070	13,585
Memorial Park Community Center Pool*	6,281	13,669	20,307	28,363	17,155
TOTAL	17,799	44,730	51,265	45,211	42,755

* Legion Street Pool was closed summer of 2020 due to the COVID-19 pandemic (COVID). Memorial Park Community Center closed due to COVID-19 Pandemic on March 22, 2020. These numbers reflect use from January 1, 2020- March 22,2020. Facility reopened to the public till the following year (April 2021).

Table 3.3 - Revenue and Expense History of Aquatics

	2020	2021	2022	2023	2020-2023 Average
Revenue	$85,459	$43,729	$109,819	$120,192	$89,800
Expenses	$438,152	$325,476	$481,119	$518,861	$440,902

Summary

- COVID had a significant impact on recreation and aquatics participation nationwide. Many facilities were closed in 2020 and had limited operations in 2021. Often, 2022 served as a return to pre-COVID operations, however many facilities continued to be impacted.
- Post-COVID, staffing was also an issue affecting pool operations.
- Attendance over the past 3 years is lower than pre-COVID.
- Overall cost recovery of the aquatics operation from 2020-2023 is 20.4%. Both 2022 and 2023 are better at 22.8% and 23.2%.
- Capital in FY 24 included valve and filter media replacement at Memorial Park Community Center at $30,000.00.

3.3 COMMUNITY INPUT AND ENGAGEMENT

Johnson City conducted an on-line survey from February 18 through March 18, 2025. There were 1,521 surveys completed. On-line surveys allow for feedback on topics with relative speed and ease. While not statistically significant, they do provide reliability in the data collected. Survey results are in a separate attachment.

In addition, stakeholder meetings were held to gather additional information about aquatic participation.

The key information from these are:

- City benefits from having multiple facilities
- Staff is engaged and supportive of aquatics
- Variety of pools
- Aged facilities
- No facilities conducive to hosting competitive aquatic events
  - » Limited deck space
  - » No spectator seating
  - » Inadequate depth
- Aquatic programs are at capacity prohibiting growth and meeting demand
- Limited recreational value of pools

Specifically within the survey:

- Current pools meet the needs well or very well for only 15.0%
- Top 3 responses for not using the current facilities:
  - » Facilities lack ideal amenities – 46.6%
  - » Pools are too crowded – 34.5%
  - » Do not know what is offered – 33.8%
- 61.3% use other aquatic facilities
- In prioritizing amenities, the top 4 responses were:
  - » Lazy River
  - » Competitive/Lap Swimming
  - » Water Fitness
  - » Swim Lessons
- 69.1% support a new combination indoor and outdoor facility
- Most important aspect of new aquatic offerings is fee/cost to use (74.9%), followed closely by fun features (67.6%)

Aquatics Feasibility Study Stakeholders Meeting Summary (March 12, 2025)

<u>Strengths</u>

- 3 pools in 1 facility with 3 temperatures
- 3 lap pools, one long course, 2 short courses
- Freedom Hall Civic Center has close ties to school communities
- Legion Street Pool serves community pool “summary vacation”
- 3 ADA accessible pools
- FHCC depth variation
- All 3 have good parking options
- Range of services area/location
- Auxiliary “dry” space
- Freedom Hall Civic Center loading/unloading for equipment
- Freedom Hall Civic Center depth allows quality lifeguard certifications and training room
- Staffing structure is strong

  - » Feeder from clubs and organizations
- Multipurpose spaces (gyms)
- Admin – support/prioritizing with community groups is the best in two decades
- Engaged users of all ages
- Untapped staffing potential (no or little use of Milligan students)
- FH varying depth
- Provides stability for businesses

Weaknesses

- Facilities are "aging:"
  - » Leak management/plumbing
  - » Aesthetics
- Outgrowing MPCC
  - » High interest in classes and public use
- No easy loading access at MPCC
- Cap/Limit on competitive events due to occupancy
- Limited deck Space
- No Spectator space
- Shape of the depth of the pool at Legion Street
- FHCC depth is no longer meeting current safety standards
- Inadequate for diving
- Community access to lap swim is limited (scheduling is very difficult)
- Announcement/program/schedule change limitations by going through a different department is frustrating for users who need the information urgently
- FHCC Internal communication regarding events scheduling at Freedom Hall
- No "fun" play structures (slide, play structure, rock wall, etc.) in any of our pools
- Lack of zero entry depth pool
- No "attractive" options
- Shared Spaces
- Lifeguards?
  - » Timeliners
  - » Professionalism
  - » Saturday & Sunday Morning
- Cleanliness
- Consistency in access to facilities

Opportunities

- Population growth
- Popularity/interest in swimming as a sport/recreation
- Water safety certifications could bring in outside funding
- Swim lessons
- Expanded aquatic sport opportunities like diving
- Community access and education
  - » Could be combined into school curriculum
  - » Partnership with school system
- Recreation (lazy river)
- Expanded training for certifications like swift water rescue and diving
- Partnerships with aquatics-based businesses (economic development)
- Community sponsorships
- Health equity access
- Water therapy (health, OT, PT) partnership with the VA
- Higher education competition space
- College using pool for training and competition
- Other nearby facilities (KAC) are maxed out for lessons and competition

Threats

- Funding?
- Maintenance budget – there is lots of overhead with pools and you may not get an ROI.
  - » Important to educate decision makers on the benefits of aquatics center
  - » Account for inflation of asset management and maintenance
  - » Account for inflation with staffing
- Will an outside agency corner the market and take/devalue the priority of community access?
- Possibility of a catastrophic failure of one of the facilities
- Current limitations scheduling with Legion Street Pool
  - » Impact current community programming
  - » Limiting growth
- Shared scheduling commitments at FHCC shuts down partnerships
- Freedom Hall – is there a changing scope of facility? Does ETSU want to do something different with that space?
- Opportunities are going elsewhere, not staying in Johnson City.

Other

- Swim lessons feed into swim team, which feeds into lifeguards, then feeds into college scholarships
- Social for senior citizens and people in general
- Therapy pool helps reduce blood pressure
- Rehab and prehab for surgery and injuries, arthritis program, silver sneakers subsidizing
- Community engagement through programming and races
- So much opportunity for advancement and future of adolescents for safety or potential scholarships
- A daily pool user reported that their doctor told them to get into the water (therapy)
- State park pools shut down
- Survey did not include all of the zip codes of some of my members and participants
  - » Survey author note: the question had an “other” option for individuals to write in their zip code
- Go see other facilities: Christianburg, Kingsport Aquatic Center, etc. What is good? What did not work?
- Other facilities of note: Elkhart Health and Aquatics, Greensboro, Centre College, Mecklenberg Aquatic Center
- Communication/promotion of facilities and accessibility
- Other facilities: Morristown Landing
- Swim hours city understands kids could drown
  - » Lifesaving. Physical and mental health
- New facility
  - » Cleaner
  - » More programming time slots
  - » Better consistency from lifeguards on Saturday and Sunday mornings
- Morristown Landing
  - » Big screen on wall
  - » Multiple party rooms/classrooms
  - » Stairs into water
  - » True shallow end to deep end
  - » Plenty of space on deck for gear and walking
- All good ideas but – is the 7-10 horizon to actually build a new facility or facilities too long? In that time, could some of the threats – pool shutdown increase in construction costs – come to pass? And would these further handicap growth of the “opportunities”?
- Facilities: Greensboro Aquatic Center
- Sahm Park (Indianapolis, outdoor)
- Our city desperately needs more competition space with spectator seating.
- We also need a place for young families to go, a fun family venue to deepen relationships engage in healthy activities, and build skills that will last a lifetime.

- We need to do this together with healthcare partners, educational partners, and private entities. JC Rec, JC schools, Ballad/Holston Medical Group/VA, etc. ETSU, Milligan, Providence Academy, other private schools, NOLI outdoor group, etc.
- Good parks to look at: Elkhart Health and Aquatics
- Holland Michigan Aquatics Center

3.4 Summary of Needs

The assessment of Johnson City's aquatic facilities reveals that the current system cannot meet the community's aquatic needs moving forward. The Legion Street Pool and Freedom Hall Pool are outdated and beyond their useful life, requiring either major renovation or replacement. The Memorial Park Community Center pool, while newer and well-used, is limited to warm-water programs and lacks the size or versatility to address broader community demand. Seasonal splash pads provide popular play opportunities but do not substitute for comprehensive indoor and outdoor aquatics.

Taken together, these findings demonstrate that Johnson City's existing aquatics system is fragmented, aging, and undersized. The City requires a new, multi-purpose facility that can provide competitive swim space, instructional and therapeutic water, and family-oriented recreation in one centralized location.

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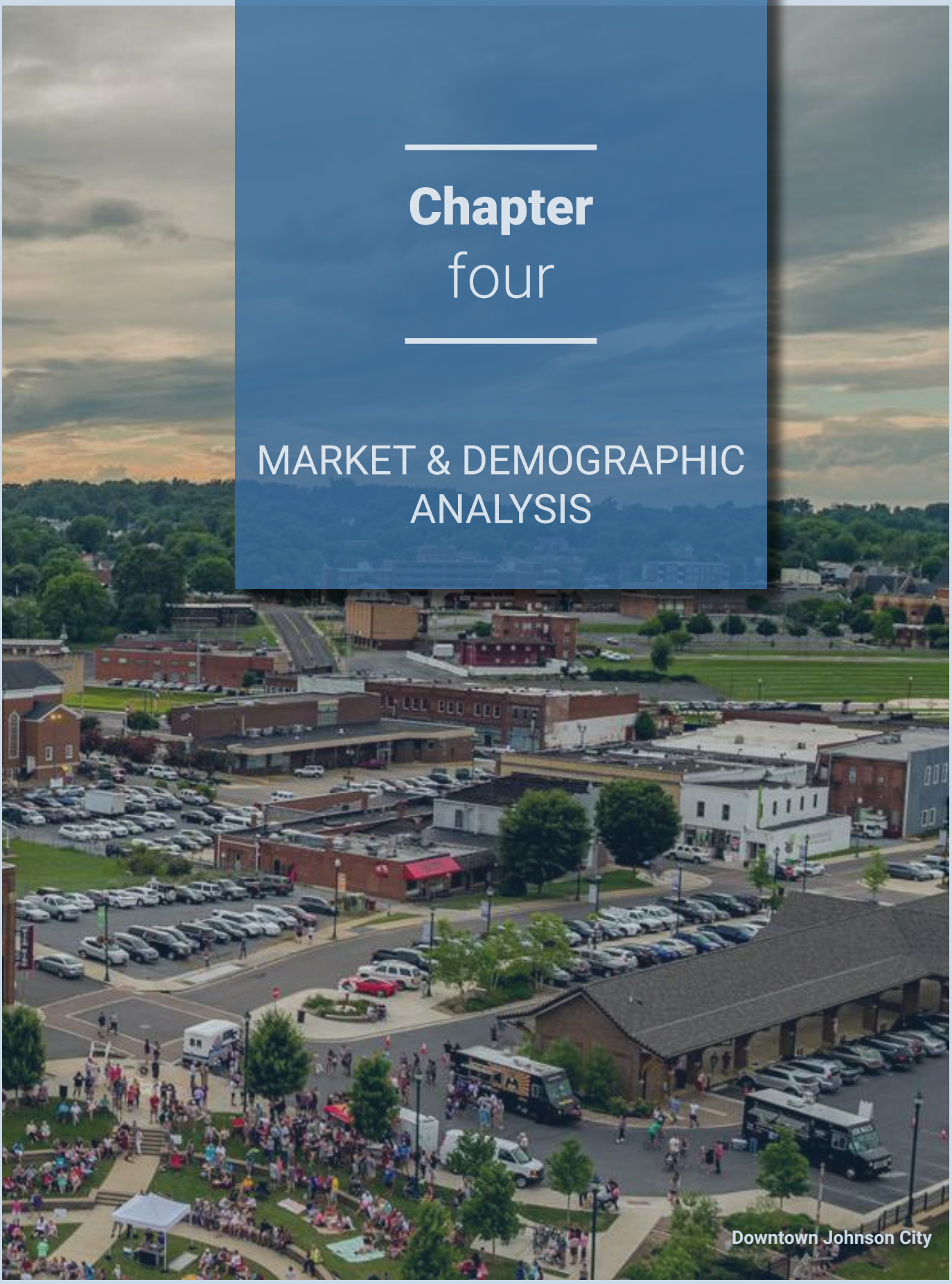
Chapter four

MARKET & DEMOGRAPHIC ANALYSIS



Downtown Johnson City

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MARKET & DEMOGRAPHIC ANALYSIS

4.1 Introduction

Ballard*King & Associates (B*K) has been contracted by Lose Design to complete a market assessment for the Johnson City area for an aquatic facility. The first step to complete this scope of work is to determine service areas for analysis and recreation/leisure activities.

B*K accesses demographic information from Environmental Systems Research Institute (ESRI) who utilizes 2020 Census data and their demographers for 2024-2029 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.

4.2 Service Areas Definition

The information provided includes the basic demographics and data for the Primary, and Secondary Service Areas with comparison data for the State of Tennessee and the United States.

The Primary Service area is the boundary of Johnson City. Residents within this area will likely be hyperusers of the facility due to proximity

The Secondary Service Area is defined as the distance people will travel on a regular basis (a minimum of once a week) to utilize recreation facilities. Use by individuals outside of this area will be much more limited and will focus more on special activities or events. B*K drew a boundary encompassing an approximate 30-minute drive time that is contracted to the northwest and west as there are recreation facilities in Kingsport and Jonesborough.

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 service providers in the service area. Alternative service providers can

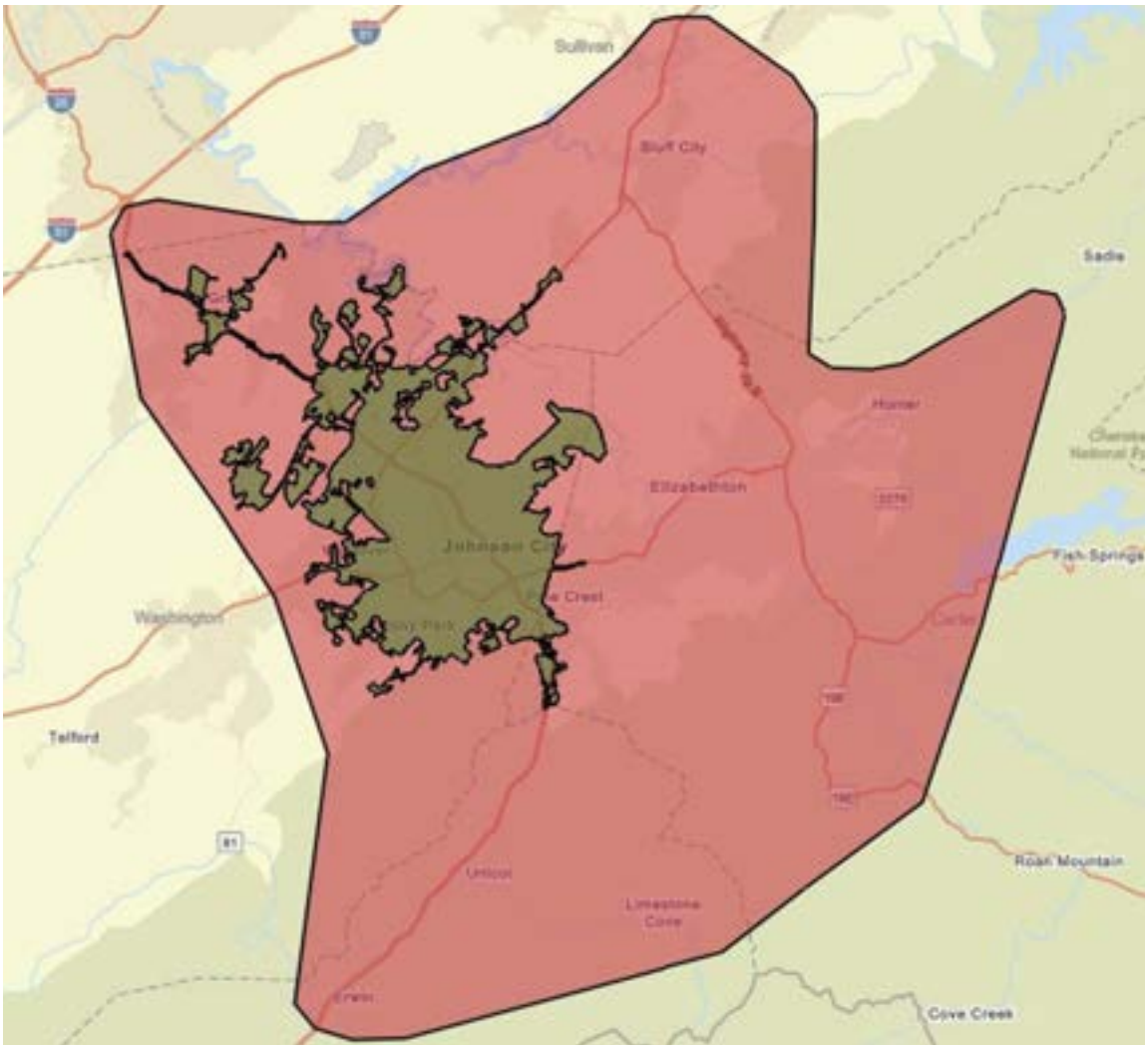


Figure 4.1: Service Area Map. Primary service area defined by green boundary (City of Johnson City). Secondary service area defined by red boundary. (Ballard*King and Associates.)

influence participation, membership, daily admissions and the associated penetration rates for programs and services.

Service areas can vary in size with the types of components in the facility. Additionally, the programs, events, location and facility amenities can alter service areas. Based on the experience in other communities and alternative providers in the area, the following is presented to consider for the Secondary Service Area.

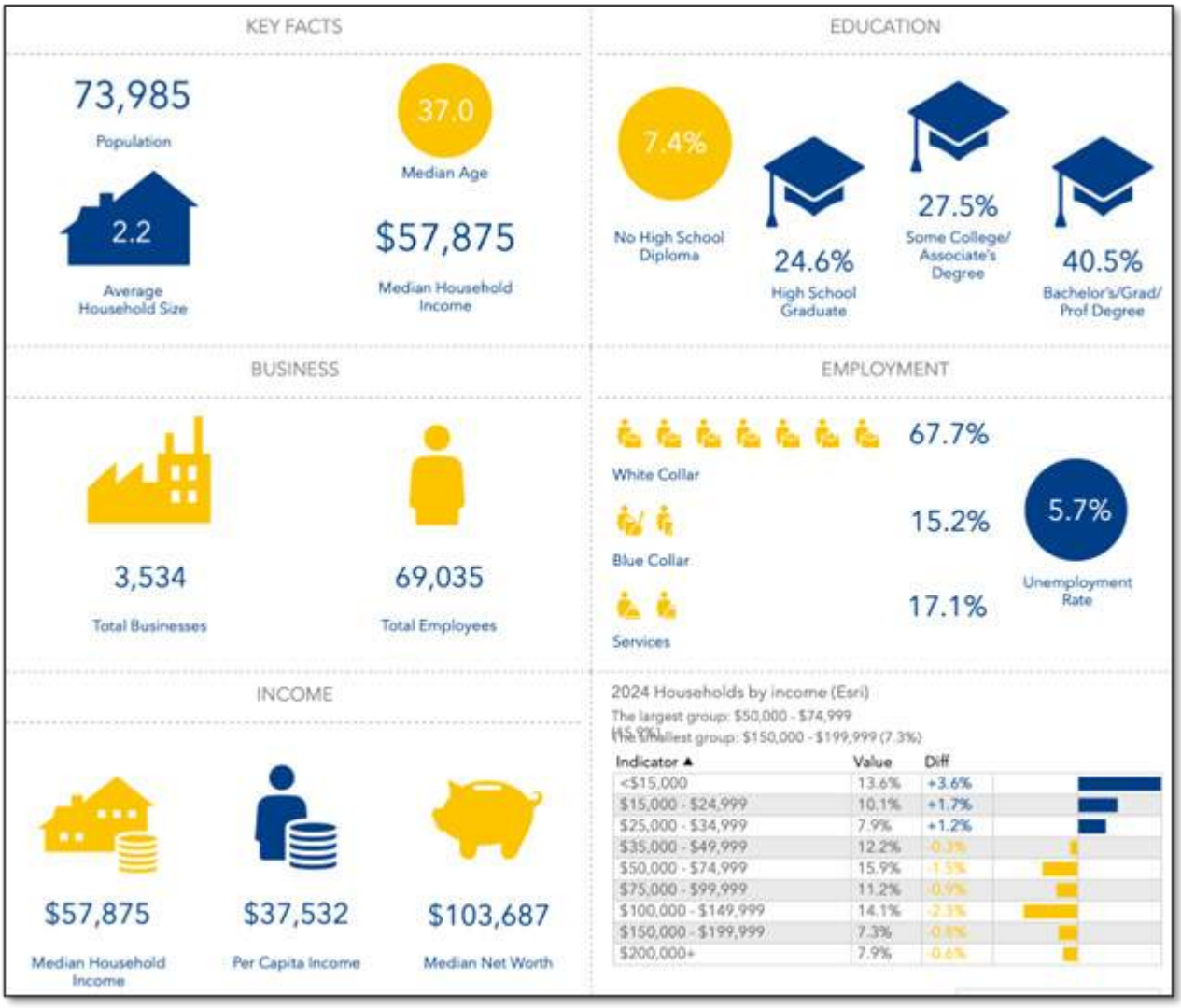


Figure 4.2: Households by Income comparison uses the Primary Service Area and compares it to Washington County

Table 4.1 - Demographic Summary

	Primary Service Area	Secondary Service Area
Population		
2020 Census	56,368	176,368
2024 Estimate	73,985	180,021
2029 Estimate	75,871	182,844
Households		
2020 Census	29,959	74,928
2024 Estimate	31,175	76,912
2029 Estimate		78,685
Families		
2020 Census	16,132	45,321
2024 Estimate	16,473	45,826
2029 Estimate	16,954	46,624
Average Household Size		
2020 Census	2.22	2.27
2024 Estimate	2.23	2.26
2029 Estimate	2.22	2.25
Ethnicity (2024 Estimate)		
Hispanic	6.8%	4.8%
White	80.4%	86.7%
Black	6.6%	3.5%
American Indian	0.4%	0.4%
Asian	2.2%	1.3%
Pacific Islander	0.1%	0.0%
Other	3.1%	2.1%
Multiple	7.3%	6.1%
Median Age		
2020 Census	36.0	41.8
2024 Estimate	37.0	42.2
2029 Estimate	38.5	43.1
Median Income		
2024 Estimate	$57,875	$59,933
2029 Estimate	$70,676	$72,738

4.3 Demographic Analysis

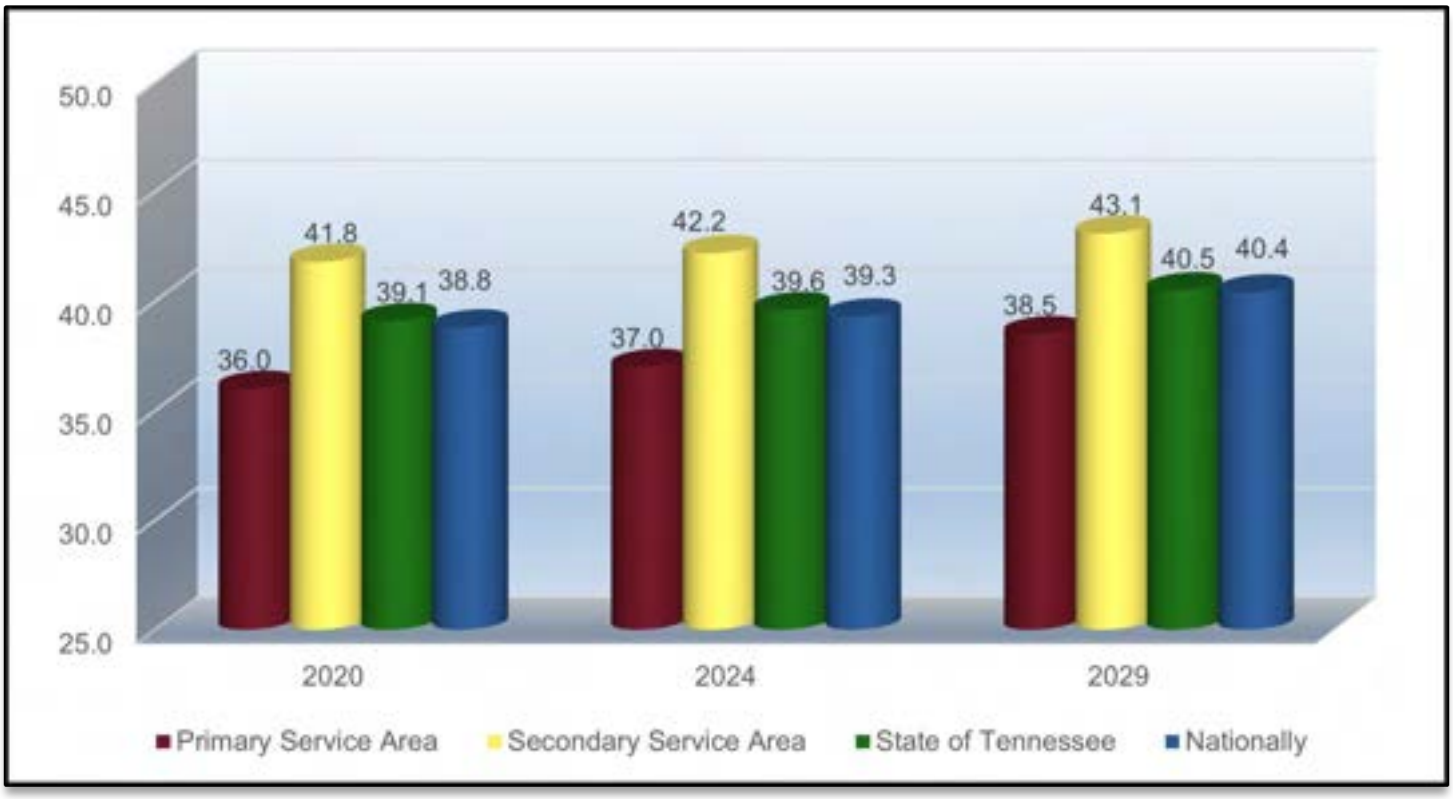
Age and Income

The median age and household income levels are compared with the national number as both factors are secondary 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 4.2 - Median Age

	2020 Census	2024 Projection	2029 Projection
Primary Service Area	36.0	37.0	38.5
Secondary Service Area	41.8	42.2	43.1
State of Tennessee	39.1	39.6	40.5
National	38.8	39.3	40.4

Chart A - Median Age



The median age in the Primary Service Area (37.0) is lower than the State of Tennessee (39.6) and National median ages (39.3). The Secondary Service Area (42.2) is higher than the State and the National number. For the development of an aquatic facility a lower median age is preferred, as it points to families with younger children, which are significant users of these types of facilities. Parks and recreation activities, programs and events draw a large demographic, but swimming tends to be most popular with youth and their parents. Adults participate in lap swimming and water fitness, but not at a lower rate.

The Table 4.3 provides the number of households and percentage of households in the Primary and Secondary Service Areas with children.

Table 4.3 - Households with Children

	Number of Households with Children	Percentage of Households with Children
Primary Service Area	7,068	23.8%
Secondary Service Area	18,620	24.9%
State of Tennessee	--	29.8%

The information contained in Table 4.3 helps further outline the presence of families with children. As a point of comparison in the 2024 USA Projection, 30.2% of households nationally had children present.

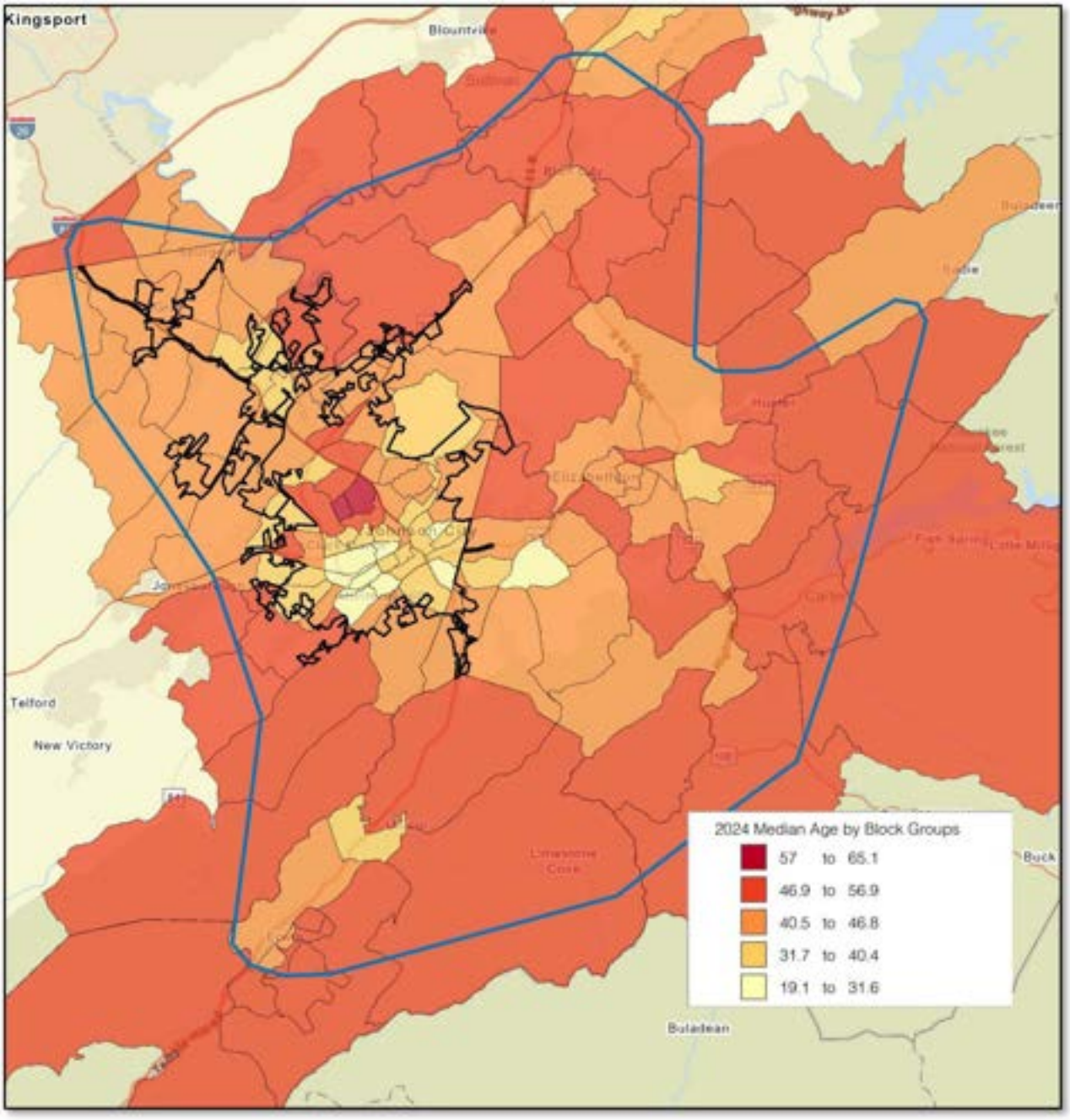


Figure 4.3: Median Age by Census Block Group Map (Ballard*King and Associates)

Table 4.4 - Median Household Income

	2024 Projection	2029 Projection
Primary Service Area	$57,875	$70,676
Secondary Service Area	$59,933	$72,738
State of Tennessee	$69,015	$81,637
National	$79,068	$91,442

Chart B-1 - Median Household Income

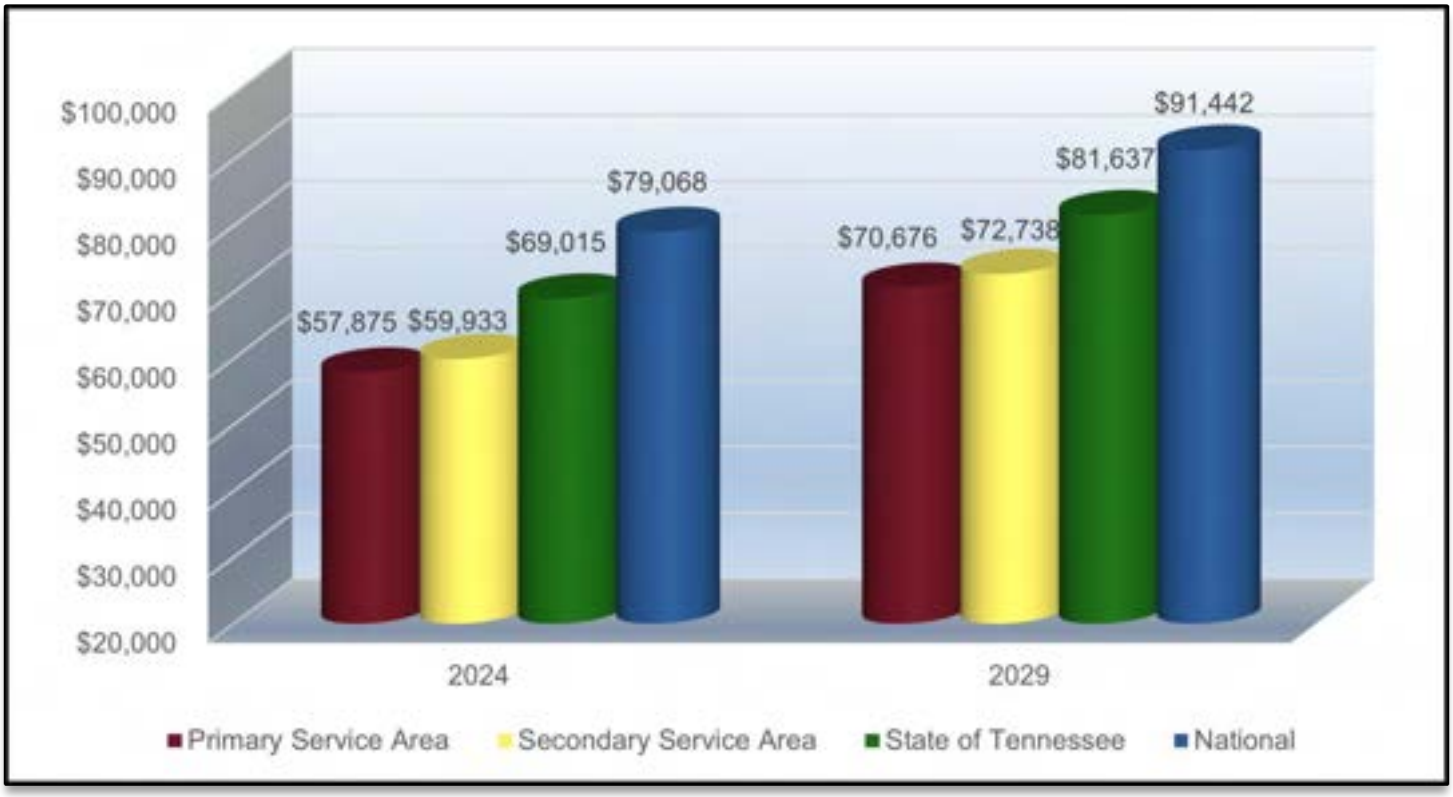
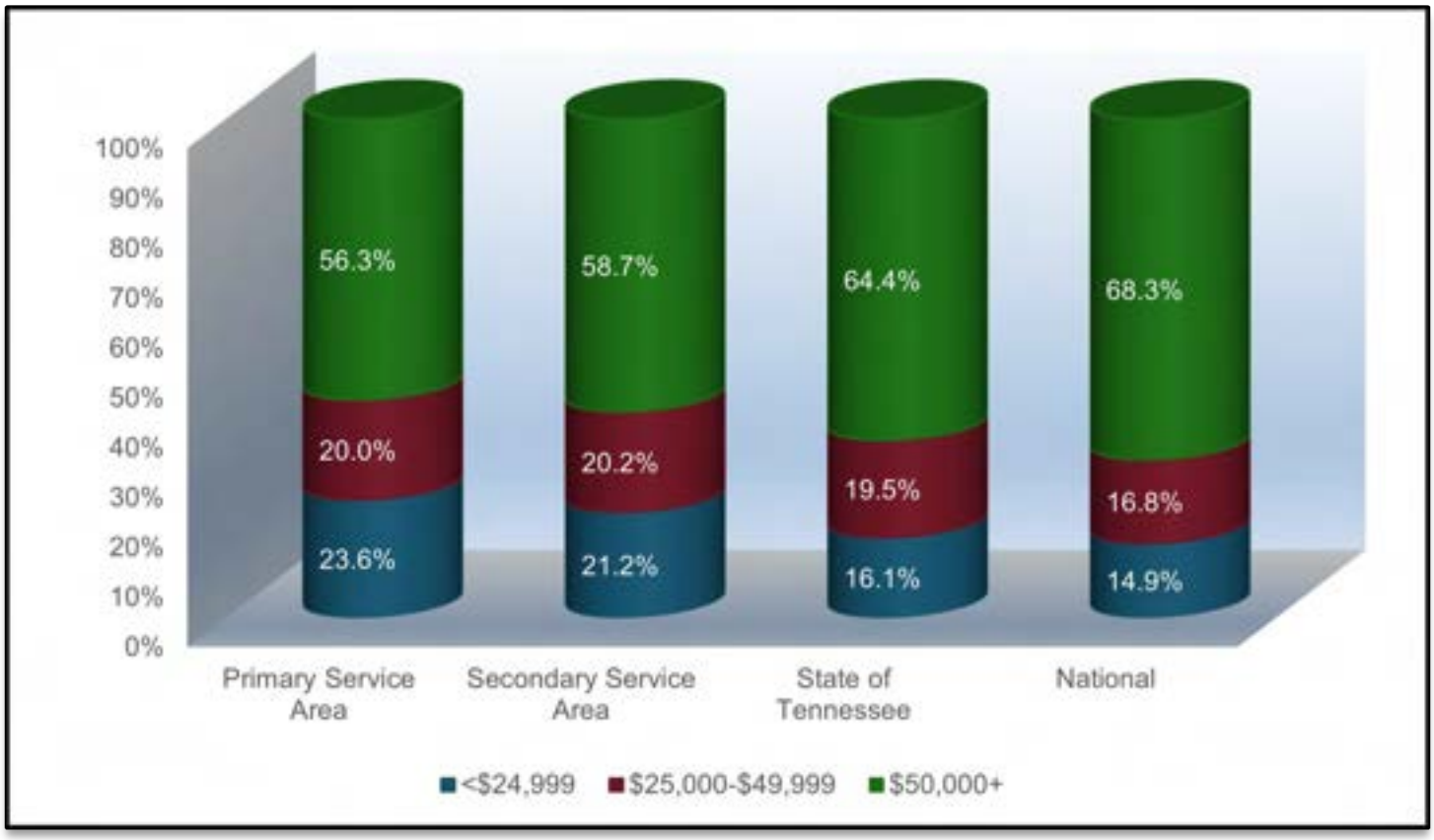


Chart B-2 - Median Household Income Distribution



Based on 2024 projections for median household income the following narrative describes the service area:

In the Primary Service Area, the percentage of households with median income over $50,000 per year is 56.3% compared to 68.3% on a national level. Furthermore, the percentage of the households in the primary service area with median income less than $25,000 per year is 23.6% compared to a level of 14.9% nationally.

In the Secondary Service Area, the percentage of households with median income over $50,000 per year is 58.7% compared to 68.3% on a national level. Furthermore, the percentage of the households in the service area with median income less than $25,000 per year is 21.2% compared to a level of 14.9% nationally.

While there is no perfect indicator of use of an aquatic facility, the percentage of households with more than $50,000 median income is a key indicator. Therefore, the Johnson City metrics are significant and indicate challenges with aquatics program affordability in both the primary and secondary service areas.

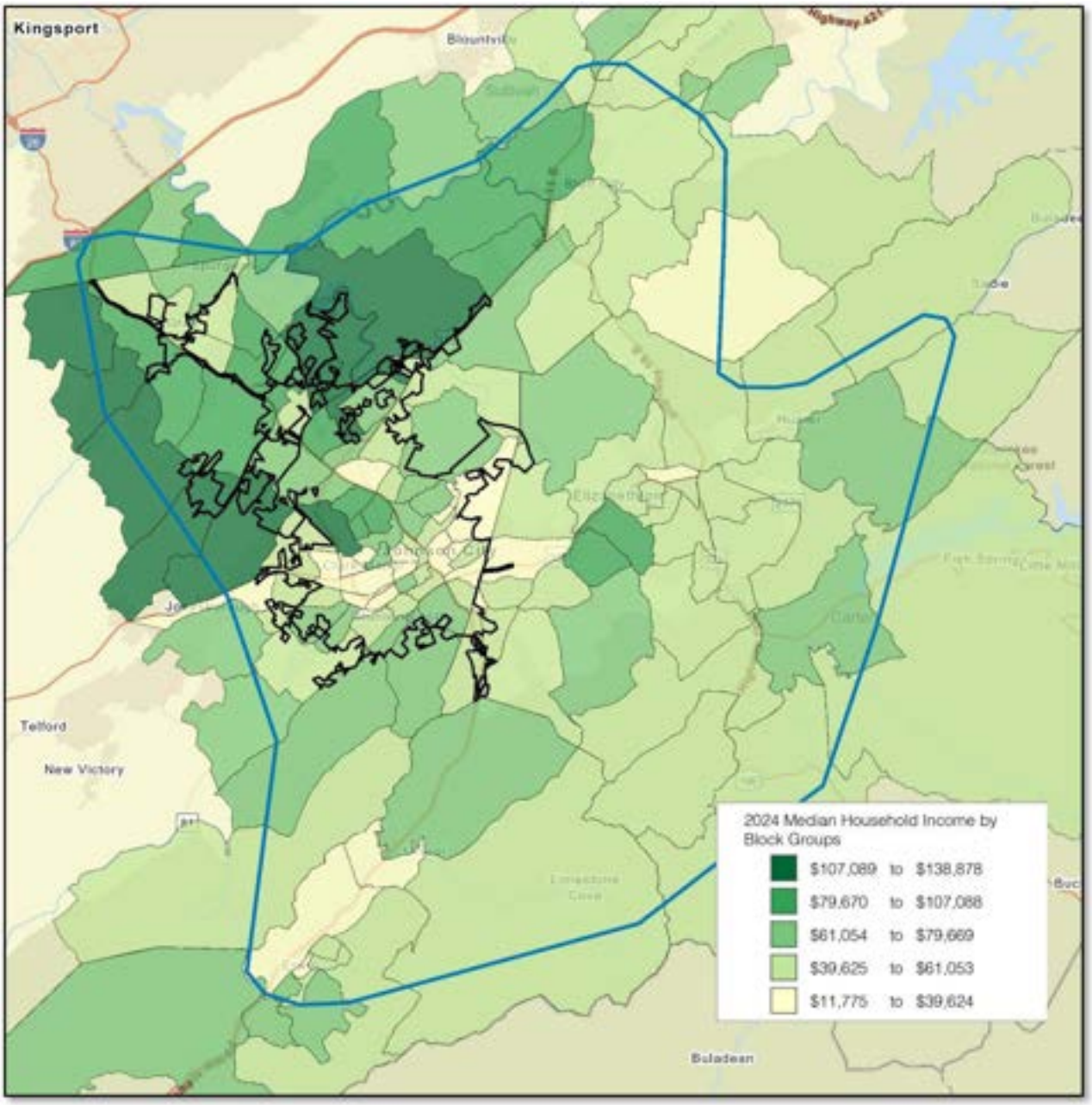


Figure 4.4: Household Income by Census Block Group Map (Ballard*King and Associates, LTD.)

In addition to taking a look at the Median Age and Median Income, it is important to examine Household Budget Expenditures. Reviewing 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 looks at that information and compares the service areas.

Table 4.5 - Household Budget Expenditures[1]:

Primary Service Area	SPI	Average Amount Spent	Percent
Housing	78	$25,507.47	32.8%
Shelter	78	$20,666.67	26.5%
Utilities, Fuel, Public Service	81	$4,840.80	6.2%
Entertainment & Recreation	79	$3,215.04	4.1%

Secondary Service Area	SPI	Average Amount Spent	Percent
Housing	76	$24,657.50	31.9%
Shelter	73	$19,595.03	25.4%
Utilities, Fuel, Public Service	85	$5,062.47	6.5%
Entertainment & Recreation	79	3,241.14	4.2%

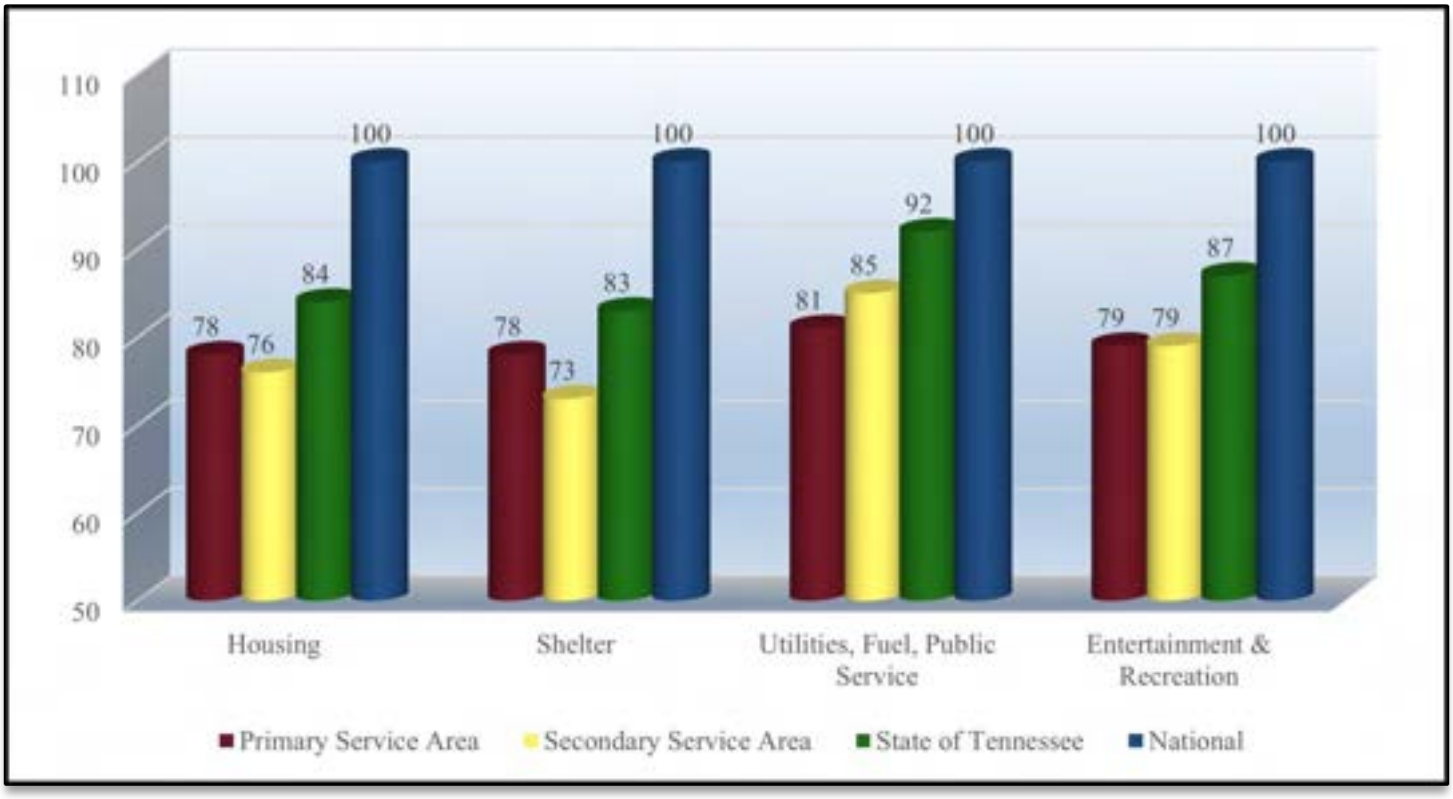
State of Tennessee	SPI	Average Amount Spent	Percent
Housing	84	$27,554.44	32.2%
Shelter	83	$22,075.64	25.8%
Utilities, Fuel, Public Service	92	$5,478.80	6.4%
Entertainment & Recreation	87	$3,559.78	4.2%

SPI: Spending Potential Index as compared to the National number of 100.
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.

1 Consumer Spending data are derived from the 2019 and 2021 Consumer Expenditure Surveys, Bureau of Labor Statistics. ESRI forecasts for 2024 and 2029.

Chart C - Household Budget Expenditures Spending



Potential Index

The consistency between the median household income and the household budget expenditures is important. It is important because it illustrates that the spending patterns of the service area are aligning with the resources available. It also demonstrates that compared to a national level of the dollars available, the money being spent in Primary and Secondary Service Areas is significantly less than the state and national levels. This could point to challenges associated with the ability to pay for programs and services offered at an aquatic facility. Subsequently, this could have an impact on the facility's ability to achieve a significant cost recovery associated with operations.

Housing Inventory

The total number of housing units in the Primary Service Area is 32,803 and 91.3% are occupied, or 29,959 housing units. The total vacancy rate for the service area is 8.7%. As a comparison, the vacancy rate nationally was 10.8%. Of the available units:

- For Rent: 1.5%
- Rented, not Occupied: 0.4%
- For Sale: 0.5%
- Sold, not Occupied: 0.2%
- For Seasonal Use: 0.8%
- Other Vacant: 5.3%

The total number of housing units in the Secondary Service Area is 39,611 and 82.4% are occupied, or 32,630 housing units. The total vacancy rate for the service area is 19.0%. As a comparison, the vacancy rate nationally was 10.8%. Of the available units:

- For Rent: 1.1%
- Rented, not Occupied: 0.3%
- For Sale: 0.6%
- Sold, not Occupied: 0.2%
- For Seasonal Use: 1.1%
- Other Vacant: 6.2%

These statistics point to a stable housing market in both service areas. It also illustrates that within the Primary and Secondary Service Areas there is a number of homes that are for seasonal and/or recreational purposes.

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.

Table 4.6 – Recreation Expenditures Spending Potential Index[2]:

Primary Service Area	SPI	Average Spent
Fees for Participant Sports	76	$101.61
Fees for Recreational Lessons	68	$116.55
Social, Recreation, Club Membership	78	$235.87
Exercise Equipment / Game Tables	70	$75.07
Other Sports Equipment	72	$7.71

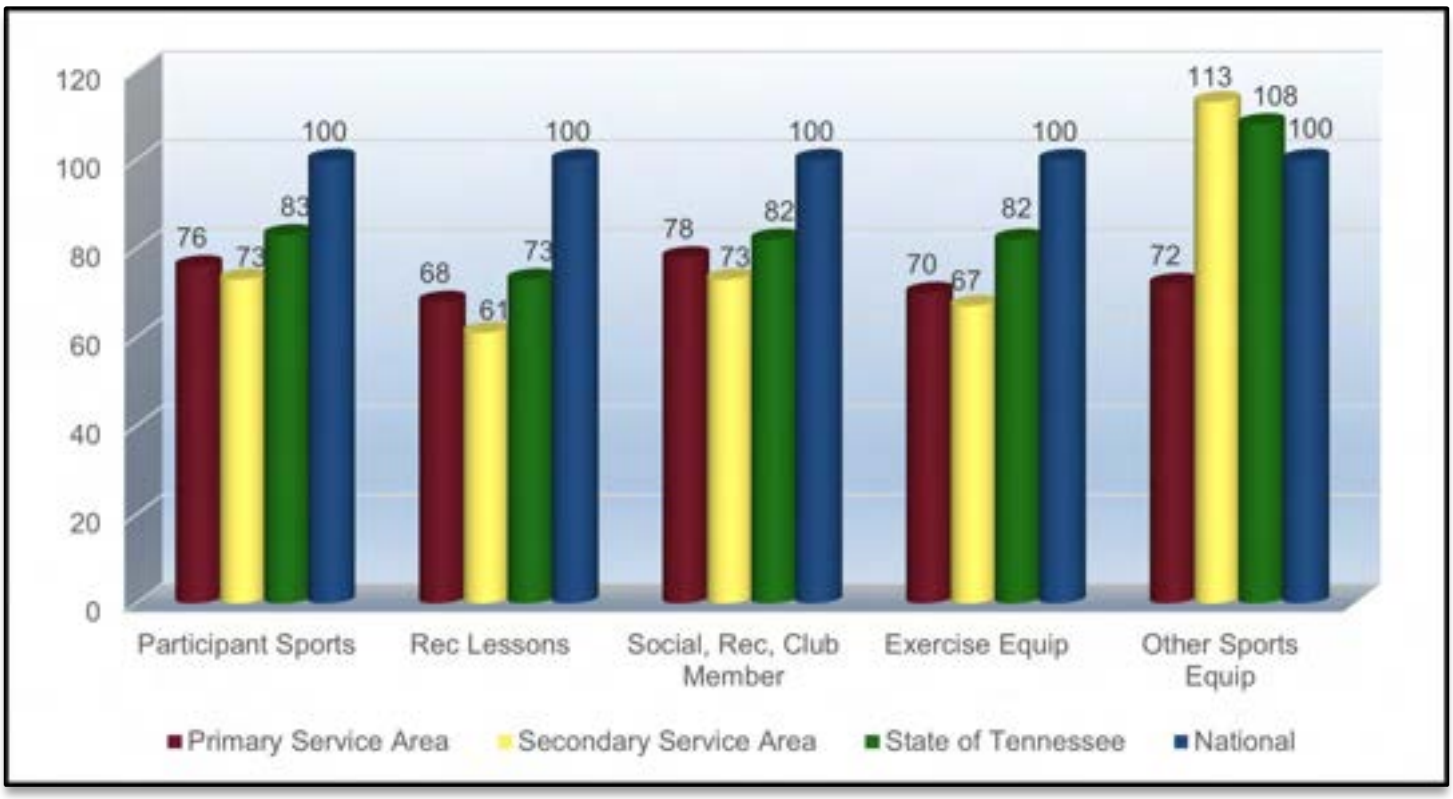
Secondary Service Area	SPI	Average Spent
Fees for Participant Sports	73	$97.30
Fees for Recreational Lessons	61	$105.37
Social, Recreation, Club Membership	73	$221.37
Exercise Equipment / Game Tables	67	$71.16
Other Sports Equipment	113	$12.03

State of Tennessee	SPI	Average Spent
Fees for Participant Sports	83	$110.21
Fees for Recreational Lessons	73	$125.60
Social, Recreation, Club Membership	82	$247.74
Exercise Equipment / Game Tables	82	$87.12
Other Sports Equipment	108	$11.50

Average Amount Spent: The average amount spent for the service or item in a year.
SPI: Spending potential index as compared to the national number of 100.

2 Consumer Spending data are derived from the 2019 and 2021 Consumer Expenditure Surveys, Bureau of Labor Statistics.

Chart D - Recreation Spending Potential Index



There is a great deal of inconsistency between median household income, household budget expenditures and new recreation and spending potential. As such, if a new facility were developed it would require that users either increase their spending in these categories or shift their spending patterns.

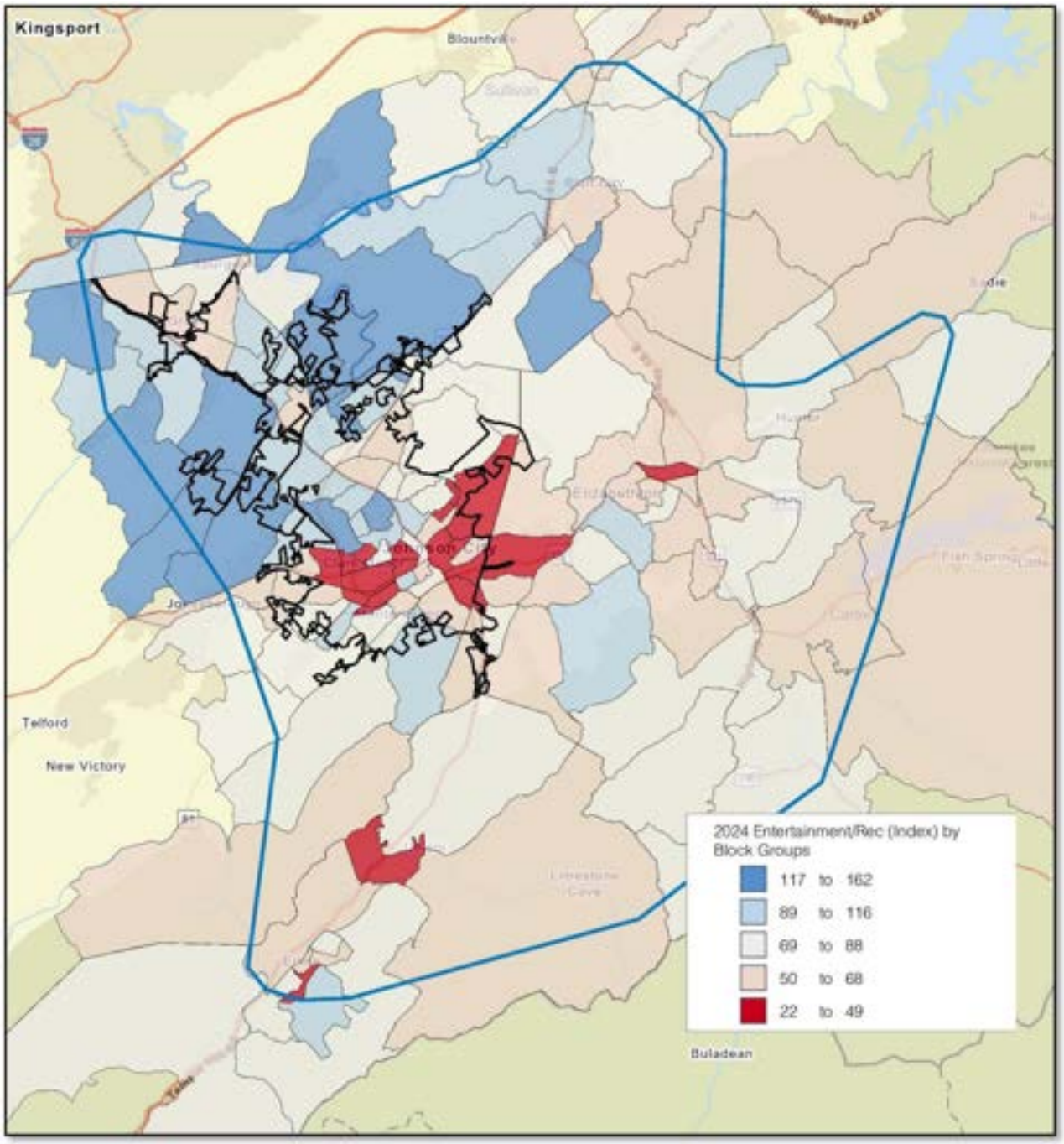


Figure 4.5: Recreation Spending Potential Index by Census Block Group Map (Ballard*King and Associates)

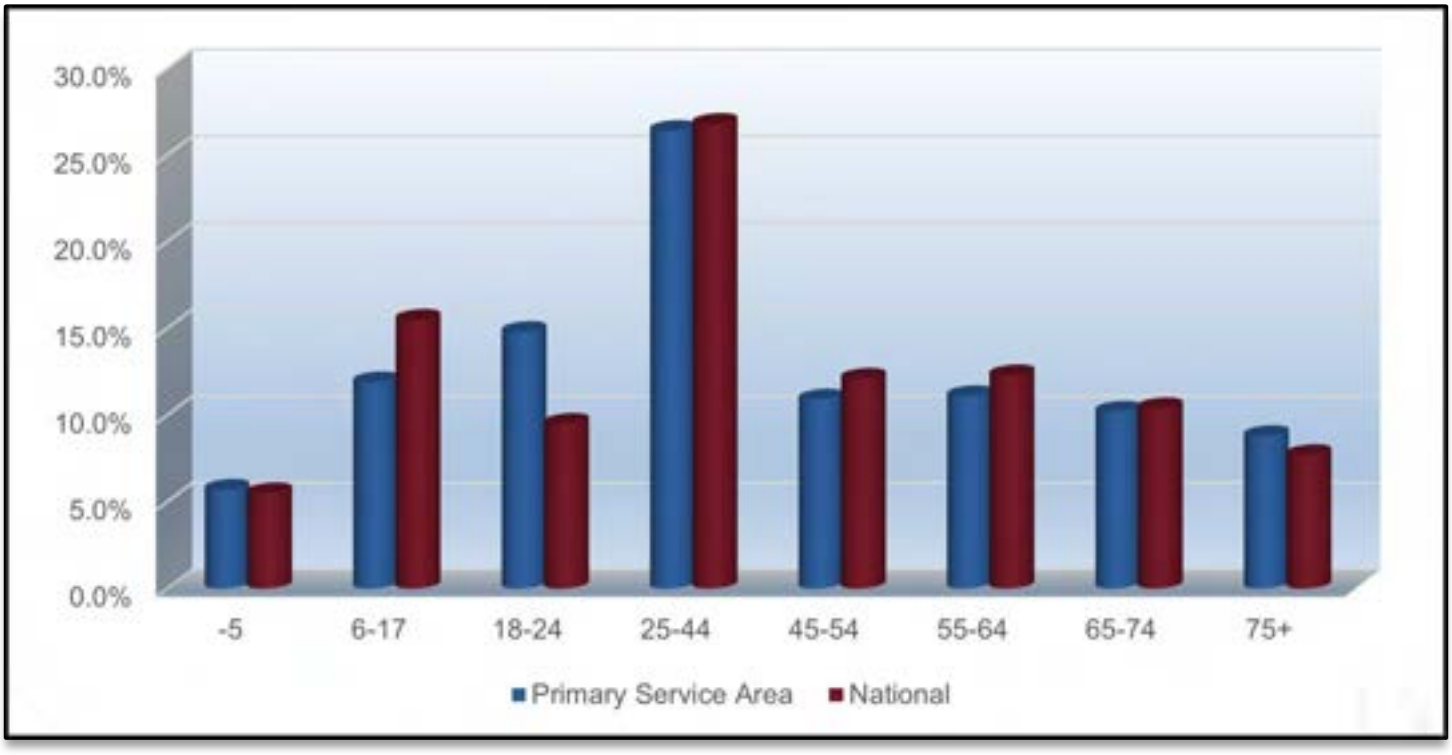
Population Distribution by Age: Utilizing census information for the Primary and Secondary Service Areas, the following comparisons are possible.

Table 4.7 - 2024 Primary Service Area Age Distribution (ESRI Estimates):

Ages	Population	% of Total	National Population	Difference
0-5	4,233	5.7%	5.5%	+0.2%
6-17	8,977	11.9%	15.5%	-3.6%
18-24	11,022	14.8%	9.5%	+5.3%
25-44	19,470	26.4%	26.8%	-0.4%
45-54	8,042	10.9%	12.1%	-1.2%
55-64	8,208	11.1%	12.3%	-1.2%
65-74	7,531	10.2%	10.4%	-0.2%
75+	6,502	8.8%	7.7%	+1.1%

Population: 2024 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.

Chart E - 2024 Primary Service Area Age Group Distribution



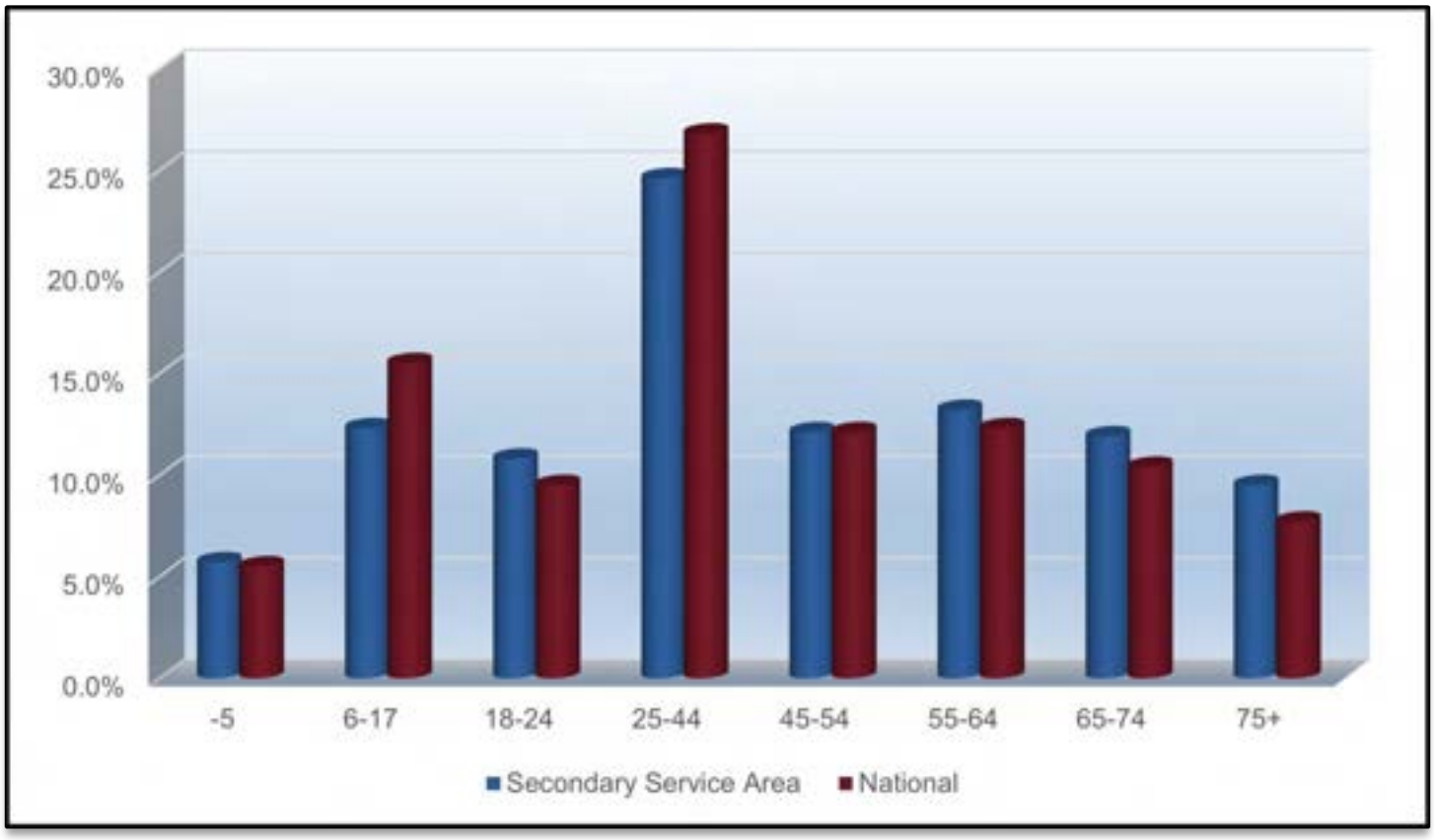
The demographic makeup of the Primary Service Area, when compared to the characteristics of the national population, indicates that generally minor variances. The greatest positive variance is in the 18-24 age group with +5.3%, while the greatest negative variance is in the 6-17 age group with -3.6%.

Table 4.8 - 2024 Secondary Service Area Age Distribution (ESRI Estimates):

Ages	Population	% of Total	National Population	Difference
0-5	10,046	5.7%	5.5%	+0.02%
6-17	22,210	12.3%	15.5%	-3.2%
18-24	19,408	10.8%	9.5%	+1.3%
25-44	44,126	24.6%	26.8%	-2.2%
45-54	21,910	12.1%	12.1%	+0.0%
55-64	23,748	13.2%	12.3%	+0.9%
65-74	21,470	11.9%	10.4%	+1.5%
75+	17,102	9.5%	7.7%	+1.8%

Population: 2024 census estimates in the different age groups in the Secondary Service Area.
% of Total: Percentage of the Secondary Service Area population in the age group.
National Population: Percentage of the national population in the age group.
Difference: Percentage difference between the Secondary Service Area population and the national population.

Chart F - 2024 Secondary Service Area Age Group Distribution



The demographic makeup of the Secondary Service Area, when compared to the characteristics of the national population, indicates significant consistency. The greatest positive variance is in the 75+ age group with +1.8%, while the greatest negative variance is in the 5-17 age group at 3.2%.

Population Distribution by Age Over Time: Utilizing census information from the Primary and Secondary Service Area, the following comparisons are possible.

Table 4.9 – 2024 Primary Service Area Population Estimates (U.S. Census Information and ESRI):

Ages	2020 Census	2024 Projection	2029 Projection	Percent Change	Percent Change National
0-5	4,119	4,233	4,283	+4.0%	+1.3%
6-17	9,324	8,977	8,614	-7.6%	-7.5%
18-24	11,355	11,022	10.792	-5.0%	+0.7%
25-44	17,721	19,470	19,912	+12.4%	+6.7%
45-54	7,925	8,042	8,166	+3.0%	+2.8%
55-64	8,295	8,208	8,030	-3.2%	-8.7%
65-74	6,914	7,531	8,072	+16.8%	+14.8%
75+	5,399	6,502	8,002	48.2%	+39.7%

Chart G – Primary Service Area Population Growth

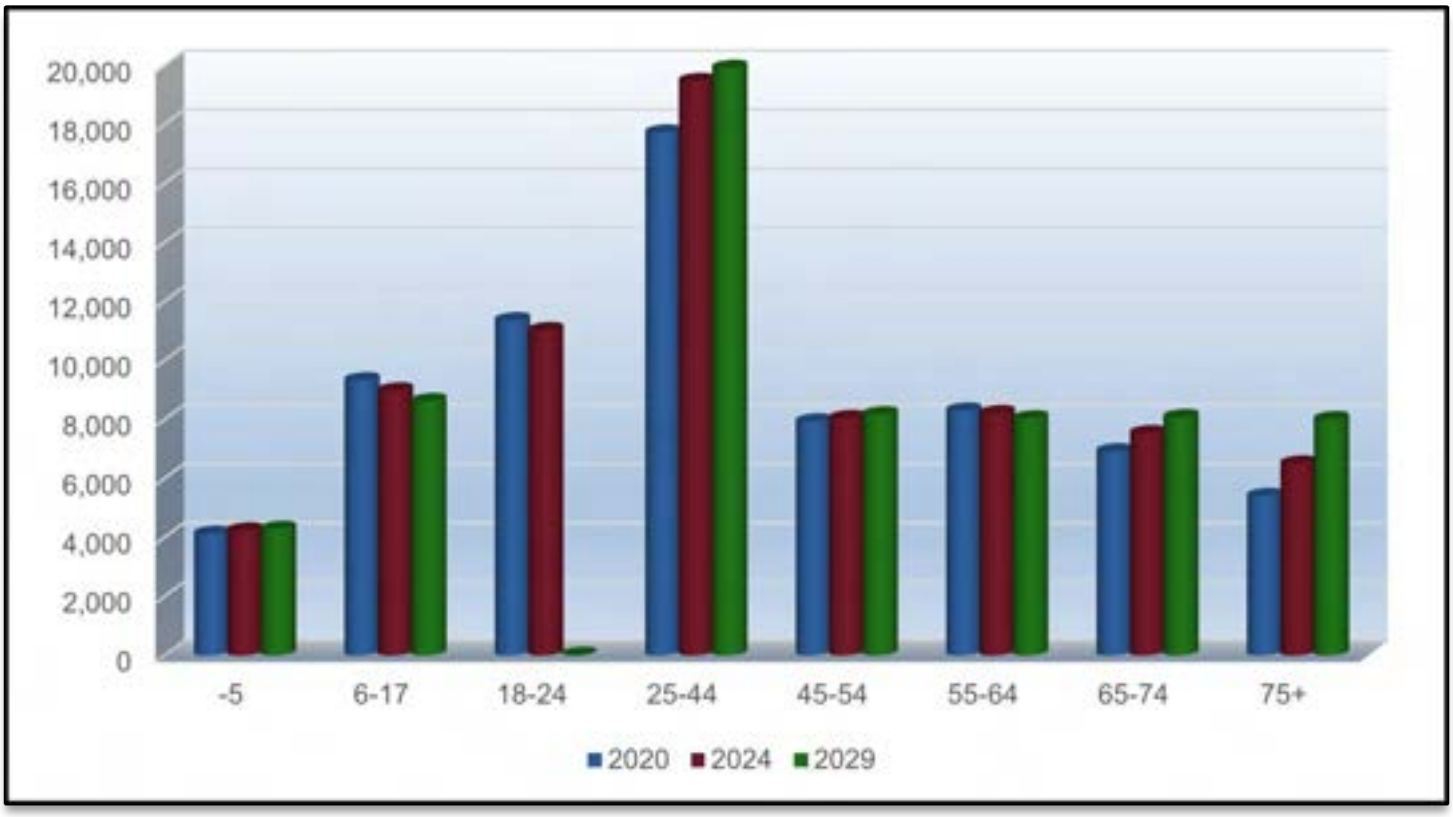


Table 4.9 illustrates the growth or decline in age group numbers from the 2020 census until the year 2029. It is projected that three age categories will see a decrease in population (5-17, 18-24, 55-64). The population of the United States is aging, and it is not unusual to find negative growth numbers 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.

Table 4.10 – 2024 Secondary Service Area Population Estimates (U.S. Census Information and ESRI):

Ages	2020 Census	2024 Projection	2029 Projection	Percent Change	Percent Change National
0-5	9,953	10,046	10,020	+0.7%	+1.3%
6-17	22,988	22,210	21,110	-8.2%	-7.5%
18-24	19,928	19,408	18,560	-6.9%	+0.7%
25-44	41,456	44,126	45,833	+10.6%	+6.7%
45-54	22,497	21,910	21,000	-6.7%	+2.8%
55-64	24,262	23,748	23,096	-4.8%	-8.7%
65-74	20,593	21,470	22,773	+10.6%	+14.8%
75+	14,692	17,102	20,449	+39.2%	+39.7%

Chart H – Secondary Service Area Population Growth

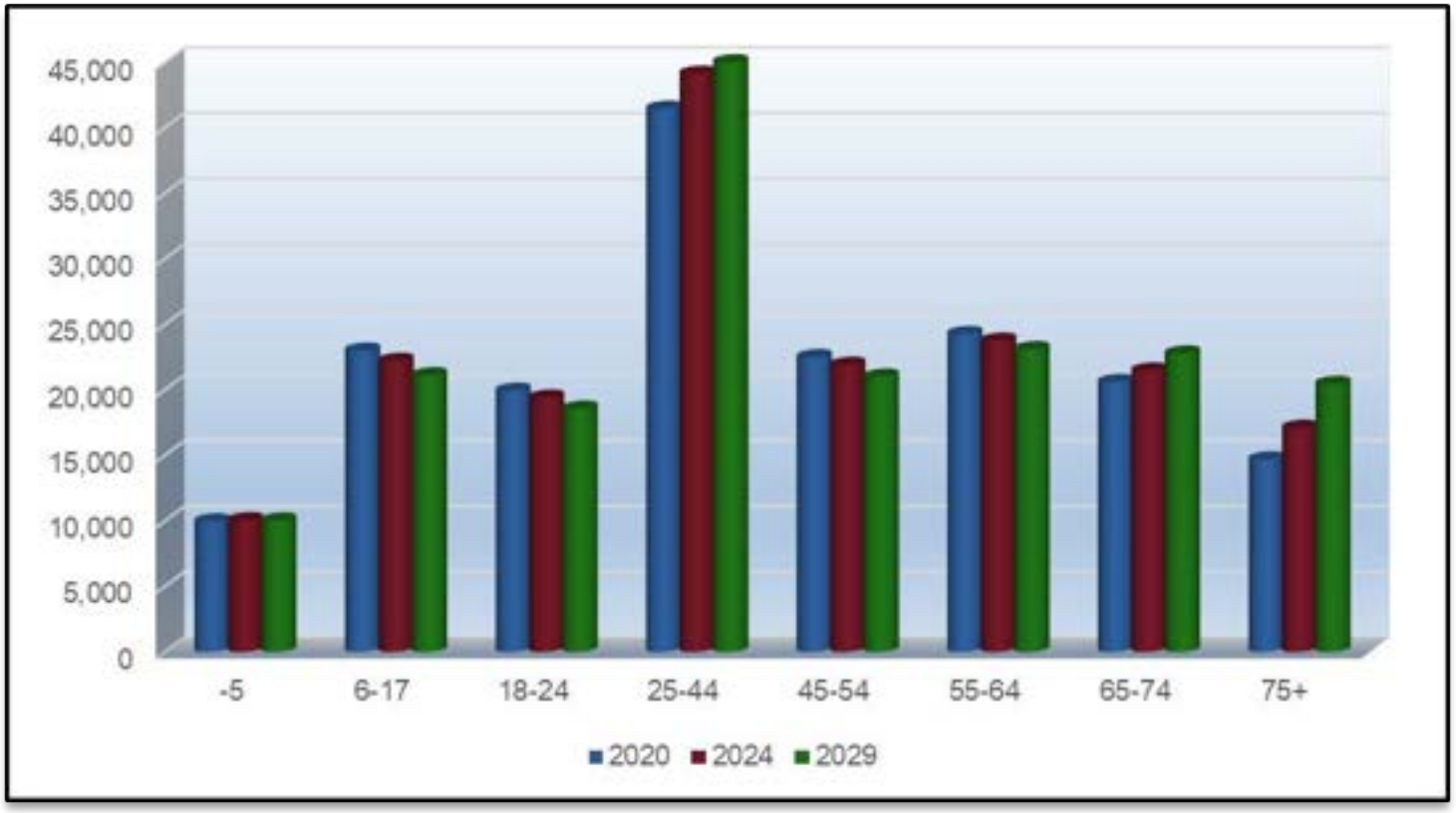


Table 4.10 illustrates the growth or decline in age group numbers from the 2020 census until the year 2029. It is projected that age categories -5, 25-44, 65-74, and 75+ will see an increase in population. Age categories 5-17, 18-24, 45-54, 55-64 will see a decrease. Overall, the population of the United 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.

Below is listed the distribution of the population by race and ethnicity for the Primary and Secondary Service Areas for 2024 population projections. Those numbers were developed from 2020 Census Data.

Table 4.11 – Primary Service Area Ethnic Population and Median Age 2024 (Source – U.S. Census Bureau and ESRI)

Ethnicity	Total Population	Median Age	% of Population	% of TN Population
Hispanic	5,056	25.0	6.85	7.6%

Table 4.12 – Primary Service Area by Race and Median Age 2024 (Source – U.S. Census Bureau and ESRI):

Race	Total Population	Median Age	% of Population	% of TN Population
White	59,482	39.7	80.4%	71.4%
Black	4,872	30.9	6.6%	15.7%
American Indian	301	32.2	0.4%	0.4%
Asian	1,597	34.1	2.2%	2.1%
Pacific Islander	45	40.6	0.1%	0.1%
Other	2,265	24.5	3.1%	3.9%
Multiple	5,423	26.3	7.3%	6.4%

2024 Primary Service Area Total Population: 62,088 Residents

Chart I – 2024 Primary Service Area Population by Non-White Race

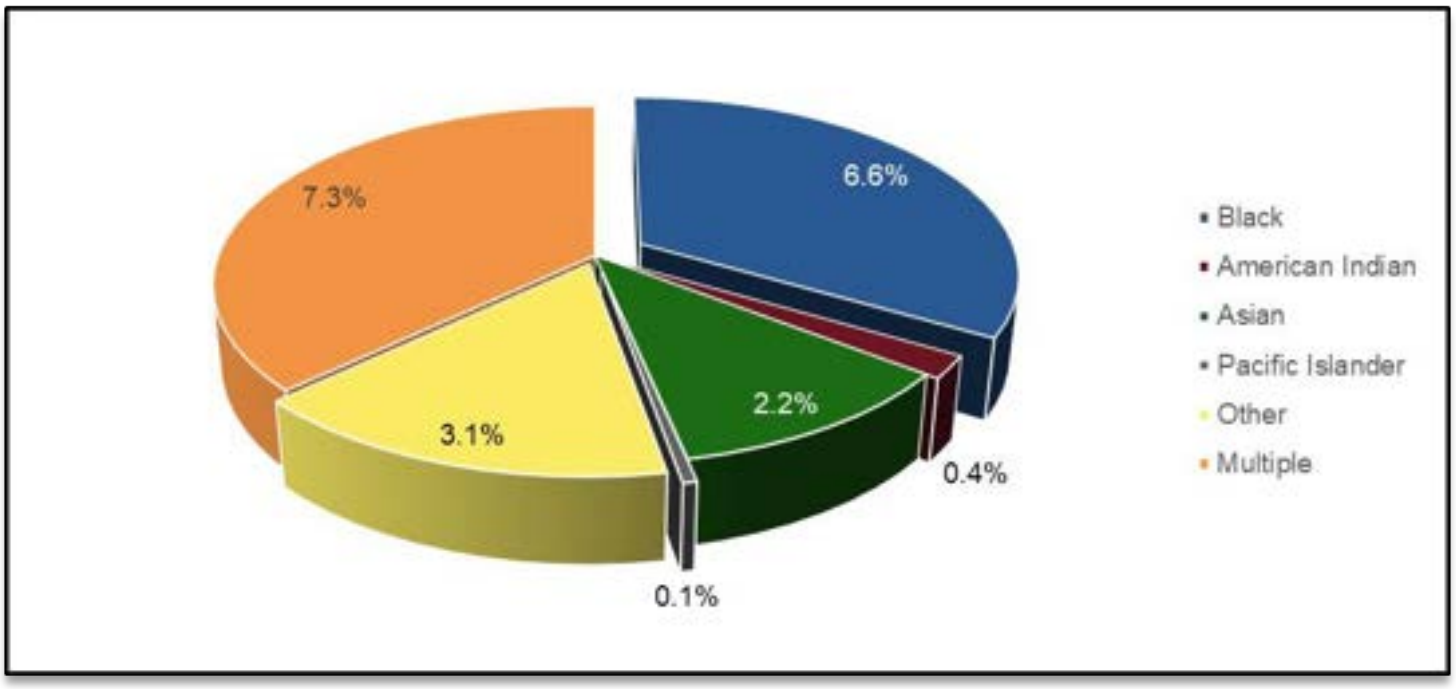


Table 4.13 – Secondary Service Area Ethnic Population and Median Age 2024 (Source – U.S. Census Bureau and ESRI):

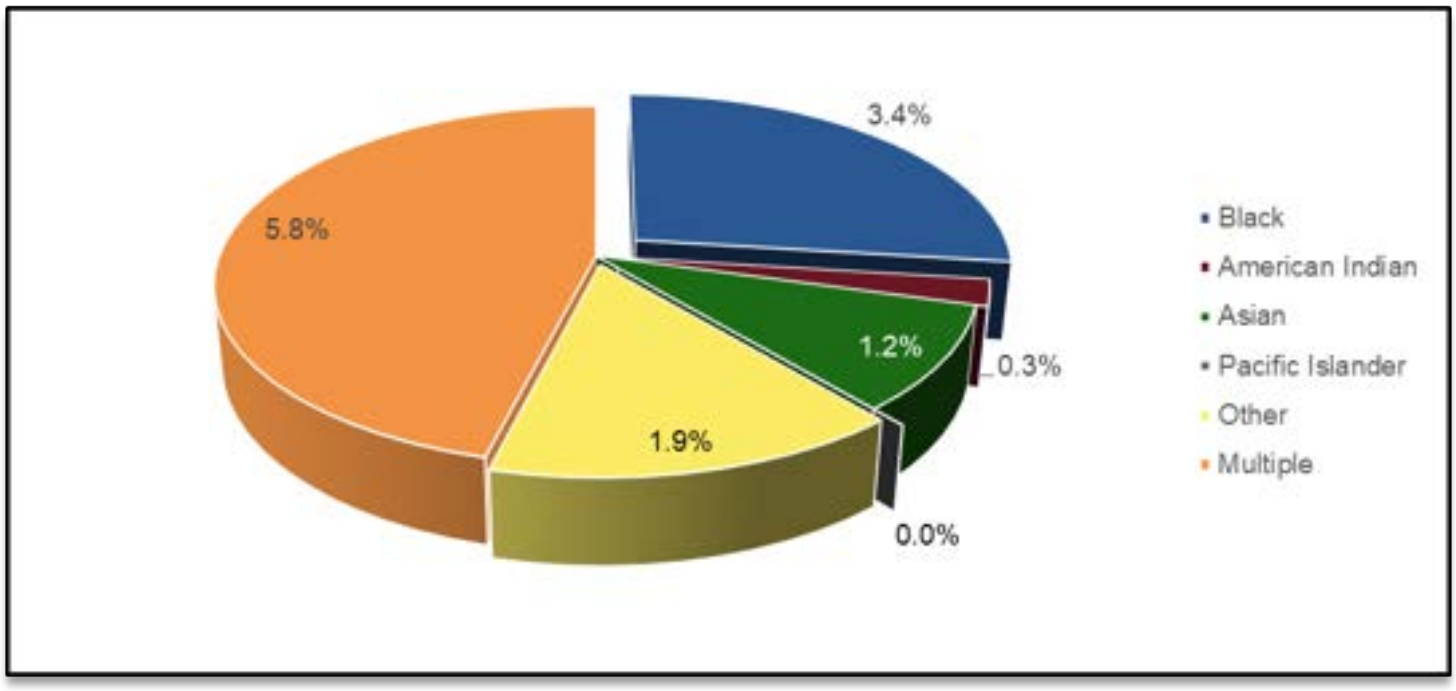
Ethnicity	Total Population	Median Age	% of Population	% of TN Population
Hispanic	8,656	26.2	4.3	7.6%

Table 4.14 – Secondary Service Area by Race and Median Age 2024 (Source – U.S. Census Bureau and ESRI):

Race	Total Population	Median Age	% of Population	% of TN Population
White	156,051	44.3	87.3%	71.4%
Black	6,278	32.4	3.4%	15.7%
American Indian	676	38.9	0.3%	0.4%
Asian	2,309	35.8	1.2%	2.1%
Pacific Islander	71	39.2	0.0%	0.1%
Other	3,733	26.5	1.9%	3.9%
Multiple	10,905	28.9	5.8%	6.4%

2024 Secondary Service Area Total Population: 91,178 Residents

Chart J – 2024 Secondary Service Area Population by Non-White Race



4.4 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 2020 Census, the tapestry segmentation has remained stable as neighborhoods have evolved.

There is value including this information for Johnson City. The data assists the organization in understanding the consumers/constituents in their service area and supply them with the right products and services.

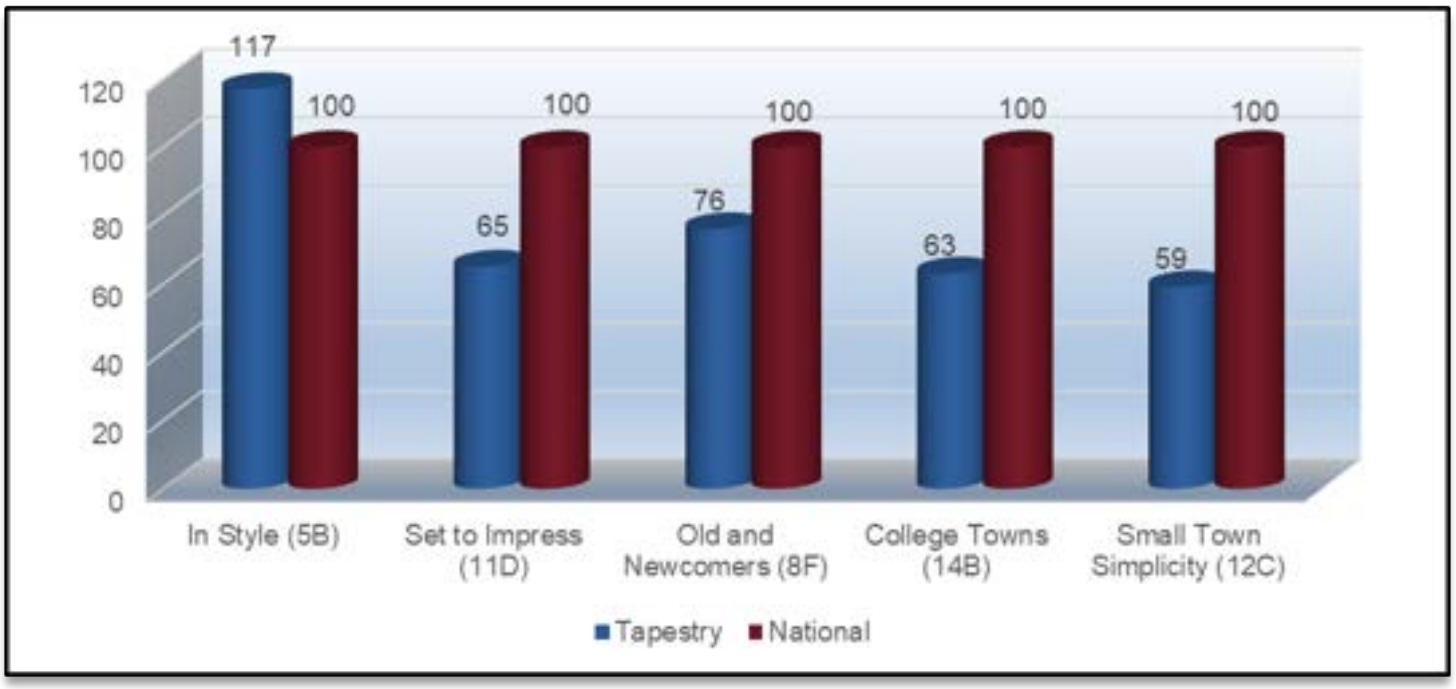
The Tapestry segmentation system classifies U.S. neighborhoods into 65 unique market segments. Neighborhoods are sorted by more than 60 attributes including income, employment, home value, housing types, education, household composition, age & other key determinates of consumer behavior.

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

Table 4.15 – Primary Service Area Tapestry Segment Comparison (ESRI estimates)

	Primary Service Area		Demographics	
	Percent	Cumulative Percent	Median Age	Median Household Income
In Style (5B)	15.8%	15.8%	42.0	$73,000
Set to Impress (11D)	13.6%	29.4%	33.9	$32,800
Old and Newcomers (8F)	12.6%	42.0%	39.4	$44,900
College Towns (14B)	9.6%	51.6%	24.5	$32,200
Small Town Simplicity (12C)	9.1%	60.7%	40.8	$31,500

Chart K – Primary Service Area Tapestry Segment Entertainment Spending:

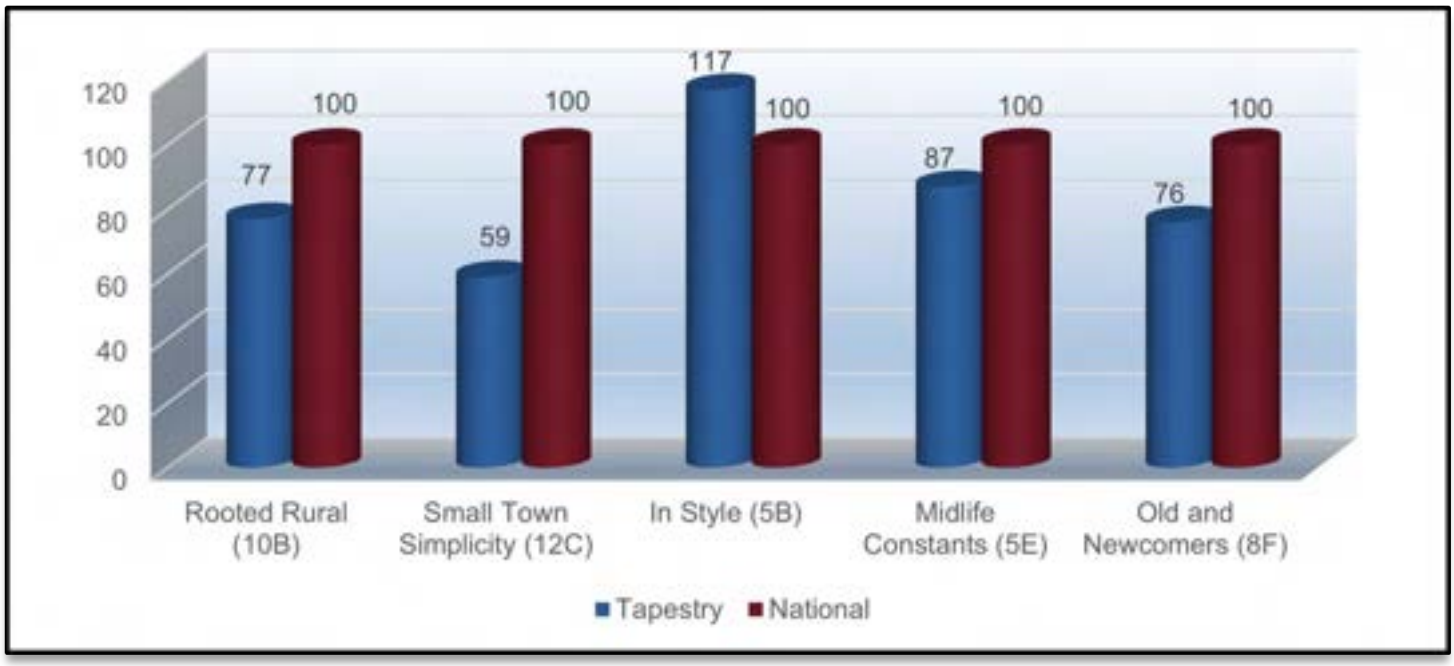


- In Style (5B) – This group embraces the urban lifestyle. They are fully connected to digital devices and support the arts and charities/causes. Most do not have children. Meticulous planners. Residents stay fit by exercising, eating a healthy diet to control their weight, buying low-fat foods and taking vitamins.
- Set to Impress (11D) – Residents living alone but continue to have close family ties. Very conscious of the image. Enjoy popular music and quick meals. High use of internet and social media. Always looking for a deal. Leisure activities include concerts and visiting zoo.
- Old and Newcomers (8F) – Singles living on a budget. Just beginning careers or taking college/adult education classes. Strong supporters of environmental organizations. Price aware. Residents have a strong sense of community. They volunteer for charities, help fundraise, and recycle.
- College Towns (14B) – Half of this demographic is enrolled in college. Although they have busy schedules, they still schedule time for socializing and sports. Buy impulsively and all about new experiences.
- Small Town Simplicity (12C) – This segment includes young families and senior householders that are bound by community ties. The lifestyle is down-to-earth and semi-rural, with television for entertainment and news, and emphasis on convenience for both young parents and senior citizens. Almost 1 in 4 households is below the poverty level. This is an older market, with almost half of the householders aged 55 years or older. There is a significant Black (13.1%) population in this segment. Hunting, fishing, and target shooting are favorite pastimes.

Table 4.16 – Secondary Service Area Tapestry Segment Comparison (ESRI estimates)

	Secondary Service Area		Demographics	
	Percent	**Cumulative Percent**	**Median Age**	**Median Household Income**
Rooted Rural (10B)	10.6%	10.6%	45.2	$42,300
Small Town Simplicity (12C)	10.0%	20.6%	40.8	$31,500
In Style (5B)	9.4%	30.0%	42.0	$73,000
Midlife Constants (5E)	8.0%	38.0%	47.0	$53,200
Old and Newcomers (8F)	7.0%	45.0%	39.4	$44,900

Chart L – Secondary Service Area Tapestry Segment Entertainment Spending:



- Rooted Rural (10B) – Commonly employed in the forestry industry, this group enjoys time outdoors mainly hunting and fishing. Heavily influenced by their faith and family history. Thrifty shoppers looking at necessity rather than desire.
- Small Town Simplicity (12C) – This segment includes young families and senior householders that are bound by community ties. The lifestyle is down-to-earth and semi-rural, with television for entertainment and news, and emphasis on convenience for both young parents and senior citizens. Almost 1 in 4 households is below the poverty level. This is an older market, with almost half of the householders aged 55 years or older. There is a significant Black (13.1%) population in this segment. Hunting, fishing, and target shooting are favorite pastimes.
- In Style (5B) – This group embraces the urban lifestyle. They are fully connected to digital devices and support the arts and charities/causes. Most do not have children. Meticulous planners. Residents stay fit by exercising, eating a healthy diet to control their weight, buying low-fat foods and taking vitamins.
- Midlife Constants (5E) – These residents are seniors, at or approaching retirement, with below average labor force participation and above average net worth. Their lifestyle is more country than urban. They are generous, but not spendthrifts. Leisure activities including scrapbooking, movies at home, reading, fishing and golf.
- Old and Newcomers (8F) – Singles living on a budget. Just beginning careers or taking college/adult education classes. Strong supporters of environmental organizations. Price aware. Residents have a strong sense of community. They volunteer for charities, help fundraise, and recycle.

4.5 Demographic Summary

The following summarizes the demographic characteristics of the service areas.

- The population within the Primary Service Area is such that it would likely support an indoor aquatic center; however, the Secondary Service Area cannot likely be counted on for a great deal of support. B*K typically looks for a population of greater than 50,000 within the Primary service area as a key indicator for demand and financial success.
- The median age in the Primary Service Areas is slightly lower than the State and National age of approximately 36.0. A lower median age points to families with children, which are significant participants in recreation and aquatic programs.
- Both Service Areas have a lower percentage of households with children (24%-25%) than both the state and national average of about 30%-32%.
- The Primary Service Area has a significantly lower median household income (approx. $58,000) than the Secondary Service Area (approximately $60,000), the state of Tennessee ($69,000) and the national average of approximately $79,000. Income level is important when it comes to price point for programs and services, subsequently the cost recovery level of a facility.
- The Household Budget Expenditures and the Recreation Spending Potential are relatively consistent with the median household income. The consistency is important for the financial performance of the future facility. It is also important to note, specific to recreation, that those dollars are currently being spent with other providers by area residents.
- The Primary Service Area median household income is approximately 26.8% lower than the national average while household budget expenditures are 22.0%. This equates to a lower cost of living. In addition, the spending on Entertainment and Recreation is higher than other household expenditures indicating the value residents place on recreation.
- The age distribution in the Primary Service Area is such that 17.6% is under the age of 18 and 30.1% is over the age of 55. These are two age groups that will be significant users of aquatic programs and services. Additionally, it is projected that all age categories are projected to increase through 2029.
- Two of the three largest tapestry segments within the Primary Service Area, which account for 42% of the population, all indicate an interest in Recreation with Entertainment Spending at or below the national average.
- The Recreation Spending Index is lower significantly lower than the national level of 100 for the Primary Service Area.

4.6 Participation Figures

Market Potential Index for Adult Participation: In addition to examining the participation numbers for various outdoor activities through the National Sporting Goods Association, the 2023 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 a variety of activities that could be accommodated in an aquatic facility.

Table 4.17 – Market Potential Index (MPI) for Participation in Activities in Primary Service Area

Adults Participated In	Expected Number of Adults	Percent of Population	MPI
Aerobics	4,278	7.0%	92
Exercise / Walking	19,541	32.2%	96
Swimming	9,732	16.0%	100

Table 4.18 – Market Potential Index (MPI) for Participation in Activities in Secondary Service Area

Adults Participated In	Expected Number of Adults	Percent of Population	MPI
Aerobics	9,335	6.3%	82
Exercise / Walking	46,250	31.3%	96
Swimming	23,154	15.7%	100

Expected # of Adults: Number of adults, 18 years of age and older, participating in the activity in the 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.

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

In addition to analyzing the demographic realities of the service areas, it is possible to project possible participation in recreation and sport activities.

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. The data is collected in one year and the report is issued in May of the following year. This information provides the data necessary to overlay rate of participation onto the Primary, and Secondary Service Areas to determine market potential.

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, and Secondary Service Areas then provides an idea of the market potential for a variety of recreation activities.

Table 4.19 – Participation Rates in the Primary Service Area

Activities	Age	Income	Region	Nation	Average
Aerobics	15.3%	10.6%	13.2%	15.8%	13.7%
Exercise / Walking	35.6%	28.6%	32.6%	37.3%	33.5%
Swimming	14.0%	7.6%	11.1%	16.4%	12.3%

Table 4.20 – Participation Rates in the Secondary Service Area

Activities	Age	Income	Region	Nation	Average
Aerobics	15.8%	10.6%	13.2%	15.8%	13.8%
Exercise / Walking	36.7%	28.6%	32.6%	37.3%	33.8%
Swimming	13.9%	7.6%	11.1%	16.4%	12.2%

Age: Participation based on individuals ages 7 & Up of the Service Area.
Income: Participation based on the 2024 estimated median household income in the Service Area.
Region: Participation based on regional statistics (East South Central).
National: Participation based on national statistics.
Average: Average of the four columns.

Anticipated Participation Number

Utilizing the average percentage from Table B above plus the 2020 census information and census estimates for 2024 and 2029 (over age 7) the following comparisons are available.

Table 4.21 – Participation Growth or Decline for Indoor Activities in Primary Service Area

Activities	Average	2020 Population	2024 Population	2029 Population	Difference
Aerobics	13.7%	9,087	9,474	9,732	645
Exercise / Walking	33.5%	22,187	23,132	23,762	1,575
Swimming	12.3%	8,128	8,474	8,705	577

Table 4.22 – Participation Growth or Decline for Indoor Activities in Secondary Service Area

Activities	Average	2020 Population	2024 Population	2029 Population	Difference
Aerobics	13.8%	22,796	23,287	23,695	899
Exercise / Walking	33.8%	55,665	56,865	57,861	2,196
Swimming	12.2%	20,151	20,586	20,946	795

Note: These figures do not necessarily translate into attendance figures for various activities or programs. The "Did Not Participate" statistics refers to all 58 activities outlined in the NSGA 2023 Survey Instrument.

Table 4.23 – Participation Frequency

	Frequent	Occasional	Infrequent
Swimming Frequency	110+	25-109	6-24
Swimming Percentage of Population	4.2%	29.%	66.3%

The NSGA classifies activities based on how often individuals participate.

In Table 4.23 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 4.24 – Participation Numbers in Primary Service Area

	Frequent	Occasional	Infrequent	Total
Swimming Frequency	125	67	15	
Population	356	2,491	5,619	
Visits	44,491	166,930	84,279	**295,699**

Table 4.25 – Participation Numbers in Secondary Service Area

	Frequent	Occasional	Infrequent	Total
Swimming Frequency	125	67	15	
Population	856	6,052	13,648	
Visits	108,075	405,498	204,725	**718,299**

Table 4.24 takes the frequency information one step further and identifies the number of times individuals may participate in the activity, applies the percentage from Table 4.21 to the 2024 swimming population (8,474) and then gives a total number of swimming days. This would indicate that a total of 295,699 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 NSGA identifies participation in all activities that they track as frequent, occasional, and infrequent as illustrated in Table 4.23 through 4.25. It is also important to further identify the uses of those categories.

Frequent Swimmers (4.2% of total swimming population) – These participants are largely the individuals participating in programs like club swimming. 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 (29.4% of total swimming population) – These participants are 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 make your way to 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) and shallow water (less than 4 feet up to a zero-depth entry).

Infrequent Swimmers (66.3% of total swimming population) – These participants are strictly interested in the social and entertainment aspects of swimming. They typically do not 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 spend time at.

NSGA also collects information based on purpose of participation. Within activities, participation is either categorized as “organized” or “unorganized.” Organized activities could include swim lessons, dive lessons, swim team, water polo team, etc. Unorganized activities could include water walking, lap swimming, open/free swim, etc. The percentages can be applied to the total number of swimmer days to determine the market for organized and unorganized activities.

Table 4.26 – NSGA Participation Purpose

Primary Service Area	Percentage	Number of Swimmer Days
Organized	16%	47,312
Unorganized	84%	248,388

Primary Service Area	Percentage	Number of Swimmer Days
Organized Only	4%	11,828
Recreational Only	70%	206,990
Both	26%	76,882

Cross Participation: The table below identifies sports or activities that participants in swimming also participate in. For organizations that want to maximize revenue generation this information becomes important as it informs other types of activities they may want to consider offering.

Table 4.27 – Cross Participation for Swimming

Activity	% Participation in	Total US Participation	Index
Exercise / Walking	46.4%	36.0%	87
Bicycle Riding	39.2%	7.9%	192
Hiking	37.2%	16.9%	149
Running / Jogging	31.8%	14.1%	153
Exercising with Equipment	28.7%	17.3%	113
Workout At Club	25.0%	9.5%	179
Basketball	23.9%	7.9%	206
Weightlifting	20.8%	12.0%	118
Yoga	19.5%	10.0%	132
Soccer	17.4%	2.7%	235

% Participating in: % of swimmers that also participated in this activity.
Total US Participation: % of the US population that participated in this activity.
Index: An index of 100 represents the average as compared to the total US population.

This would indicate that the “swimming” community is very active and has a high level of participation in activities outside of swimming.

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 2023 survey, the following comparisons are possible.

Table 4.28 – Primary Service Area Comparison of National, African American and Hispanic Participation Rates

Activity	Primary Service Area	National Participation	African American Participation	Hispanic Participation
Aerobics	13.7%	15.8%	13.1%	17.8%
Exercise / Walking	33.5%	37.3%	24.4%	32.1%
Swimming	12.3%	16.4%	8.6%	18.2%

There is a not significant Black population (6.6%) or Hispanic population (6.8%) in the Primary Service Area. As such, these numbers may not play a factor with regards to overall participation.

Table 4.29 – Secondary Service Area Comparison of National, African American and Hispanic Participation Rates

Activity	Secondary Service Area	National Participation	African American Participation	Hispanic Participation
Aerobics	15.8%	15.8%	13.1%	17.8%
Exercise / Walking	36.7%	37.3%	24.4%	32.1%
Swimming	13.9%	16.4%	8.6%	18.2%

There is a not significant Black population (3.5%) or Hispanic population (4.8%) in the Primary Service Area. As such, these numbers may not play a factor with regards to overall participation.

National Summary of Sports Participation

The following chart summarizes participation for indoor activities utilizing information from the 2023 National Sporting Goods Association survey.

Table 4.30 – Sports Participation Summary

Sport	National Rank[3]	National Participation (in millions)
Exercise - Walking	1	113.9
Cardio Fitness	2	92.9
Strength Training	3	73.4
Exercising w/ Equipment	4	58.2
Swimming	6	50.2
Running/Jogging	7	45.0
Bicycle Riding	8	44.6
Weightlifting	10	38.8
Yoga	11	31.7
Workout at Club	13	29.6
Basketball	15	23.2
Billiards / Pool	16	22.3
Table Tennis / Ping Pong	23	12.5
Volleyball	26	11.7
Pickleball	38	6.4
Pilates	39	6.2
Gymnastics	43	5.3
Martial Arts / MMA	44	5.3
Boxing	48	4.6
Wrestling	52	3.1
Cheerleading	53	3.1

National Rank: Popularity of sport based on national survey.
National Participation: Population that participate in this sport on national survey.

3 This rank is based upon the 58 activities reported on by NSGA in their 2023 survey instrument.

National 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.

Table 4.31 – Participation by Age Group:

Activity	Largest	Second Largest	Third Largest
Aerobics	35-44	25-34	45-54
Basketball	12-17	25-34	18-24
Bicycle Riding	55-64	45-54	12-17
Billiards / Pool	25-34	34-44	45-54
Bowling	25-34	35-44	18-24
Cheerleading	12-17	7-11	18-24
Exercise - Walking	55-64	65-74	45-54
Exercise w/ Equipment	25-34	45-54	55-64
Gymnastics	7-11	12-17	25-34
Martial Arts MMA	7-11	25-34	12-17
Pickleball	12-17	65-74	18-24
Pilates	25-34	35-44	45-54
Running / Jogging	25-34	35-44	45-54
Swimming	55-64	12-17	7-11
Table Tennis / Ping Pong	25-34	18-24	12-17
Volleyball	12-17	25-34	18-24
Weight Lifting	25-34	45-54	35-44
Workout at Club	25-34	35-44	45-54
Wrestling	12-17	25-34	7-11
Yoga	25-34	35-44	45-54
Did Not Participate	45-54	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.

National 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 (2014-2023).

Table 4.32 – National Activity Trend (in millions)

Increase in Participation	2014 Participation	2023 Participation	Percent Increase
Pickleball	1.7	6.4	+276.5%
Table Tennis / Ping Pong	9.8	12.5	+27.6%
Bicycle Riding	35.6	44.6	+25.3%
Weightlifting	31.3	38.8	+24.0%
Yoga	25.9	31.7	+22.4%
Boxing	3.8	4.6	+21.1%
Exercise Walking	96.3	113.9	+18.3%
Volleyball	10.1	11.7	+15.8%
Billiards / Pool	19.5	22.3	+14.4%
Pilates	5.5	6.2	+12.7%
Swimming	45.5	50.2	+10.3%
Exercise w/ Equipment	53.1	58.2	+9.6%
Running / Jogging	42.0	45.0	+7.1%
Gymnastics	5.1	5.3	+3.9%
Wrestling	3.1	3.1	0.0%

Decrease in Participation	2014 Participation	2023 Participation	Percent Decrease
Basketball	25.5	23.2	-9.0%
Cheerleading	3.5	3.1	-11.4%
Workout at Club	34.1	29.6	-13.2%
Martial Arts / MMA	6.4	5.3	-17.2%

2014 Participation: The number of participants per year in the activity (in millions) in the US.
2023 Participation: The number of participants per year in the activity (in millions) in the US.
Percent Change: The percent change in the level of participation from 2014 to 2023.

Johnson City & Area Pools

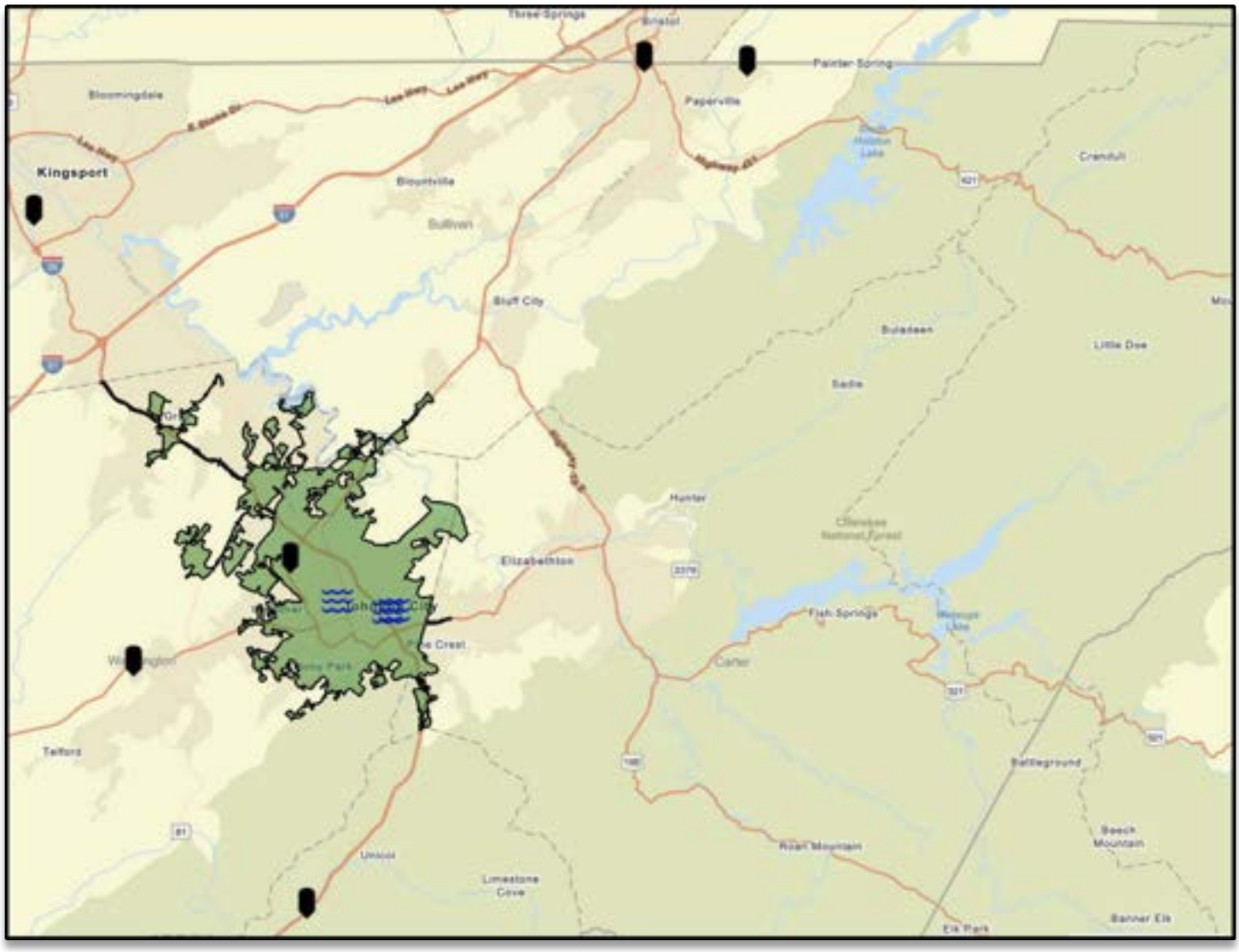


Figure 4.6: Johnson City and Area Pools (Ballard*King and Associates)

1. Wetlands Water Park
2. Kingsport Aquatic Center
3. Fishery Park Pool
4. Wellness Center
5. Bristol YMCA
6. The Club

Watauga County Community Center (not shown)

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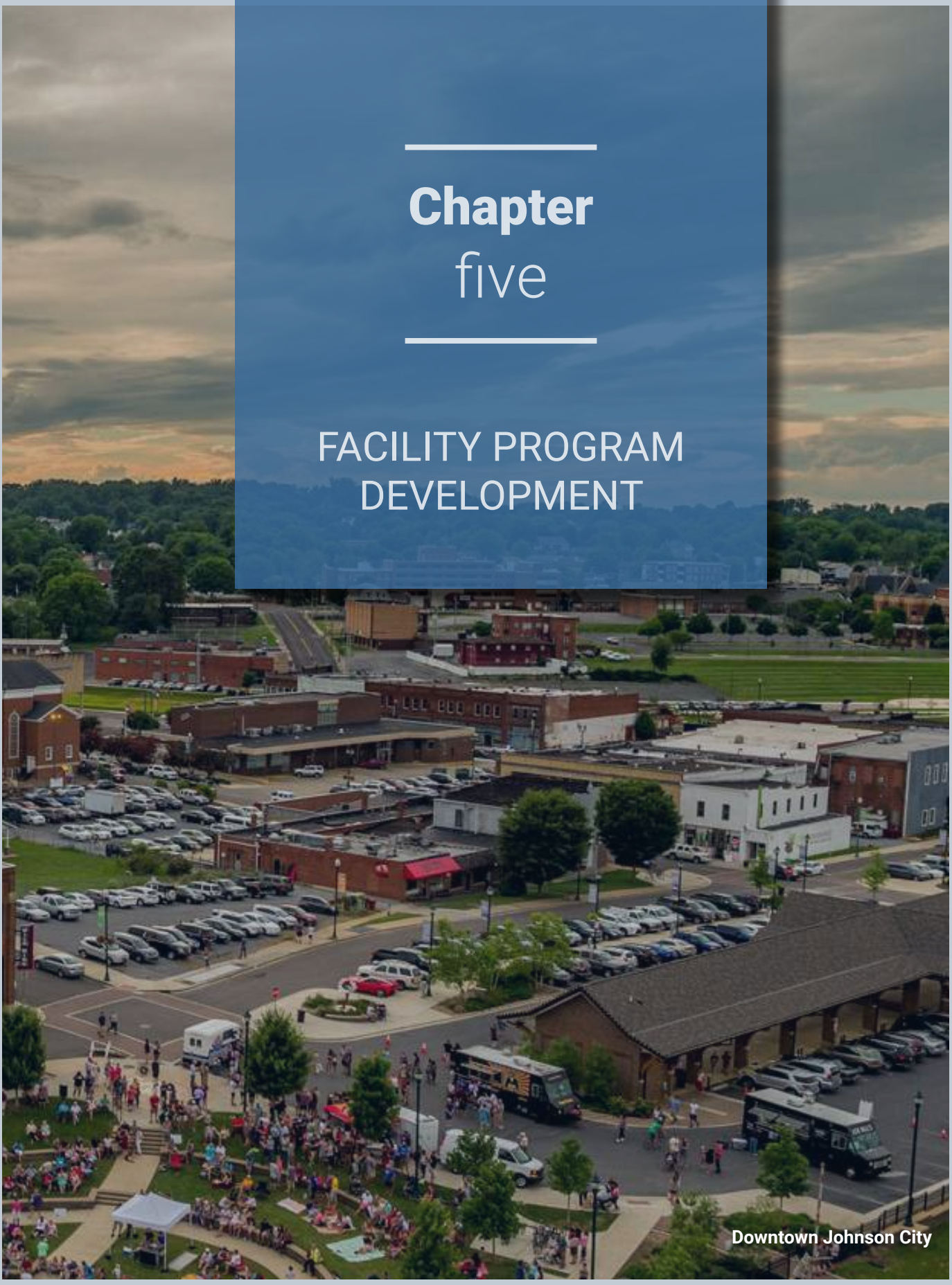
Chapter five

FACILITY PROGRAM DEVELOPMENT



Downtown Johnson City

5.1 Trends

Indoor Recreation Facility Trends[1]

There continues to be very strong growth in the number of Americans participating in recreation and leisure activities. The Physical Activity Council in its 2022 study indicated that 76.3% of Americans (age 6 and older) participated in a recreation related activity in 2021 with 67.3% participating in a fitness sport. However, the study also indicated that 23.7% of Americans were inactive but this is a decrease from earlier years. International Health and Racquet Sports Association (IHRSA) reported that membership in U.S. health clubs has increased by 3.8% since 2019, and memberships in health clubs reached 66.5 million in 2021. Statistics also indicate that approximately 1 out of every 5 people of the U.S. population (or 27%) belong to or utilize a health club. On the other side, most public recreation centers attract between 20% and 30% of a market area (more than once) during the course of a year. All of this indicates the relative strength of a market for a community-based recreation facility. However, despite these increases the American population as a whole continues to lead a rather sedentary life with an average of 25.3% of adults across the country reporting that they engage in no physical activity (according to The Center for Disease Control in 2020). It is important to note that this percentage has been declining steadily since a high in 2008 of 36.2%.

It is recognized that due to COVID 19, participation rates in indoor based activities plunged significantly in 2020 and 2021 as did recreation center membership and pass sales. However, in the last three years most public recreation centers have seen a strong rebound where use and revenues have met or surpassed pre-pandemic numbers.

One of the areas of greatest participant growth over the last 10 years is in fitness related activities such as yoga, exercise with equipment, Pilates, and weightlifting. 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 pickleball, exercise walking, volleyball, swimming, and running/jogging. 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- especially functional training space
- Indoor running/walking tracks
- Meeting/multipurpose (general program) space
- Senior's program space
- Pre-school and youth space
- Teen use and e-sports areas
- Fieldhouses (turf and hard court)

As a result, many providers 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 and more specifically functional training space is also in high demand and provides a facility with the potential to generate significant revenues.

The success of most community-based recreation providers 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, warm water pools, pickleball courts 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

1 These are national trends and are not specific to the Tennessee market.

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 and daycare programming.

Recreation Center Benchmarks: Based on market research conducted by Ballard*King & Associates at public recreation centers across the United States, the following represents the basic benchmarks.

- The majority of recreation centers that are being built today are between 65,000 and 75,000 square feet. Most centers include three primary components A) A pool area usually with competitive and leisure amenities, B) Multipurpose gymnasium space, and C) Weight/cardiovascular/functional training equipment area. In addition, most centers also have group exercise rooms, drop-in childcare, and classroom and/or community spaces.

- For most centers to have an opportunity to cover all of their operating expenses with revenues, they must have a service population of at least 50,000 and a market driven fee structure.
- Most centers that are between 65,000 and 75,000 square feet have an operating budget of between $2,500,000 and $3,000,000 annually. Nearly 70% of the operating costs are from personnel services, followed by approximately 23% for contractual services, 5% for commodities, and 2% for capital replacement. Operating expenses (especially staff costs) have been increasing at a significant rate in the last three years.
- It is common for public recreation centers to draw a percentage of their users from a larger secondary service area on a regular basis. This is particularly true for centers in more rural areas.
- For centers that serve a more urban population and have a market driven fee structure, they should be able to recover 70% to 100% of operating expenses. For centers in more rural areas the recovery rate is generally 50% to 75%. The overall rate of recovery has been declining in the last 3 years as operating costs increase at a high rate while there is only a minimal increase in fees. Facilities that can consistently cover all of their operating expenses with revenues are rare. The first true benchmark year of operation does not occur until the third full year of operation.
- The majority of centers of the size noted (and in an urban environment) above average daily paid attendance of 800 to as much as 1,000 per day. These centers will also typically sell between 1,500 and 3,000 annual passes (depending on the fee structure and marketing program).
- It is common for most centers to have a three-tiered fee structure that offers daily, extended visit (usually multiple admission options) passes, and annual passes. In urban areas it is common to have resident and non-resident fees. Non-resident rates can cost 25% to 50% higher than the resident rate and are usually a topic of discussion amongst elected officials.
- Most centers are open an average of 91 hours a week, with weekday hours being 6:00 am to 9:00 pm, Saturdays 8:00 am to 6:00 pm and Sundays from noon to 6:00 pm. The hours of operation have been reduced since COVID, by opening later in the morning and closing earlier in the evening during the week. There is a trend to open earlier on Sundays, however. Often hours are shorter during the summer months.

Note: These statistics can vary by region of the country.

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 11.1% of the population in the East South Central 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, it should be realized 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 the regular 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.

There are a couple of other aquatic sports that are often competing for pool time at competitive aquatic centers nationwide. However, their competition base and number of participants is often smaller and face barriers of entry fighting for pool time including a more organized competitive swimming community and existing agreements for pool space at facilities with pools large enough and deep enough to host them. These include water polo and water polo and artistic swimming.

Without doubt the hottest 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 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 are able to 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. Of note is the fact that patrons seem willing to pay a higher user fee with this type of pool that is in a park like setting than a conventional 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 a lot 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 idea 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 concept 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.

Lastly, a newer concept is the splash pad or spray ground. This provides a fun yet safe environment where drowning is not a concern and lifeguards are not necessary. While most spray grounds are outdoor amenities, they are now being integrated into indoor facilities as well. In many communities outdoor spray grounds have replaced older traditional neighborhood pools as they are less expensive to build and to operate.

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 need to 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 Immediate 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 ADA. 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 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.

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

Other Providers

In addition to the demographic characteristics, one of the other greatest impacts on swimming for Johnson City is the presence of other similar providers in the area.

Within the greater Johnson City market area there are few facilities that feature indoor or outdoor pools. The primary facilities include:

Public

- Wetlands Water Park: Located west of Johnson City is an outdoor water park operated by the Town of Jonesborough. The facility features a zero depth area, lazy river, 3 water slides, pavilions, and concessions. The facility offers daily admissions, season passes, swim lessons and facility rentals.

Fees:	Daily $11	Child 3-12 & Senior 55+
		$13 Adult 13-55
	Season	$70 Child & Senior
		$90 Adult
	Lessons	$65

- Kingsport Aquatic Center: Located north of Johnson City, the Kingsport Aquatic Center has both indoor and outdoor pools. The indoor side has 3 separate pools, an 8-lane, 50-meter competition pool, warm-water instruction pool and recreational pool. The outdoor water park has a lap pool with social area, zero depth pool with water slides, and lazy river. The facility offers daily admissions, season passes, annual memberships, swim lessons, swim teams, water fitness and facility rentals.

Fees:	Daily	$6 Youth/Senior (School year), $10 (Summer)
		$8 Adult (School year), $12 (Summer)
	Membership	$30 Youth/Senior
		$35 Adult
		$70 Family
	Season	$100 Under 48” or age 55+
		$125 48” and taller
		$250 Family
	Lessons	$80, $70 YMCA Member, $40 KAC Member
	Water Fitness	$5 per class, free for KAC Member
	Pool Party	$285 2 hours, 20 guests
	Cabanas	$75 M-Th, $100 Fri-Sun Full Day
	Indoor Rental	$325/hour 1-100 people
		$12/hour/lane
		$1,500 short course meet full day
		$2,750 long course meet full day
	Outdoor Rental	$450/hour 1-100 people

- Fishery Park Pool: The outdoor pool located south of Johnson City in Erwin is operated by the Unicoi County Family YMCA. The facility features a single body of water with a deep end and diving board. The facility offers daily admissions and punch card pass.

  Fees: Daily $5
  Season $45

- Franklin Pool: Located in Elizabethton, the outdoor pool is operated by the City of Elizabethton. The facility features a single body of water that is a 150 ft oval with 2 diving boards. The facility offers daily admissions and a punch card pass.

  Fees: Daily $4
  Season $120 (40 admissions)
  Outdoor Rental $175 less than 50 people, $250 50+ people

Private

- The Wellness Center: Located in Johnson City is a fitness facility with both an indoor and outdoor pool. The indoor pool is 4-lane 25-yards along with a hot tub. The outdoor pool is 5-lane 25-yards. The facility offers memberships, swim lessons and water fitness.

  Fees: Membership $61.25 Adult/month

- Bristol YMCA: Located in Bristol, the YMCA provides a 5-lane 25-yard indoor pool along with a warm water therapy pool. The facility offers memberships, swim lessons and water fitness.

  Fees: Membership $36 Youth
  $47 Young Adult
  $56 Adult
  $49 Senior
  $79 Family
  Lessons $70, $35 YMCA Member

- Unicoi County Family YMCA: Located in Erwin, the YMCA provides an indoor 5-lane 25-yard pool and is currently closed. The facility offers daily admissions, memberships, swim lessons and water fitness.

  Fees: Membership $25 Youth
  $40 Adult
  $35 Senior
  $55 Family
  Lessons $70, $35 YMCA Member

- The Club: The facility located in Bristol features an outdoor pool with zero depth entry, 8-lane 25-yard section and water slide plus a separate lazy river. The facility offers memberships.

  Fees: Membership $44 Adult

- Tennessee High School: The Viking Hall Pool is located in Bristol. The facility features a 6-lane 25-yard pool with bulkhead and diving well.

- ETSU (Basler Center for Physical Activity): The Campus Recreation Pool features an 8-lane 25-yard pool. The facility is accessible only to faculty and staff. Programming is limited to swim teams through the college.

- Milligan College (Steve Lacy Fieldhouse): Located in Milligan, the facility features a 6-lane 25-meter indoor pool. The facility is accessible only to faculty and staff. Programming is limited to swim teams through the college.

In addition to the ones listed above are a number of other private providers of pools including country clubs, HOA's, apartments and hotels/motels. While it is important to acknowledge their existence, they do not provide the same level of access or programming that the providers listed above. They have limited impact on operations of a public indoor and/or outdoor aquatic center.

The following maps are a representative listing of alternative aquatic facilities in the larger geographic area and is not meant to be a total accounting of all service providers. There may be other facilities located in the area that have an impact on the Johnson City market as well.

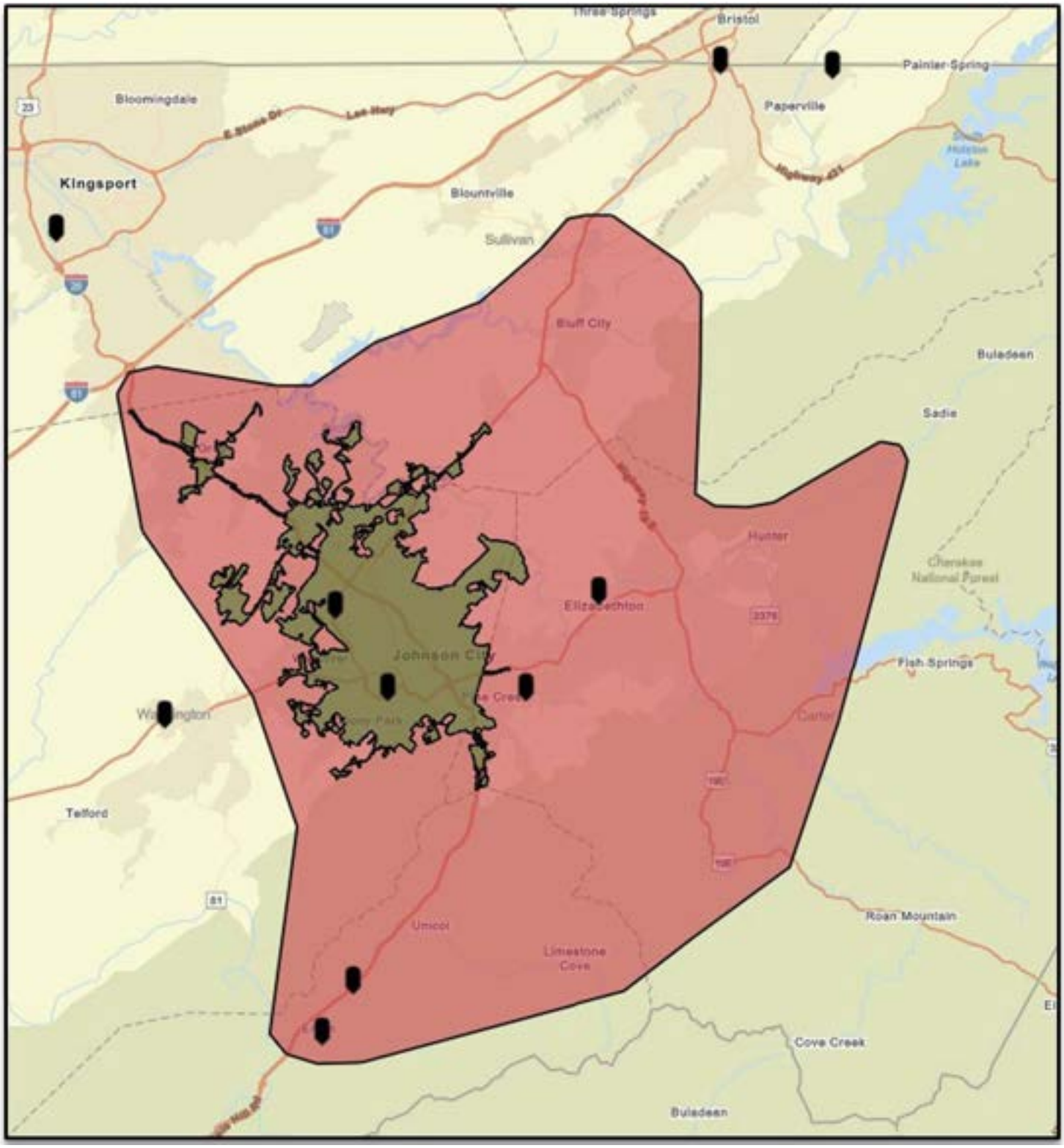


Figure 5.1: Alternative Provider Map – Public/Private Facilities (Ballard*King and Associates).
Green Boundary – Primary Service Area (City of Johnson City)
Red Boundary – Secondary Service

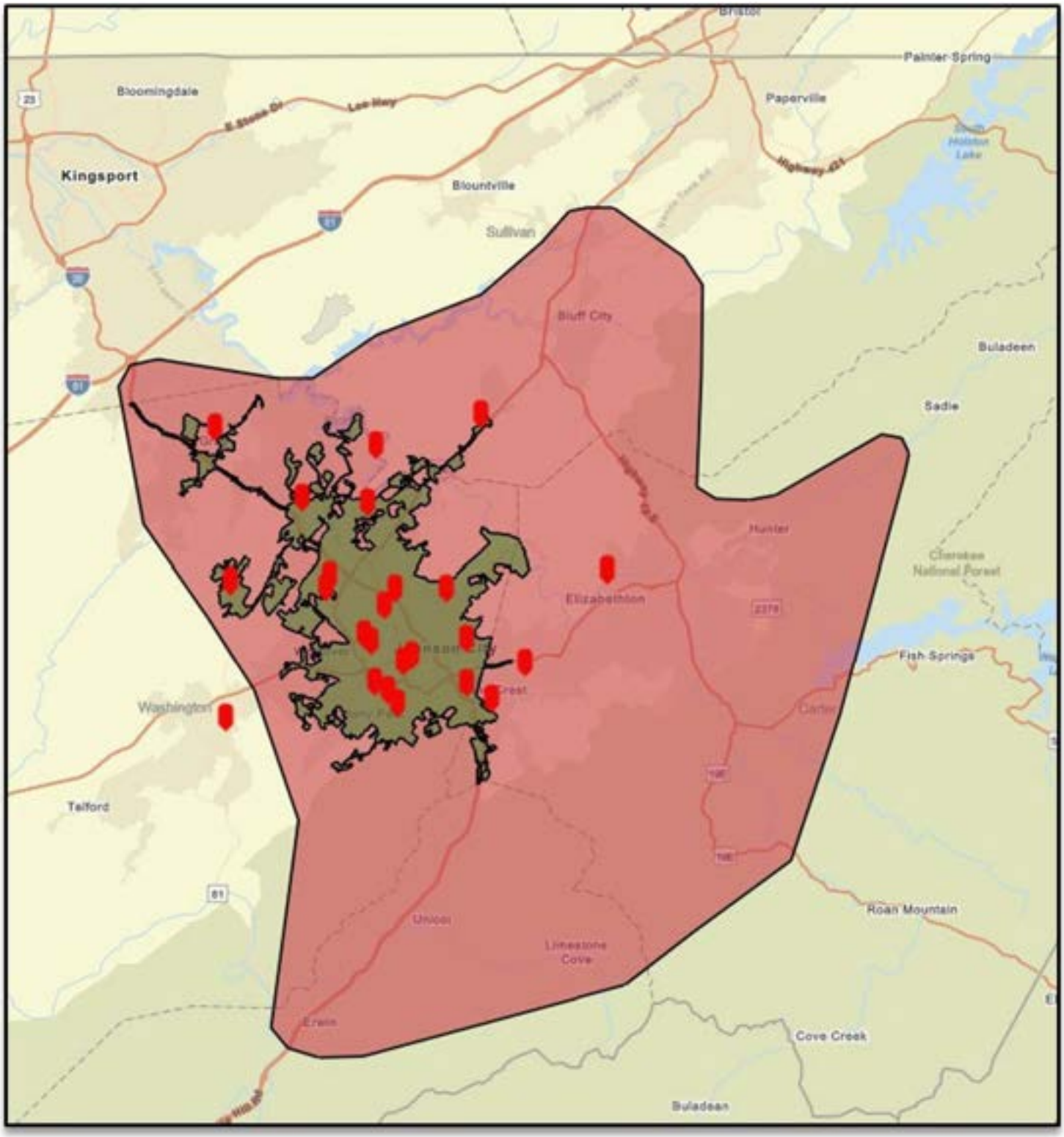


Figure 5.2: Alternative Provider Map – HOA & Apartments (Ballard*King and Associates).
Green Boundary – Primary Service Area (City of Johnson City)
Red Boundary – Secondary Service

5.2 Level of Service

According to ESRI and NSGA participation data, it is estimated Johnson City has nearly 300,000 pool visits annually. Those visits are distributed across all pools within Johnson City between the City facilities and any alternative providers. Regardless, that number of visits is significant. Most communities hope to capture around 10% of this total.

Based on the National Recreation & Park Association and their 2024 Park Metrics, a community the size of Johnson City has approximately 1.4 splash pads, 1.6 outdoor pools, and 1.2 indoor aquatic centers. In addition, it is important to consider the service area of pools. For neighborhood pools, a typical service area is 1 to 2 miles as the amenities available attract users immediately surrounding the pool. Larger regional facilities can attract users from a greater distance with the bulk of the attendance from within 5 miles.

Aquatic centers or swimming pools are usually developed on three levels:

1. Neighborhood: smaller pools that are designed to serve specific neighborhoods. The bather load is often less than 500. The usual standard is 1 per 25,000. These amenities in the past have been provided by cities but now are usually built and maintained by a developer or HOA next to a small neighborhood park.
2. Regional/Community: larger pools that serve a specific region within a community or an entire community. These vary in size and amenities (competitive to recreational) and can range from a bather load of 700 to over 1,500. They are developed as part of a community park. A usual standard is 1 per 50,000 population.
3. Metro Area: these are large water parks that are designed to serve a significant geographic area. They usually contain an expansive recreational pool but can also have a strong competitive focus. Bather loads are 1,500 or more. These are often developed through a partnership with other organizations or the private sector. They would be located in a regional park or as a stand-alone facility. A usual standard is 1 per 250,000 or more.

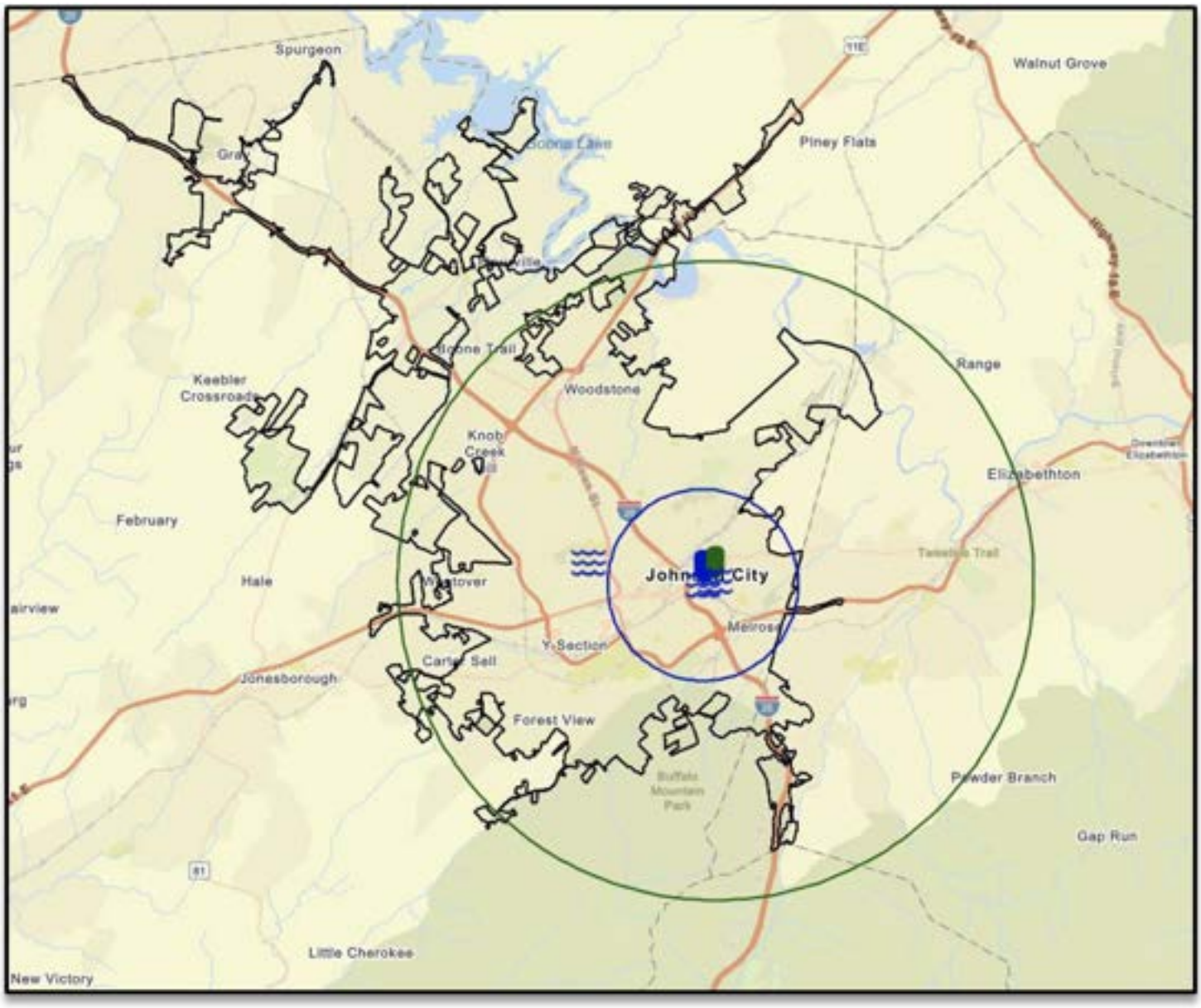


Figure 5.3: Level of Service Map
Blue Pin – 1.5-mile radius (Legion Street Pool)
Green Pin – 5-mile radius (Memorial Park Community Center Pool)
Blue Wave – Freedom Hall Pool

5.3 Recommended Facility Program

The development of the recommended aquatic facility program for Johnson City represents the culmination of a comprehensive planning and analysis process that combined market research, facility assessments, community engagement, and operational modeling into a single coordinated effort. Earlier phases of this study established a clear foundation for decision making: the City's existing aquatic facilities, particularly Freedom Hall Pool and Legion Street Pool, have reached the end of their functional life and are no longer capable of meeting current safety standards, programming needs, or community expectations. At the same time, survey responses and stakeholder input confirmed broad support for a modern aquatic complex that can provide year-round access, greater program variety, and enhanced recreational opportunities for families, athletes, and residents of all ages.
Analysis of demographic and participation trends demonstrated that Johnson City has both the population base and regional draw to support a multi-component aquatic facility. The study's operational modeling further confirmed that a combination of competitive, instructional, and recreational elements would create the most efficient and sustainable model for the City. This approach responds to a wide range of aquatic needs (training, fitness, therapy, and leisure) while balancing accessibility and cost recovery. By integrating new aquatic facilities with the existing Memorial Park Community Center, the City can expand programming without duplicating infrastructure, achieve staffing and maintenance efficiencies, and create a true year-round destination for residents and visitors.

Building upon these findings, the study team developed a concept plan that translates the data and community priorities into a physical design solution. The recommended concept introduces a new indoor aquatic facility connected to Memorial Park Community Center, featuring two primary water bodies: a competition pool designed to accommodate both short-course and long-course configurations with adequate depth and spectator seating, and a recreation and leisure pool offering zero-depth entry, play features, slides, and warm-water zones for instructional and therapeutic use. Together, these components support competitive swimming, learn-to-swim programs, fitness classes, and family recreation within a single cohesive environment.
Complementing the indoor facility, a seasonal outdoor aquatic area extends the experience into the summer months. This outdoor zone includes a leisure pool with interactive spray features and slides, a large splash pad, shaded seating and cabanas, concessions, and restroom facilities. The layout also reserves space for a future lazy river or additional water play elements as demand increases. The combined facility positions Johnson City to provide a comprehensive, intergenerational aquatic experience that meets community needs today and into the future.

This recommended concept embodies the goals established at the outset of the feasibility study: to replace outdated facilities with a vibrant, inclusive, and financially responsible aquatic complex that promotes recreation, wellness, and community connection. It represents the unified vision of the study team and serves as the foundation for subsequent cost estimating, funding strategies, and implementation planning.

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JOHNSON CITY, TN | 8 LANE STRETCH 25 WITH DIVING OPTION

1. 8 LANE STRETCH 25 WITH DIVING
2. SPECTATOR SEATING(MEZZANINE)
   CHANGE ROOMS, OFFICES BELOW
3. ATHLETE SEATING
4. ACCESS
5. CONNECTION TO EXISTING BUILDING
6. ZERO DEPTH ENTRY
7. SMALL PLAY STRUCTURE
8. SPRAY TOYS
9. WATER BASKETBALL
10. OPEN SWIM
11. POOL BENCH SEATING
12. INDOOR SLIDE COMPLEX
    2-BODY SLIDES INTO RUNOUTS
13. TOILETS, F&B, BOH(MECH. BASEMENT)
14. PLAY STRUCTURE SPRAY DECK
15. SHADE(TYP)
16. LARGE SHADE PAVILION
17. FAMILY/KIDS SLIDE
18. DIVING

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2 JULY 2025

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JOHNSON CITY, TN | 25Y X 50M OPTION

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JOHNSON CITY, TN | 25Y X 50M OPTION

1. 25Y X 50M WITH BULKHEAD AND DIVING
2. SPECTATOR SEATING(MEZZANINE) CHANGE ROOMS, OFFICES BELOW
3. ATHLETE SEATING
4. ACCESS
5. CONNECTION TO EXISTING BUILDING
6. ZERO DEPTH ENTRY
7. SMALL PLAY STRUCTURE
8. SPRAY TOYS
9. WATER BASKETBALL
10. OPEN SWIM
11. POOL BENCH SEATING
12. INDOOR SLIDE COMPLEX 2-BODY SLIDES INTO RUNOUTS
13. TOILETS, F&B, BOH(MECH. BASEMENT)
14. PLAY STRUCTURE SPRAY DECK
15. SHADE(TYP)
16. LARGE SHADE PAVILION
17. FAMILY/KIDS SLIDE
18. DIVING

WTI

2 JULY 2025

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LAP SWIM AND DIVING

INDOOR SLIDE COMPLEX

SMALL PLAY STRUCTURE

ZERO DEPTH ENTRY WITH SPRAYS

SPRAY FEATURE

SPRAY FEATURE

SHADE

SPRAY FEATURE

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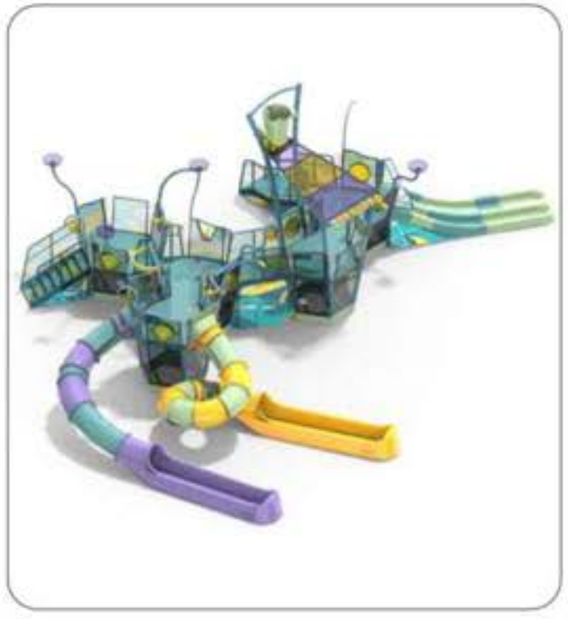

PLAY STRUCTURE/SPRAY DECK

OPEN SWIM AREA

FAMILY/KIDS SLIDE

DIVING

SPRAY FEATURE

SPRAY FEATURE

SPRAY FEATURE

WATER BASKETBALL

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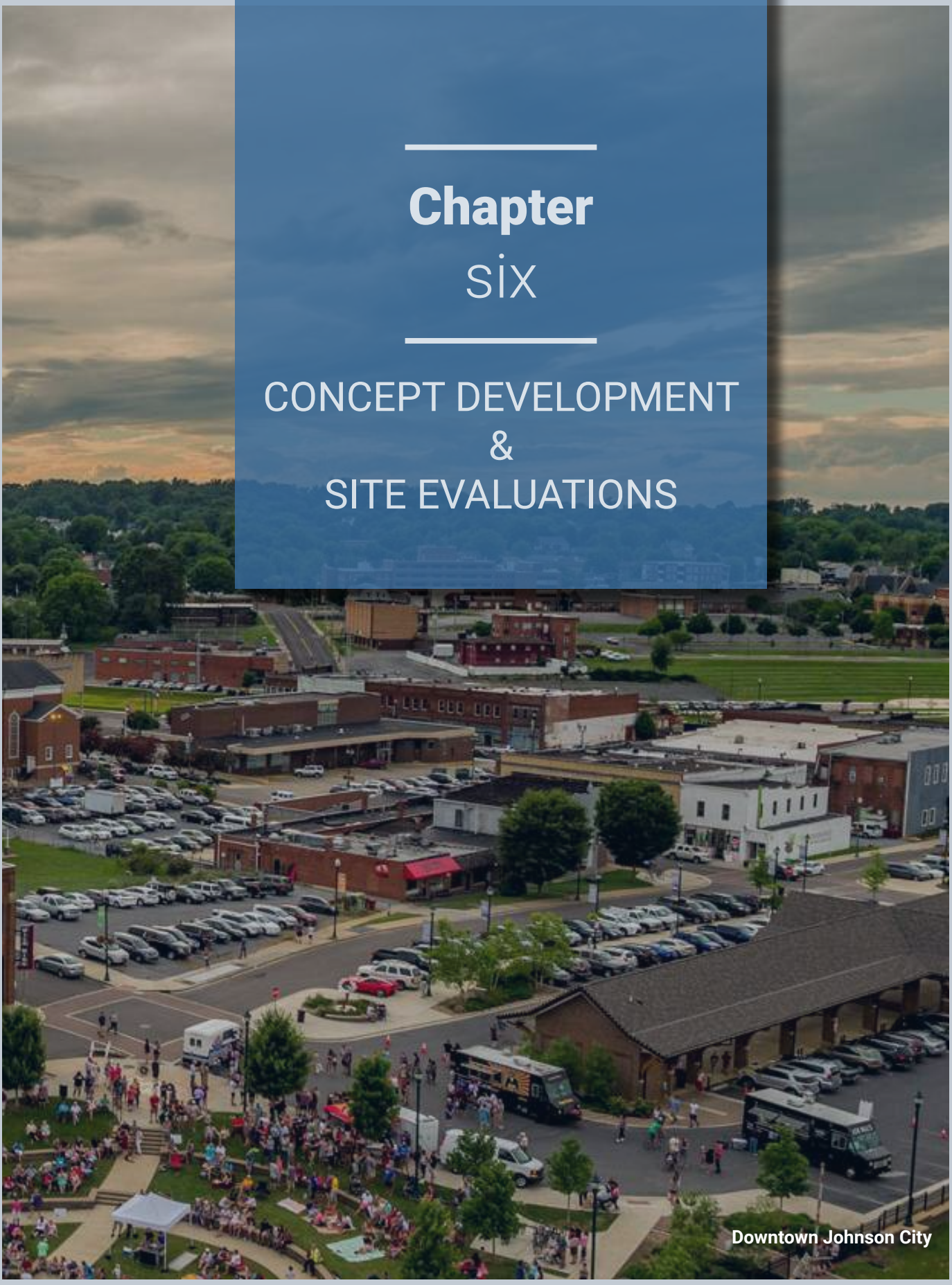
Chapter
SİX

CONCEPT DEVELOPMENT & SITE EVALUATIONS



Downtown Johnson City

6.1 Site Evaluation

The Memorial Park Community Center was selected as the preferred site due to central accessibility, adjacency to existing recreation amenities, available parking, and the ability to connect directly to the existing building for phased expansion.

6.2 Accessibility Review

Accessibility has been a central consideration in the development of the concept plans for Johnson City's proposed aquatics facility. The facility will be designed to meet or exceed the requirements of the Americans with Disabilities Act (ADA) and related state and local accessibility standards.

The conceptual layouts incorporate barrier-free entry and circulation throughout the building and site. Parking areas will include accessible spaces with direct connections to primary entrances, and all pedestrian routes will be continuous and free of obstructions. Within the facility, accessible locker rooms and family changing rooms are included to serve users of all ages and abilities.

In the pool areas, multiple accessibility features are provided. Zero-depth entry is planned for the leisure pool to allow wheelchair access and ease of entry for small children, seniors, and users with mobility limitations. Transfer walls and aquatic lifts are included for the competition pool and therapy pool, ensuring equal access for all program types. Pool deck widths are designed to accommodate wheelchair circulation and spectator areas will include designated accessible seating integrated with general seating locations.

By integrating these accessibility features into the initial concept planning, the City can ensure that the new aquatics facility provides inclusive opportunities for the entire community.

LEGEND

1	25Y X 50M WITH BULKHEAD AND DIVING
2	SPECTATOR SEATING (MEZZANINE) CHANGE ROOMS, OFFICES BELOW
3	ATHLETE SEATING
4	ACCESS
5	CONNECTION TO EXISTING BUILDING
6	ZERO DEPTH ENTRY
7	SMALL PLAY STRUCTURE
8	SPRAY TOYS
9	WATER BASKETBALL
10	OPEN SWIM
11	POOL BENCH SEATING
12	INDOOR SLIDE COMPLEX 2 BODY SLIDE INTO RUNOUTS
13	TOILETS, F&B, BOH (MECH. BASEMENT)
14	PLAY STRUCTURE SPRAY DECK
15	SHADE (TYP)
16	LARGE SHADE PAVILION
17	FAMILY/ KIDS SLIDE
18	DIVING

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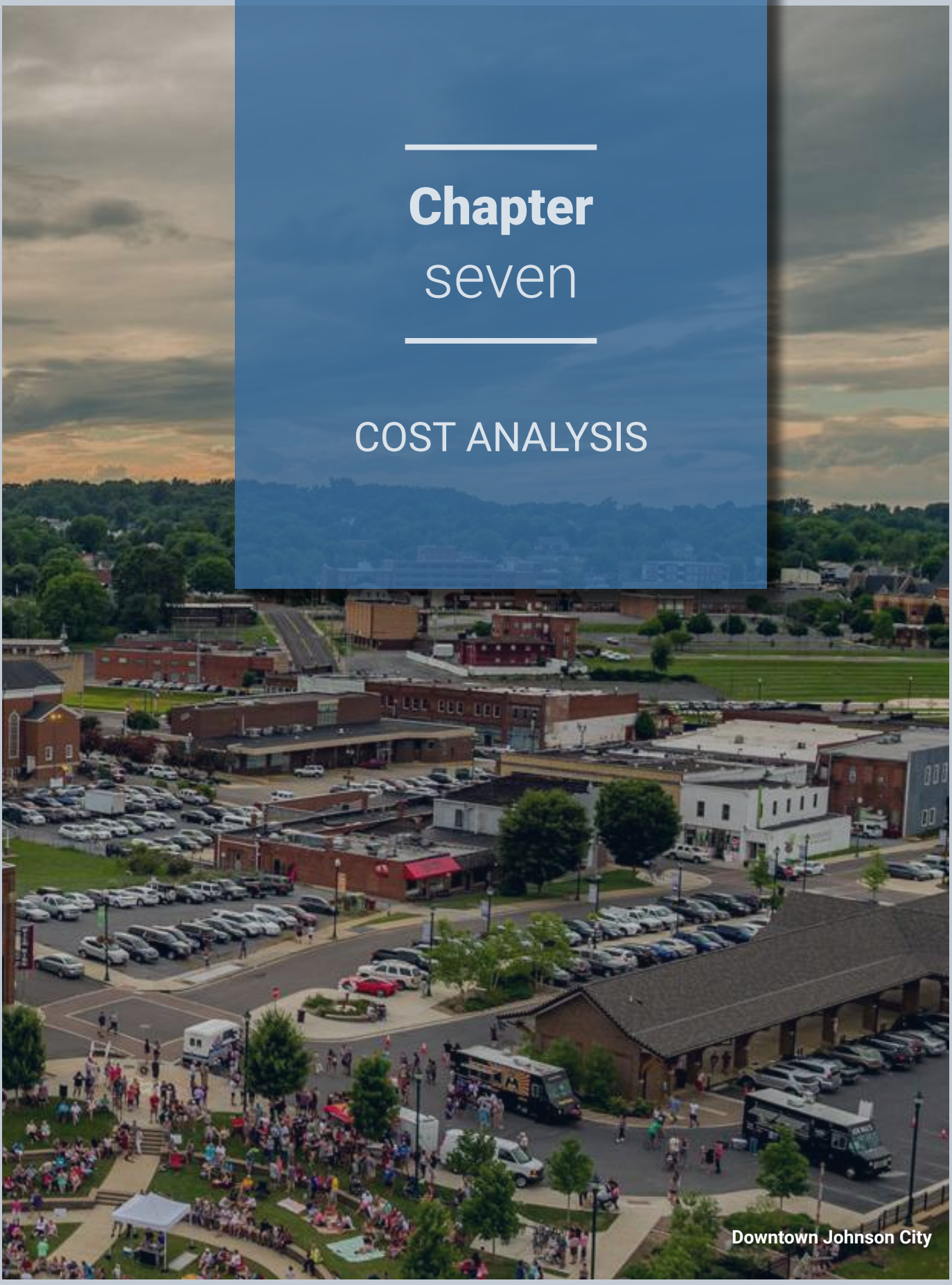
Chapter seven

COST ANALYSIS



Downtown Johnson City

7.1 Opinion of Probable Construction Cost and Phasing Approach

An Opinion of Probable Cost (OPC) was developed to align the recommended facility program and concept plan with realistic construction expectations. The estimate was prepared using current construction market data, regional cost factors, and professional judgment based on comparable projects and the specific conditions of the Johnson City site. The OPC reflects construction-only figures and includes all direct construction costs such as sitework, building systems, utilities, and finishes, as well as general conditions and contractor markups.

Each phase of the project includes a range representing probable low and high construction values, reflecting variability in market conditions and potential bid competitiveness. A modest escalation allowance was included to account for anticipated cost changes over the next two to three years. Bid dates beyond that timeframe may require additional escalation to reflect future market conditions.

The project is organized into three phases for potential implementation. Phase 1 includes the indoor competition pool and associated support spaces. Phase 2 provides the outdoor recreation pool components, and Phase 3 completes the outdoor splash pad and associated site amenities. The outdoor phases are independent and may be constructed in any order, as neither relies on the other to function.

The indoor components, however, require coordinated planning to ensure long-term integration. The two indoor phases may be constructed separately provided that the competition pool (Phase 1) is built first. Mechanical, electrical, and plumbing systems should be designed with the future recreation pool in mind, including appropriate sizing and space allocation for future equipment expansion. The exterior wall at the terminus of the Phase 1 building can be designed as a storefront glazing system with an egress door to serve as a temporary end condition. When the future indoor phase is constructed, this wall can remain in place to provide a separation between distinct indoor environments, allowing each to be controlled independently based on their specific temperature and humidity requirements.

This phased approach allows the City to pursue funding and construction in manageable increments while ensuring that each phase contributes meaningfully to the long-term vision. Each phase provides a complete, functional facility at its conclusion, allowing flexibility in timing and delivery without compromising operational performance or design integrity.

The OPC identifies a total construction range of approximately $30 million to $38 million for indoor components, $5 million to $6 million for the outdoor recreation phase, and $4 million to $5 million for the outdoor splash pad phase. While the indoor phases are grouped as a single category in the OPC for clarity, the two indoor components can be implemented independently under the parameters described above. These cost ranges provide a realistic basis for budgeting, funding, and planning as the project advances toward design and implementation.

LOSE DESIGN
SPACES FOR LIFE.

Johnson City Aquatics - Memorial Park Option

PRELIMINARY OPINION OF PROBABLE COST - CONCEPTUAL

8/29/2025

LOSE #: 24031

AREA NO.	DESCRIPTION	Phase 1 Indoor LOWER - UPPER	Phase 2 Outdoor LOWER - UPPER	Phase 3 Splashpad LOWER - UPPER
A	Clearing, Grubbing, Construction Signs, General Conditions	$52,000 - $65,000	$19,000 - $24,000	$15,000 - $18,000
B	Aquatic- Indoor Competition	$16,397,000 - $20,711,000	$0 - $0	$0 - $0
C	Aquatics - Indoor Recreation	$9,661,000 - $12,203,000	$0 - $0	$0 - $0
D	Aquatics - Outdoor Recreation	$0 - $0	$4,502,000 - $5,686,000	$0 - $0
E	Aquatics - Outdoor Splash Pad	$3,774,000 - $4,767,000	$0 - $0	$3,774,000 - $4,767,000
F	Exterior Fencing & Railing	$0 - $0	$15,000 - $18,000	$9,000 - $11,000
G	Exterior Site Lighting	$0 - $0	$49,000 - $62,000	$30,000 - $37,000
H	Earthwork & EPSC	$65,000 - $83,000	$24,000 - $30,000	$22,000 - $27,000
I	Landscape / Seeding / Sodding / Irrigation	$44,000 - $55,000	$45,000 - $57,000	$47,000 - $59,000
J	Site Circulation & Pavement (Roads, Parking, Plazas, Trails)	$2,000 - $3,000	$234,000 - $296,000	$118,000 - $149,000
K	Utilities (Storm / Sanitary / Electrical / Water)	$88,000 - $111,000	$46,000 - $58,000	$40,000 - $51,000
L	Fixtures, Furnishings & Equipment	$6,000 - $7,000	$54,000 - $69,000	$34,000 - $43,000
	PROBABLE CONSTRUCTION RANGE:	**$30,089,000 - $38,005,000**	**$4,988,000 - $6,300,000**	**$4,089,000 - $5,162,000**

Contractor Fees, Contingencies, Markups, Escalation
20%

ADDITIONAL NOTES

1. Unless otherwise noted, all unit prices reflect the furnishing of all labor, mobilization, materials, supplies, services, etc. and all items of cost, overhead, profit, insurance, taxes, fees permits, etc.
2. Unless otherwise noted, all unit prices DO NOT include earth moving necessary for installation; earth moving shall be reflected in specified line items (e.g. Earthwork, Undercutting, etc.)
3. All unit prices are current as of the date listed on this document.
4. Estimates of construction quantities and opinion of probable costs provided by us are made on the basis of our experience and the level of design. They represent our best judgment as design professionals. We cannot and do not, however, guarantee that the actual construction quantities or costs will not vary from our quantities and cost estimates. Lose Design makes no warranty, expressed or implied, for the accuracy of such opinions as compared to bid or actual costs.

ITEM	UNIT PRICE	UNIT	Phase 1 Indoor QTY.	Phase 1 Indoor UNIT TOTAL + CONTINGENCY	Phase 2 Outdoor QTY.	Phase 2 Outdoor UNIT TOTAL + CONTINGENCY	Phase 3 Splashpad QTY.	Phase 3 Splashpad UNIT TOTAL + CONTINGENCY
Clearing, Grubbing, Construction Signs, General Conditions				**$ 54,136.36**		**$ 19,172.16**		**$ 14,739.81**
CONSTRUCTION SIGN (BUDGET)	1	LS	$ 2,500.00	$ 3,000.00	$ 2,500.00	$ 3,000.00	$ 2,500.00	$ 3,000.00
CONSTRUCTION WASTE DISPOSAL, GENERAL CONDITIONS	1	LS	$ 31,613.63	$ 37,936.36	$ 5,226.80	$ 6,272.16	$ 4,283.17	$ 5,139.81
CLEARING & GRUBBING	6,500.00	AC	2.0	$ 13,200.00	1.5	$ 9,900.00	1.0	$ 6,600.00
Aquatic- Indoor Competition				**$ 17,259,096.00**		**$ -**		**$ -**
COMP. POOL W/2 BULKHEADS	$ 300.00	SF	12,975	$ 4,671,000.00		$ -		$ -
STARTING PLATFORMS	12,500.00	EA	20	$ 300,000.00		$ -		$ -
1M DIVING BOARD	28,000.00	EA	1	$ 33,600.00		$ -		$ -
3M DIVING BOARD	46,000.00	EA	1	$ 55,200.00		$ -		$ -
BACKSTROKE FLAGS	13.00	LF	160	$ 2,496.00		$ -		$ -
FLAG STANCHION POSTS	2,500.00	EA	8	$ 24,000.00		$ -		$ -
GRABRAILS	3,500.00	EA	8	$ 33,600.00		$ -		$ -
UNDERWATER LIGHTS	3,500.00	EA	32	$ 134,400.00		$ -		$ -
ADA LIFT	14,500.00	EA	2	$ 34,800.00		$ -		$ -
BLDG A - INDOOR COMPETITION	$ 350.00	SF	28,500	$ 11,970,000.00		$ -		$ -
Aquatics - Indoor Recreation				**$ 10,168,755.00**		**$ -**		**$ -**
REC. POOL	$ 325.00	SF	6,593	$ 2,142,725.00		$ -		$ -
SLIDES	1,108,250.00	EA	1	$ 1,108,250.00		$ -		$ -
SLIDE FOOTINGS	100,000.00	EA	1	$ 100,000.00		$ -		$ -
PLAY STRUCTURE	296,600.00	EA	1	$ 296,600.00		$ -		$ -
SPRAY FEATURES	83,680.00	EA	1	$ 83,680.00		$ -		$ -
B-BALL GOALS	5,000.00	EA	2	$ 10,000.00		$ -		$ -
GRABRAILS	3,500.00	EA	2	$ 7,000.00		$ -		$ -
UNDERWATER LIGHTS	3,500.00	EA	16	$ 56,000.00		$ -		$ -
STAIRS AND HANDRAILS	25,000.00	EA	2	$ 50,000.00		$ -		$ -
ADA LIFT	14,500.00	EA	1	$ 14,500.00		$ -		$ -
BLDG B - INDOOR RECREATION & EQUIPMENT	$ 350.00	SF	18,000	$ 6,300,000.00		$ -		$ -
Aquatics - Outdoor Recreation				**$ -**		**$ 4,738,102.80**		**$ -**
REC. POOL	$ 300.00	SF		$ -	9,461	$ 3,402,360.00		$ -
SLIDE	137,500.00	EA		$ -	1	$ 165,000.00		$ -
SPRAY FEATURES	102,119.00	EA		$ -	1	$ 122,542.80		$ -
B-BALL GOALS	5,000.00	EA		$ -	3	$ 18,000.00		$ -
1M DIVING BOARD	28,000.00	EA		$ -	1	$ 33,600.00		$ -
3M DIVING BOARD	46,000.00	EA		$ -	1	$ 55,200.00		$ -
GRABRAILS	3,500.00	EA		$ -	6	$ 25,200.00		$ -
UNDERWATER LIGHTS	3,500.00	EA		$ -	24	$ 100,800.00		$ -
STAIRS AND HANDRAILS	25,000.00	EA		$ -	3	$ 90,000.00		$ -
ADA LIFT	14,500.00	EA		$ -	1	$ 17,400.00		$ -
BLDG C - LARGE SHADE PAVILION	$ 175.00	SF		$ -	1,800	$ 378,000.00		$ -
15'x20' FABRIC SHADE STRUCTURE	$ 25,000.00	EA		$ -	11	$ 330,000.00		$ -
Aquatics - Outdoor Splash Pad				**$ 3,971,964.00**		**$ -**		**$ 3,971,964.00**
SPLASH PAD	$ 275.00	SF		$ 1,915,650.00		$ -	5,805	$ 1,915,650.00
SAFETY FLOOR	40.00	SF		$ 832,080.00		$ -	17,335	$ 832,080.00
PLAY STRUCTURE	720,750.00	EA		$ 864,900.00		$ -	1	$ 864,900.00
SPRAY FEATURES	124,445.00	EA		$ 149,334.00		$ -	1	$ 149,334.00
15'x20' FABRIC SHADE STRUCTURE	$ 25,000.00	EA		$ 210,000.00		$ -	7	$ 210,000.00
Exterior Fencing & Railing				**$ -**		**$ 15,000.00**		**$ 9,000.00**
FENCE - CHAINLINK, 6'H, VINYL COAT	25.00	LF		$ -	500	$ 15,000.00	300	$ 9,000.00
Exterior Site Lighting				**$ -**		**$ 51,000.00**		**$ 30,600.00**
LIGHTING - PEDESTRIAN, SECURITY, 20' POLE ($/POLE)	$ 8,500.00	EA		$ -	6	$ 51,000.00	3	$ 30,600.00
Earthwork & EPSC				**$ 68,400.00**		**$ 24,600.00**		**$ 22,200.00**
EPSC (BUDGET)	$ 8,500.00	AC	2	$ 20,400.00	1	$ 10,200.00	1	$ 10,200.00
EARTHWORK - BALANCED, GENERAL	10.00	CY	4,800	$ 48,000.00	1,200	$ 14,400.00	1,000	$ 12,000.00
Landscape / Seeding / Sodding / Irrigation				**$ 45,600.00**		**$ 47,250.00**		**$ 48,900.00**
PLANTING - SOD	$ 0.55	SF	5,000	$ 3,300.00	7,500	$ 4,950.00	10,000	$ 6,600.00
PLANTING - TREES - DECIDUOUS, LARGE	1,000.00	EA	15	$ 18,000.00	15	$ 18,000.00	15	$ 18,000.00
PLANTING - TREES - ORNAMENTAL	750.00	EA	15	$ 13,500.00	15	$ 13,500.00	15	$ 13,500.00
LANDSCAPE - SEED, PERMANENT	9,000.00	AC	1	$ 10,800.00	1	$ 10,800.00	1	$ 10,800.00
Site Circulation & Pavement (Roads, Parking, Plazas, Trails)				**$ 2,016.00**		**$ 246,144.00**		**$ 123,408.00**
PAVEMENT - CONCRETE, LIGHT DUTY	12.00	SF		$ -	17,000	$ 244,800.00	8,500	$ 122,400.00
PAVEMENT - CURB, POST	14.00	LF	120	$ 2,016.00	80	$ 1,344.00	60	$ 1,008.00
Utilities (Storm / Sanitary / Electrical / Water)				**$ 92,400.00**		**$ 48,000.00**		**$ 42,000.00**
STORM - BUDGET	$ 1.00	LS		$ -	40,000	$ 48,000.00	35,000	$ 42,000.00
ELEC - TRANSFORMER, BUDGET	12,000.00	EA	1	$ 14,400.00		$ -		$ -
ELEC - SERVICE, BUDGET	1	LS	$ 25,000.00	$ 30,000.00		$ -		$ -
SANITARY - BUDGET	1	LS	$ 20,000.00	$ 24,000.00		$ -		$ -
WATER SERVICE - BUDGET	1	LS	$ 20,000.00	$ 24,000.00		$ -		$ -
Fixtures, Furnishings & Equipment				**$ 5,400.00**		**$ 56,700.00**		**$ 35,100.00**
PICNIC TABLES (6')	3,000.00	EA		$ -	11	$ 39,600.00	7	$ 25,200.00
BENCH (6'L)	1,500.00	EA		$ -	8	$ 14,400.00	4	$ 7,200.00
BIKE RACK	750.00	EA	6	$ 5,400.00		$ -		$ -
TRASH RECEPTABLE	750.00	EA		$ -	3	$ 2,700.00	3	$ 2,700.00

7.2 Operation Summary

All of the information gathered to this point is used to develop an operational plan for the potential facility. It is important to note again that B*K is an operational and planning firm. As such we provide third party, independent analysis regarding operations, and have no financial gain associated with the facility being built and/or operated.

B*K developed operational plans for the concept plans currently being developed by Water Technology, Inc. and Lose Design. The concepts primarily focus on aquatics. Operation plans have been developed for an indoor and outdoor facility.

- Indoor
  - » 40,000+ square foot facility with 2 bodies of water. One is a recreation/leisure pool with zero depth entry, small play structure and waters slides. The other is a competition pool, either a 25-yard stretch or 50-meter pool.
  - » Both include mechanical and storage.

- Outdoor
  - » 9,500 square foot facility with zero depth leisure pool, play structure, slide tower w/ slides and 5,000 square foot splash pad.
  - » Includes deck, rentable cabanas and concessions/restrooms.

While this is a new facility within the market, alternative facilities exist within Johnson City area. These facilities are in neighboring communities with some similar features within the outdoor pools, but not to the extent of this facility nor indoors. The amenities for this proposed facility allow for a greater experience appealing to a broad spectrum of users, and there are limited options overall within the market so the impact from these facilities will not be significant.

B*K takes a conservative approach when developing operational plans for proposed facilities. The operational plan does not reflect 100% capacity regarding programming, admissions, or rentals. For the operational portion of the study with the City of Johnson City, the following assumptions were made.

- The final concept plan could impact part-time staffing levels and the site could influence revenue.
- The first year of operation will be 2028 or later.
- Hours of Operation:
  - » Indoor (50 weeks):
    Monday – Friday 5:30AM – 8:00PM
    Saturday – 9:00AM – 4:00PM
    Sunday – CLOSED
  - » Outdoor (14 weeks)
    Monday – Saturday 10:00AM – 8:00PM
    Sunday – 1:00PM – 8:00PM
- The presence of other providers in the market will remain the same.
- The operator of the facility is the City of Johnson City. The plan, specifically full-time staffing, identifies the costs associated with a facility attached to the Memorial Park Community Center.
  - » Adding the new aquatics facilities to an existing facility has a number of benefits from an operational perspective. While the amenities do require additional staffing, it is not as extensive as a standalone facility.
- Full-Time compensation has been compared to the East Tennessee region, and current City of Johnson City wage scale.
- Part-time rates are based on front desk, building attendants and lifeguards at $14.00/hr, with leaders and supervisors progressively higher.
- The operational plan is built from industry standards regarding staffing and best practices associated with community recreation center operations.
  - » For aquatics, the standard is a minimum of 2 certified lifeguards on duty any time the pool is open for use.
- The utilities were factored based on both the indoor and outdoor space with the indoor aquatic space at a higher rate.
- Johnson City pays for water/sewer.

- No internal charge backs have been factored into this plan to account for; HR, IT Support, Building & Grounds, Marketing, etc.
- Bank charges are calculated at 3% of revenue generation expected to be from credit card usage.
- An annual capital replacement allocation has been allocated by model. B*K is not recommending to spend these dollars, but rather they should go to a sinking fund and accumulate a balance over 5 years, at which time they can be accessed to make improvements to the facility.

Using these concepts, B*K developed an operational plan for the facility. Using the best information available, combined with the City's operational goals, B*K created 5-year projection. Below is a chart with the average of years 3 – 5 of operations as this reflects "normal" operations.

	Indoor w/ 25-Yard Stretch	Indoor w/ 50-Meter Stretch	Outdoor
Expense	$1,573,127	$1,678,099	$729,554
Revenue	$816,137	$890,629	$618,849
	($756,990)	($787,470)	($110,705)
Cost Recovery	51.9%	53.1%	84.8%
Cumulative Capital Replacement	$400,000	$465,000	$152,590

It is important to note that total expenses in these models reflect an annual allocation to a capital replacement fund. That fund is dedicated to improvements/repairs needed at the aquatic center, not a full facility replacement.

Additional Recommendations

- Fees should be reviewed annually, especially membership rates. Adjustments should be made consistently to keep up with inflation and maintain the quality of service.
- With the investment Johnson City is considering for an aquatic facility, additional full-time aquatic positions should be created. The current Aquatic Manager position would remain for oversight and ultimate responsibility of all aquatics operations. These new positions include Program Coordinators and Head Lifeguards. The coordinator positions will oversee aquatic programs such as swim teams, Learn to Swim and Water Fitness and recruiting/training staff. Due to the extensive aquatic operation and challenges in filling part-time lifeguard positions, it is recommended to include full-time Head Lifeguards to cover early morning and daytime hours.
- As such, the full-time and part-time positions in the operational plan are not currently in any budget. If the project moves into the construction phase, Johnson City will need to develop a ramp up budget to account for construction and opening. This should occur at least 6 months prior to anticipated opening.
- In addition, due to the complexity and size of the maintenance and operations associated with this size of aquatic center, a full-time maintenance position is recommended. Most of the maintenance would be handled by Johnson City staff. B*K would recommend including preventative maintenance on major HVAC and mechanical systems into the construction contract for at least the first 2 seasons.
- These positions would be complemented by full-time custodial staff. Specialty services such as upkeep of UV sanitation, limited HVAC, and elevator will be completed through contracts.
- An annual allocation for capital/equipment replacement. These funds would be set aside annually to accumulate. This allows Johnson City to replace critical components of the facility and pool operation without impacting the overall City budget. Typical items that may need to be replaced include pumps, motors, heaters and other mechanical systems.

Additional Comments

Many recreation and/or fitness centers charge an initiation fee or joining fee. This fee is paid at the time of registering for a membership and is not incurred annually unless a membership lapses. While generating a fair amount of revenue in the initial year of operation, the annual amount is significantly diminished as renewal rates are fairly high. For the purposes of this plan, an amount has not been included.

The indoor operation would not have a concession operation. To maximize the revenue associated with the facility during swim meets, a party room or meeting space could act as a concession stand and/or food trucks could provide additional service during large events. This would minimize the upfront costs of constructing the space while also tapping into the local flavor and community.

7.3 Operation Detail

This section of the report analyzes the operation of the concept plan provided to B*K by WTI and Lose Design.

Indoor Program

- Locker Rooms
- Competition Pool
  - Spectator seating
  - 25-yard stretch with diving or
  - 50-meter
- Recreation Pool
  - Zero depth entry
  - Small play structure and sprays
  - Water basketball
  - Open swim area
  - Bench seating
  - Water slides with runouts
- Storage
- Mechanical Rooms

Outdoor Program

- Recreation Pool
  - Zero depth entry
  - Small play structure and sprays
  - Kids slide
  - Water basketball
  - Open swim area
  - Bench seating
  - Water slides with racers, runout and plunge
- Splash pad
- Cabanas
- Concessions/Restrooms
- Potential future expansion for Lazy river

The assumptions above have been incorporated into the operations plan for the City of Johnson City. Again, B*K takes a conservative approach when developing operational plans for proposed facilities.

In addition:

- Indoor – 50 Weeks
  - Facility would be closed for major holidays
  - Facility may close portions of the facility for annual maintenance such as refinishing slides or draining pools.
  - Hours may be altered between the school year and summer
- Outdoor – 14 Weeks
  - Open Memorial Day through Labor Day
  - Hours may be altered beginning in mid-August with school beginning
- Annual Pass Structure
  - Youth/Student $25.00/month
  - Adult $40.00/month
  - Household $60.00/month

  - » Senior $25.00/month
  - » Senior + 1 $35.00/month
- Season Pass Structure
  - » Youth/Student $60.00
  - » Adult $75.00
  - » Household $180.00
  - » Senior $60.00
  - » Senior + 1 $90.00
- Daily Admission Structure
  - » Under 3 Free
  - » Youth (3-18) $6.00
  - » Adult (19-59) $8.00
  - » Senior (60+) $6.00
- Program Fees
  - » Group Exercise Session $40.00/session
  - » Learn to Swim $50.00/session
  - » Special Events $5.00/person
- Rental Structure
  - » Birthday Parties $225.00
  - » Pool $600 for 2 hours
  - » Lane Rental $12.00/lane/hour (short course)
    High school & club teams to be charged
- Non-resident rates are 25% higher than the resident rate.

Expense Model

The expense model has been built with the best information available at the time of the study. The model reflects recommendations from B*K as to how the City might operate the facility in an efficient and effective manner in year 1.

Category	Indoor w/ 25-Yard Stretch	Indoor w/ 50-Meter Stretch	Outdoor
Personnel	$844,762	$844,762	$377,894
Commodities	$158,723	$187,968	$107,910
Contractual	$369,840	$424,573	$157,672
Sub-Total	$1,373,325	$1,457,303	$643,477
Capital Replacement Allocation[1]	$80,000	$93,000	$30,518
Total Expense	**$1,453,325**	**$1,550,303**	**$673,995**

1 B*K would recommend the City begin an improvement account for the facility. The funds would be allocated annually to the account to build a balance that the City could then access for facility improvements/repairs.

Revenue Model

The revenue model was built with the best information available at the time of the study. The model reflects how the City might operate the facility with the intent of balancing cost recovery along with accessibility. It is important to note that the revenue figures do not reflect capacity.

Category	Indoor w/ 25-Yard Stretch	Indoor w/ 50-Meter Stretch	Outdoor
Fees (passes/admissions)	$464,350	$464,350	$383,163
Programs	$50,120	$50,120	$31,920
Other[2]	204,020	$247,820	$104,690
Total Revenue	**$718,490**	**$762,290**	**$519,773**

7.4 Five-Year Projection

The following is a 5-year projection for the future operation. Year 1 is the first full year that the recreation center is available. The total operational expense includes the replacement allocation.

Indoor w/ 25-Yard Stretch	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	$1,453,325	$1,482,392	$1,526,863	$1,572,669	$1,619,849
Revenue	$718,490	$754,415	$792,135	$815,899	$840,376
	($734,835)	($727,977)	($734,728)	($756,770)	($779,473)
Recover % w/Replace	49.4%	50.9%	51.9%	51.9%	51.9%
Recover % w/o Replace	52.3%	53.8%	54.7%	54.7%	54.6%
Capital (cumulative)	$80,000	$160,000	$240,000	$320,000	$400,000

Indoor w/ 50-Meter Stretch	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	$1,550,303	$1,581,309	$1,628,748	$1,677,611	$1,727,939
Revenue	$762,290	$823,273	$864,437	$890,370	$917,081
	($788,013)	($758,036)	($764,312)	($787,241)	($810,858)
Recover % w/Replace	49.2%	52.1%	53.1%	53.1%	53.1%
Recover % w/o Replace	52.3%	55.3%	56.3%	56.2%	56.1%
Capital (cumulative)	$93,000	$186,000	$279,000	$372,000	$465,000

Outdoor	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	$673,995	$687,475	$708,099	$729,342	$751,222
Revenue	$519,773	$561,354	$600,649	$618,669	$637,229
	($154,222)	($126,120)	($107,450)	($110,673)	($113,993)
Recover % w/Replace	77.1%	81.7%	84.8%	84.8%	84.8%
Recover % w/o Replace	80.8%	85.4%	88.6%	88.5%	88.4%
Capital (cumulative)	$30,518	$61,036	$91,554	$122,072	$152,590

2 The Other category includes concessions, birthday parties, rentals and sponsorship.

7.5 Projected Expenditures

The following revenue opportunities developed by B*K, are based on information provided by Johnson City, familiarity with the market, and experience as facility operators. The projections are what B*K feels the department could anticipate achieving in year 1 of the operation.

Full Time Staffing

Positions	Pay Grade	Salary	Indoor Positions	Outdoor Positions
Program Coordinator	$50,000	1	$50,000	$50,000
Maintenance Foreperson			$0	
Maintenance Tech	$40,000	1	$40,000	
Custodial	$35,000	1	$35,000	
Head Lifeguard	$45,000	3	$135,000	
Benefit Factor	40%		$104,000	$20,000
Total			**$364,000**	**$70,000**

It is the opinion of B*K, that a number of new positions are necessary to operate the aquatic center. Full-time positions for aquatics are needed to accommodate the full operation as well as provide oversight at the outdoor pool during the summer months. Due to the number of lifeguard staff required to operate the facility, a position dedicated to recruiting and retaining staff is critical.

The operations will also have an impact on Parks Maintenance, and a position is necessary to adequately maintain the facility and surrounding area. One has been identified and included in the overall expenses of the operation although these positions may be found in a different budget. This assumes that the facility is aligned with the current Parks and Recreation operations. As such there are no fees associated with HR, IT, landscaping, security, etc. If the facility were to operate as a true stand alone operation, those numbers will need to be calculated into the operational expenses.

Part Time Staffing

Positions	Hourly Rate	Indoor Hours Per Week	Indoor Program Total	Outdoor Hours Per Week	Outdoor Program Total
Building Supervisor	$19.00	0	$0	0	$0
Lead Front Desk (sum)	$17.00	19	$4,463	72	$17,136
Lead Front Desk (sch)	$17.00	19	$11,475	0	$0
Front Desk (sum)	$14.00	82	$16,023	104	$20,384
Front Desk (sch)	$14.00	49	$24,822	0	$0
Lead Lifeguard (sum)	$17.00	51	$12,198	104	$24,752
Lead Lifeguard (sch)	$17.00	51	$31,365	0	$0
Lifeguard (sum)	$15.00	470	$98,595	642	$134,820
Lifeguard (sch)	$15.00	337	$181,980	0	$0
Bldg Attendant/ Custodial (sum)	$17.00	51	$12,079	72	$17,136
Bldg Attendant/ Custodial (sch)	$17.00	51	$31,059	0	$0
Pool Attendant (sum)	$14.00	0	$0	155	$30,282
Pool Attendant (sch)	$14.00	0	$0	0	$0
Lead Concessions (sum)	$17.00	0	$0	49	$11,662
Concessions (sum)	$14.00	0	$0	98	$19,208
Rentals Staff		$9,420			$4,490
Aquatic Program		$13,120			$6,144
Benefit Factor		$34,165			$21,880
Total		**$480,762**			**$307,894**

- B*K factored early arrival and late departure for part-time staff to allow for opening, closing, setting the pool deck and to provide training windows for lifeguards.
- In developing the operational plan, B*K accounted for lifeguards being present whenever individuals were in the pool, regardless of if they were part of a practice, lesson, group exercise, etc.
- The pool would close 15 minutes prior to the rest of the building to allow users to exit the pool, shower and change.

NOTES:

- Staffing has been adjusted based on summer and school year operations.
- Programs are not factored at capacity.
- Rentals are not factored in at capacity.
- Birthday parties are not factored in at capacity.
- It is the belief of B*K that Johnson City will be well versed in these programs and rental opportunities. As such, the initial focus of the operation should be to provide these programs and services with excellent customer service. As the facility moves into years 2 and 3, they can add other specialty programs.

Commodities/Service & Supplies

	Indoor w/ 25-Yard Stretch	Indoor w/ 50-Meter Stretch	Outdoor
Office supplies (forms, ID, film)	$5,000	$6,000	$1,000
Chemicals	$86,603	$111,848	$38,329
Maintenance/repair/materials	$12,000	$15,000	$10,000
Janitor supplies	$15,000	$15,000	$6,000
Recreation/Fitness/Aquatic supplies	$12,000	$12,000	$8,000
Safety supplies	$2,000	$2,000	$2,000
Uniforms	$7,860	$7,860	$8,637
Printing/postage	$5,000	$5,000	$3,000
Concessions (food/supplies)[3]	$8,760	$8,760	$26,445
Vending Opportunities / Re-Sale	$1,000	$1,000	$1,000
Other Misc. expenses	$2,000	$2,000	$2,000
Fuel/Mileage	$1,500	$1,500	$1,500
Sub-Total	**$158,723**	**$187,968**	**$107,910**

3 Factored at 30% of total revenue generation.

Contractual

	Indoor w/ 25-Yard Stretch	Indoor w/ 50-Meter	Outdoor
Utilities (gas, electric)	$240,000	$279,000	$45,777
Water/Sewer	$28,193	$33,518	$15,259
Trash	$4,000	$4,000	$2,500
Insurance (property & liability)[4]	$30,000	$34,875	$11,444
Communications (phone, internet)	$2,000	$2,000	$2,000
Contract services (HVAC, etc.)	$5,000	$5,000	$40,000
Equipment Maintenance	$8,000	$12,000	$5,000
Monitoring (Fire Alarm, Security)	$4,000	$4,000	$4,000
Rental equipment	$2,000	$2,000	$1,000
Advertising	$10,000	$10,000	$5,000
Travel & Training	$5,000	$5,000	$2,500
Membership Dues/Subscriptions	$1,500	$1,500	$1,000
Bank charges[5]	$21,555	$22,869	$15,593
IT licenses & charges (software)	$3,592	$3,811	$2,599
Other	$5,000	$5,000	$2,000
Sub-Total	**$369,840**	**$424,573**	**$157,672**

Capital Replacement Fund

	Indoor w/ 25-Yard Stretch	Indoor w/ 50-Meter	Outdoor
Annual Allocation	$80,000	$93,000	$30,518
Sub-Total	**$80,000**	**$93,000**	**$30,518**

Totals

	Indoor w/ 25-Yard Stretch	Indoor w/ 50-Meter	Outdoor
Staffing	$844,762	$844,762	$377,894
Commodities	$158,723	$187,968	$107,910
Contractual	$369,840	$424,573	$157,672
Replacement Fund	$80,000	$93,000	$30,518
Total[6]	**$1,453,325**	**$1,550,303**	**$673,995**

4 It is not uncommon to have this factored at $0.15-$0.50 per square foot.
5 Credit card fees
6 This total does not include debt service.

7.6 Projected Revenues

The following revenue opportunities developed by B*K, are based on information provided by Johnson City, familiarity with the market, and experience as facility operators. The projections are what B*K feels the department could anticipate achieving in year 1 of the operation.

Revenues

Category	Indoor w/ 25-Yard Stretch	Indoor w/ 50-Meter	Outdoor
Fees			
Daily Admission - Indoor	$62,800	$62,800	$0
Daily Admission – Outdoor Summer	$0	$0	$141,563
Membership	$401,550	$401,550	$0
Seasonal	$0	$0	$241,600
Sub-Total	$464,350	$464,350	$383,163
Programs			
Aquatic	$50,120	$50,120	$31,920
Sub-Total	$50,120	$50,120	$31,920
Other			
Concessions/Resale	$17,520	$17,520	$52,890
Birthday Parties	$54,000	$54,000	$18,000
Pool Rentals	$127,500	$171,300	$28,800
Sponsorship	$5,000	$5,000	$5,000
Sub-Total	$204,020	$247,820	$104,690
Total	**$718,490**	**$762,290**	**$519,773**

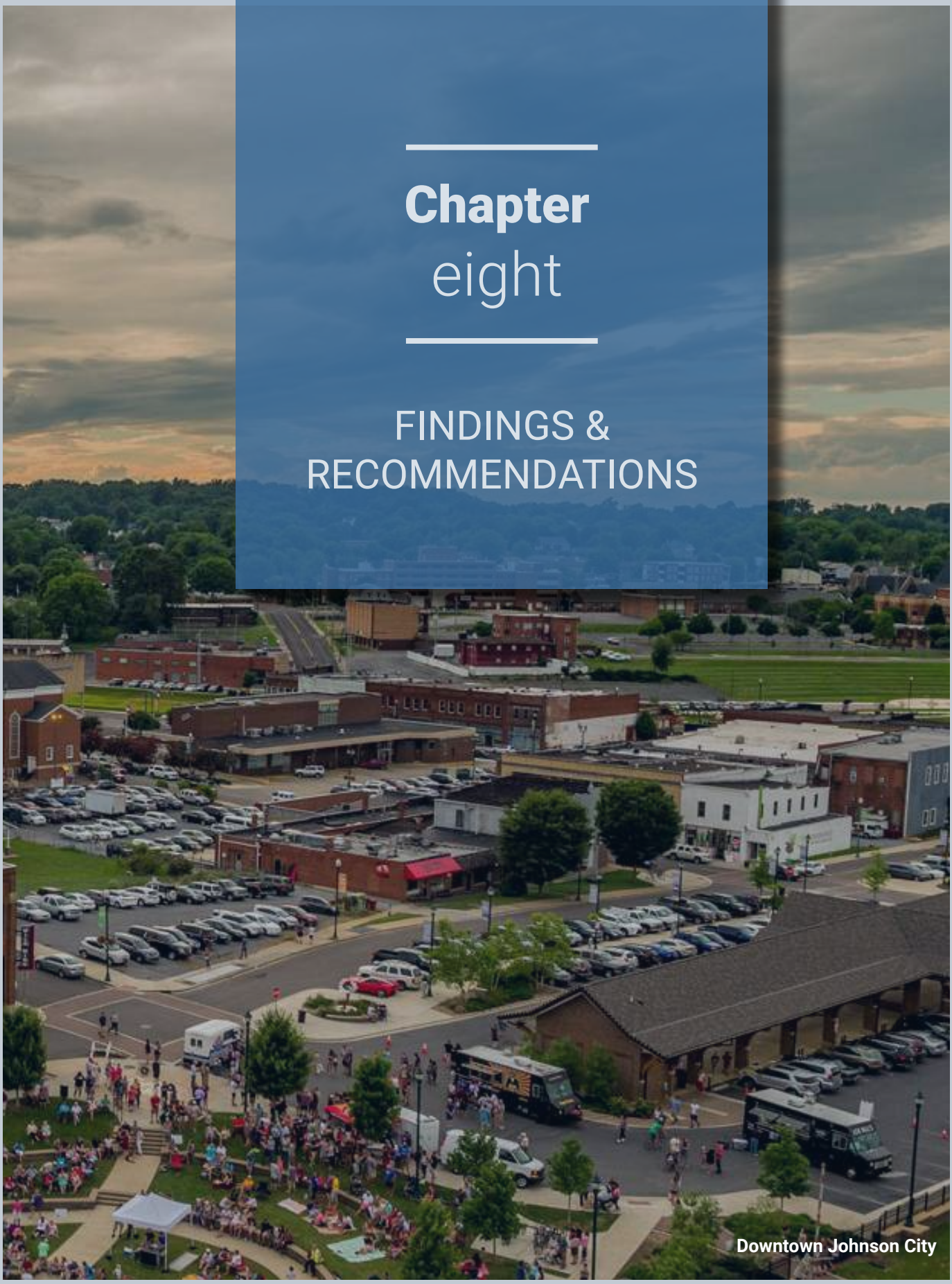
In 2024, the City of Johnson City had approximately 31,175 households for a population of 73,985. The penetration rate utilized for the operation plan was 1.4% of households or 1.5% of the population for the base program. Total annual attendance (daily admissions and pass holders) would be approximately 125,000 for the indoor program and an additional 100,000 for the outdoor program.

Additional Revenue Opportunities (not included):

- Monthly Membership amount is typically withdrawn from the pass holder's bank/credit account on an automatic basis each month.
  - » Many facilities have a higher monthly rate due to the additional costs of processing.
- Not included are Corporate memberships, which typically provide a discount on the membership fee with a minimum number of memberships required.
- Advertising
- Naming Rights

Chapter eight

FINDINGS & RECOMMENDATIONS



Downtown Johnson City

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8.1 Findings and Recommendations

The findings of this feasibility study confirm that Johnson City's existing aquatics facilities are no longer capable of meeting community needs. Legion Street Pool and Freedom Hall Pool have reached the end of their useful life and no longer provide safe, sustainable, or desirable experiences for the public. The small warm-water pool at Memorial Park Community Center serves important wellness and therapy functions, but its limited size and scope prevent it from meeting broader citywide demand. Collectively, these facilities cannot provide the diversity, capacity, or quality expected of a modern aquatics system.

The market analysis demonstrates that the Johnson City service area has a sufficient population base to support a new aquatics facility. Participation rates in swimming and aquatic activities are consistent with national benchmarks, and the lack of modern aquatic centers in the region positions Johnson City to serve as a local and regional hub. At the same time, median household income in the primary service area is below state and national averages, which will limit cost recovery. Consistent with peer facilities nationwide, the new facility will require an ongoing operational subsidy.

Public engagement confirmed broad support for a multi-purpose aquatic facility. More than 1,500 survey responses and multiple stakeholder meetings identified a strong community desire for competitive swim space, learn-to-swim instruction, therapy and wellness programs, and family-oriented recreation. This alignment of market demand and community priorities establishes a clear need for a modern facility.

National and regional trends reinforce these conclusions. Communities are moving away from single-purpose pools in favor of multi-purpose aquatic centers that combine competitive, instructional, therapeutic, and recreational features. To maximize participation, Johnson City's new facility must have a strong recreational orientation. Outdoor aquatic components must also be designed for operational efficiency to ensure that seasonal features are financially sustainable.

After evaluation of potential locations, the Memorial Park Community Center was identified as the preferred site. This location offers central accessibility, adjacency to existing recreation amenities, adequate parking, and the ability to expand through a phased buildout. Locating the aquatics facility at Memorial Park builds upon an existing community hub and creates a single destination for Johnson City aquatics.

The recommended program includes:

- Indoor competition pool (stretch 25-yard/50-meter configuration).
- Indoor leisure pool with zero-depth entry, slides, and water play features.
- Warm-water therapy and instructional pool.
- Outdoor leisure pool and seasonal splash pad.
- Supporting spaces including locker rooms, multipurpose rooms, party rooms, concessions, and spectator seating.

Water Technology, Inc. (WTI) prepared conceptual layouts for these program elements and developed phased cost estimates ranging from $39 million to $49 million depending on implementation. Operational modeling projects cost recovery of ~49-56 percent for indoor 50m model and ~77-85 percent for outdoor seasonal, consistent with similar facilities across the country, which will require Johnson City to plan for an annual subsidy.

8.2 Recommendations

Based on these findings, it is recommended that Johnson City:

1. Pursue development of a new aquatics facility at Memorial Park Community Center as a phased buildout.
2. Adopt the program outlined in this report, balancing competitive, therapeutic, and recreational components.
3. Plan for an ongoing operational subsidy while maximizing cost recovery through memberships, programming, and partnerships.
4. Engage schools, healthcare providers, swim clubs, and regional organizations as partners to broaden use, host tournaments, and share costs.
5. Advance the project into schematic design and detailed cost estimating to refine program elements, confirm construction costs, and establish a funding strategy.

This project represents a significant investment, but one that will deliver long-term benefits for Johnson City. A new aquatics facility will expand recreation and wellness opportunities, strengthen community identity, and position the City as a regional destination for swimming, competition, and family activity.

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LÖSE DESIGN

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