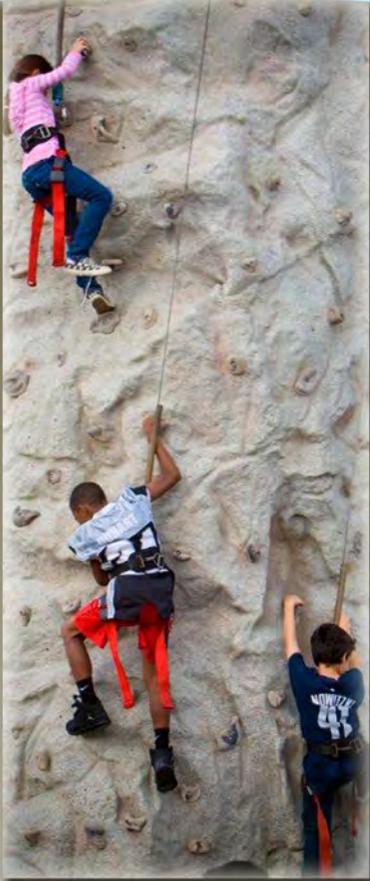


Parks & Recreation Master Plan





Missouri City Parks and Recreation Master Plan



July 2015



ORDINANCE NO. O-15-42

AN ORDINANCE OF THE CITY OF MISSOURI CITY, TEXAS, ADOPTING THE CITY OF MISSOURI CITY PARKS MASTER PLAN; PROVIDING FOR REPEAL; AND PROVIDING FOR SEVERABILITY.

* * * * *

WHEREAS, on or about May 21, 2007, the City Council of the City of Missouri City (the "City") adopted the City's 2007 Parks Master Plan; and

WHEREAS, City staff and consultants have reviewed the 2007 Parks Master Plan and have recommended a new Parks Master Plan (the "Parks Master Plan") to address the changes in the land use and character of property within the City; and

WHEREAS, on or about August 7, 2014, the City of Missouri City Parks Board approved the Parks Master Plan; and

WHEREAS, on or about December 10, 2014, the City of Missouri City Planning and Zoning Commission approved the Parks Master Plan; and

WHEREAS, in accordance with Section 8.04 of the City Charter, the City Council has conducted a public hearing on the Parks Master Plan; and

WHEREAS, all persons appearing at such public hearing who desired to speak and present written evidence on such plan were afforded that opportunity and their comments were duly noted and considered; and

WHEREAS, the City Council desires to adopt the Parks Master Plan, which is designed to benefit the health, safety and welfare of the general public and the citizens of the City of Missouri City by exploiting natural geographies for the enjoyment of the general public; increasing opportunities to engage in healthful, physical activities at little to no cost; providing varied passive and active park facilities consistent with neighborhood attributes; and utilizing and preserving natural creeks, bayous, fauna and flora when and how appropriate; now therefore,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MISSOURI CITY, TEXAS:

Section 1. That the facts and recitations set forth in the preamble of this Ordinance are hereby found to be true and correct.

Section 2. That the City Council of the City of Missouri City, Texas, hereby adopts the City of Missouri City Parks Master Plan which is attached hereto as Exhibit "A" and is incorporated herein by reference as if recited in full.

Section 3. *Repeal.* Ordinance No. O-07-30, adopted by the City Council of the City of Missouri City on May 21, 2007, is hereby repealed. That all other ordinances, resolutions, policies or parts thereof in conflict herewith are, to the extent of such conflict, hereby repealed.

Section 4. *Severability.* In the event any clause, phrase, provision, sentence or part of this Ordinance or the application of the same to any person or circumstance shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Missouri City, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

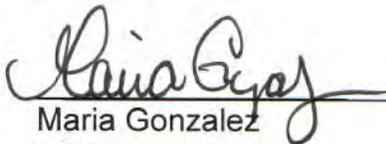
PASSED and APPROVED on first reading this 20th day of July, 2015.

PASSED, APPROVED and ADOPTED on second and final reading this 3rd day of August, 2015.



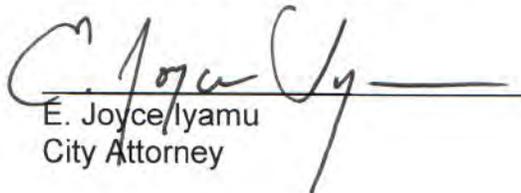
Allen Owen
Mayor

ATTEST:



Maria Gonzalez
City Secretary

APPROVED AS TO FORM:



E. Joyce Iyamu
City Attorney



FOREWORD

TRANSMITTAL LETTER

July 1, 2015

City of Missouri City
Mr. Randy Troxell, Assistant Director of Parks and Recreation
2701 Cypress Point Drive
Missouri City, Texas 77459

Reference: Missouri City Parks and Recreation Master Plan

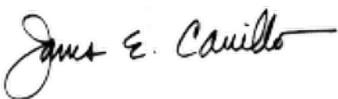
Dear Mr. Troxell:

Halff Associates, Inc. is pleased to submit Missouri City's 2015 Parks and Recreation Master Plan. This document is the culmination of an extensive planning process involving the elected officials, staff, Parks Board, and most importantly the citizens of Missouri City. The plan's recommendations encompass the many varied components of the Missouri City's parks and recreation system - from parks, athletic fields, and indoor recreation to trails and the preservation of open space. Our purpose has been to create a functional road map that outlines the vision for the parks system over the next ten years. This document is intended to guide the parks system, but also incorporates flexibility in responding to unique opportunities as they arise.

We greatly appreciate the opportunity to have worked with you, your citizens, and your staff. We believe that this document will help guide Missouri City as it creates one of the best parks system in the greater Houston area.

Sincerely,

Halff Associates, Inc.



Jim Carrillo, FAICP, ASLA
Vice President/Director of Planning



FOREWORD

ACKNOWLEDGEMENTS



The Missouri City Parks and Recreation Master Plan was developed by the City of Missouri City Parks and Recreation Department with the technical assistance and design help of Halff Associates, Inc. Special thanks goes to the many residents, landowners, business owners, and community leaders for their insight and support throughout the duration of this study. The following individuals are recognized for their contributions to the preparation of the 2015 Parks and Recreation Master Plan.

City Council

Allen Owen, Mayor
Jerry Wyatt, At Large Position #1
Chris Preston, At Large Position #2
Yolanda Ford, District A
Don Smith, District B
Anthony Maroulis, District C
Floyd Emery, District D

Parks Board

Llarance Turner, Chairman
Sharman McGilbert, Co-Chairman
Pamela Andrews
Diane Giltner
Donald Ivory
Don Johnson
Thomasine Johnson
Mark MacInerney
Loveless Mitchell
Rafik Sandford
Buddy Snyder

City Staff

Bill Atkinson, Interim City Manager
Scott Elmer, Assistant City Manager
Randy Troxell, Assistant Director of Parks and Recreation
Shane Mize, Recreation Superintendent

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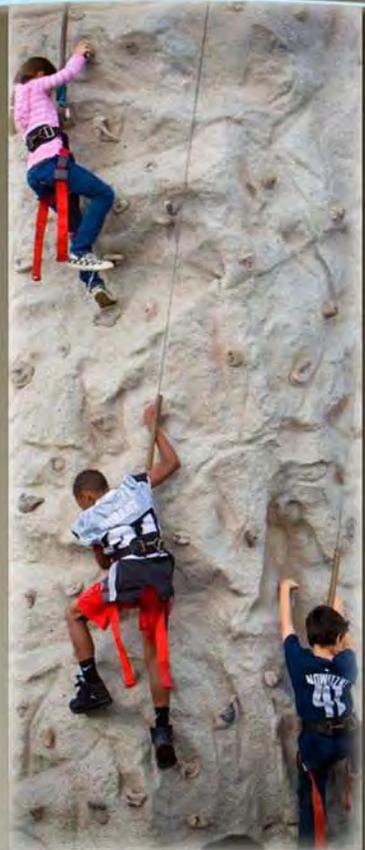
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Introduction to Park Planning



The Need for Park Planning

“The progressiveness of a city may be measured largely by its parks and recreational facilities, for these are the expression of the aspirations of the community beyond the purely material and obviously necessary things...But these have more than esthetic value and have been found to pay real, if indirect, dividends which may be translated into cash. The dividends come in attracting new citizens, in keeping the old citizens, and reducing the labor turnover, and in the tourist trade.”

-George Kessler, City Planner, Plan for El Paso 1925-

Well developed parks and natural areas are often the first places that visitors notice in a community. In fact, parks are one of the most visible elements of a city government at work, and can instill a strong sense of pride in its residents. A great parks system lets both citizens and visitors know that the leadership of the city is interested in providing the best for its citizens. Missouri City has long recognized that recreation plays an important role in the quality of life in the City, and that a strong parks system provides for a healthier environment, improves the well being of children and adults, and reminds us every day about what is attractive and fun in our city.

The purpose of this 2015 Parks and Recreation Master Plan is to provide an assessment of Missouri City’s parks and recreation system. The park planning process allows the citizens of Missouri City to determine what their preferred park and recreation priorities should be for the next five to ten years.

A Parks and Recreation Master Plan is exactly what its name indicates. **Parks** typically refer to land dedicated to outdoor areas programmed for **Recreation**, which refers to both active and passive recreation activities including sports play, jogging, picnicking, etc. The 2015 Parks and Recreation Master Plan aims to:

- Look at the potential growth of the City over the next five to ten years, assess where additional facilities will be needed as the City grows, and assess what types of facilities are most needed.
- Point out opportunities and recommend alternatives for improving the parks system.
- Guide City staff in acquiring land to meet future park and open space needs, specifically in terms of regional parkland.
- Prioritize key recommendations so that the most significant deficiencies are addressed as quickly as possible.
- Guide City staff and City leaders in determining where and how parks funding should be allocated over the next five to ten years.

Purpose of the Master Plan

The primary functions of this Master Plan Update are to assess the current state of Missouri City’s parks, recreation, trails and open space system; define needs and deficiencies in the system; and establish goals and priorities for improving the system. In addition to performing these primary functions, the Master Plan also identifies changing trends locally, regionally and nationally; identifies citizen needs and opinions; and finally the plan recommends changes on various scales - from citywide to site-specific, and of various types - from physical, to regulatory, to operational.

This master plan assesses what is great about parks and recreation opportunities in Missouri City, and what should be done to fill key needs to make the City an even better place to live. It is an ambitious plan, but one that can be tackled by all who live in Missouri City in readily achievable steps. It is a plan that will help preserve Missouri City as a great place to live, work and play.

This document is the culmination of the park planning effort, and is intended to guide the staff and elected officials of the City as they decide how best to meet and prioritize the recreation needs of Missouri City over the next ten years.



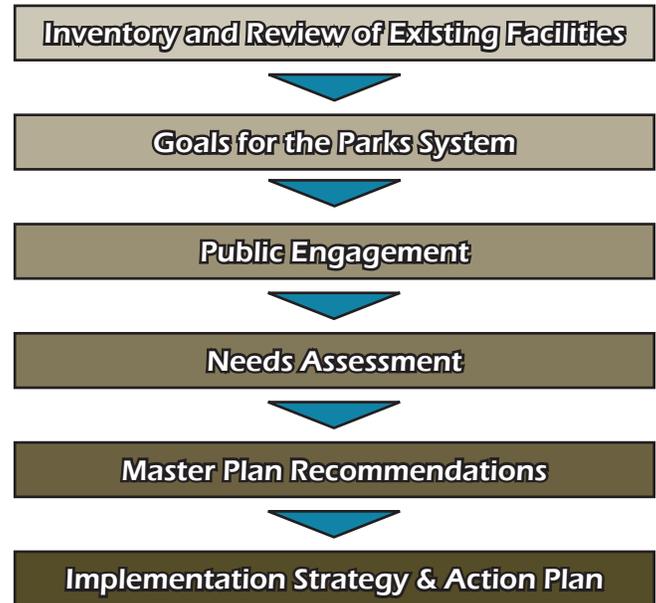
Master Planning Process

The planning process is illustrated by the figure to the right. The single most important element of the master planning process is the extensive interaction with stakeholders, residents, staff, and appointed and elected city representatives. This plan should fully embrace the needs, concerns and dreams of the residents of Missouri City.

The plan is divided into sections that address existing facilities and key needs, then lays out recommendations for each type of park facility and major programs for the City. The plan divides each recommendation into two categories:

- The first part address those actions that are immediate and that should be undertaken to renovate or better utilize existing facilities. It also addresses actions that meet the needs of today's population.
- The second part of each set of recommendations addresses longer range, visionary actions that can maintain Missouri City's parks position as one of the best systems in region.

Steps in the Planning Process



Master Plan Timeframe

The master plan is formulated to address the timeframe from the year 2015 to 2025. Many of the recommendations of the plan are valid for a period of more than ten years, and should be reassessed periodically. Per planning requirements issued by the Texas Parks and Wildlife Department (TPWD), the master plan should be updated after a five year period, or before if any major developments occur which significantly alter the recreation needs of the City. The following steps are recommended for periodic review of this master plan:

- An annual review by the Missouri City Parks and Recreation Department staff should be conducted to review progress and successes.
- Any updates will be reviewed by the Parks and Recreation Advisory Board and the Missouri City City Council.
- More frequent updates may be required if special needs or occurrences require modifications to the plan.
- In all cases, public involvement through citizen meetings, interviews and workshops will be included in any updating process.

Community and Character of Missouri City

As part of the parks master plan, the overall context of Missouri City was evaluated and considered throughout the planning process. This includes the history and culture of Missouri City, the local economy, the demographics and population trends of the community, as well as the physical characteristics of the community that defines the City's image.

The unique aspects of a city determine its image and character, and cause a city to be set apart from others in the region. For Missouri City, these aspects are found in the creeks and drainage ways that flow through the City, the neighborhoods with older trees, and the modern recreational amenities that are offered.

The creeks in Missouri City have tremendous aesthetic and recreational appeal. Ecologically the linear configuration of creeks makes them extremely valuable as landscape corridors for wildlife and migratory birds. Recognizing this ecological value leads to better management of these creeks, and the opportunity for education and experiences interacting with nature. One excellent example of this in Missouri City is the trails along Oyster Creek.

The neighborhoods built in Missouri City have well connected wide sidewalk with rows of mature shade trees, which together create an enjoyable place for people to walk both for recreation and to get to school, to visit their neighbors, and to access the area parks. Large areas of the City, close to the Brazos River, are unspoiled by development, and offer areas of natural beauty within the mix of a suburban environment.

Jurisdiction as the Recreation Provider

The master plan analyzes the park needs of the City and Missouri City's Extra Territorial Jurisdiction (ETJ). The recommendations of this plan should be implemented by the City of Missouri City, and is intended to cover the entire city limits as well as all the areas included in the ETJ. The city limits of Missouri City includes approximately 30.5 square miles, and the ETJ adds 25.1 square miles.

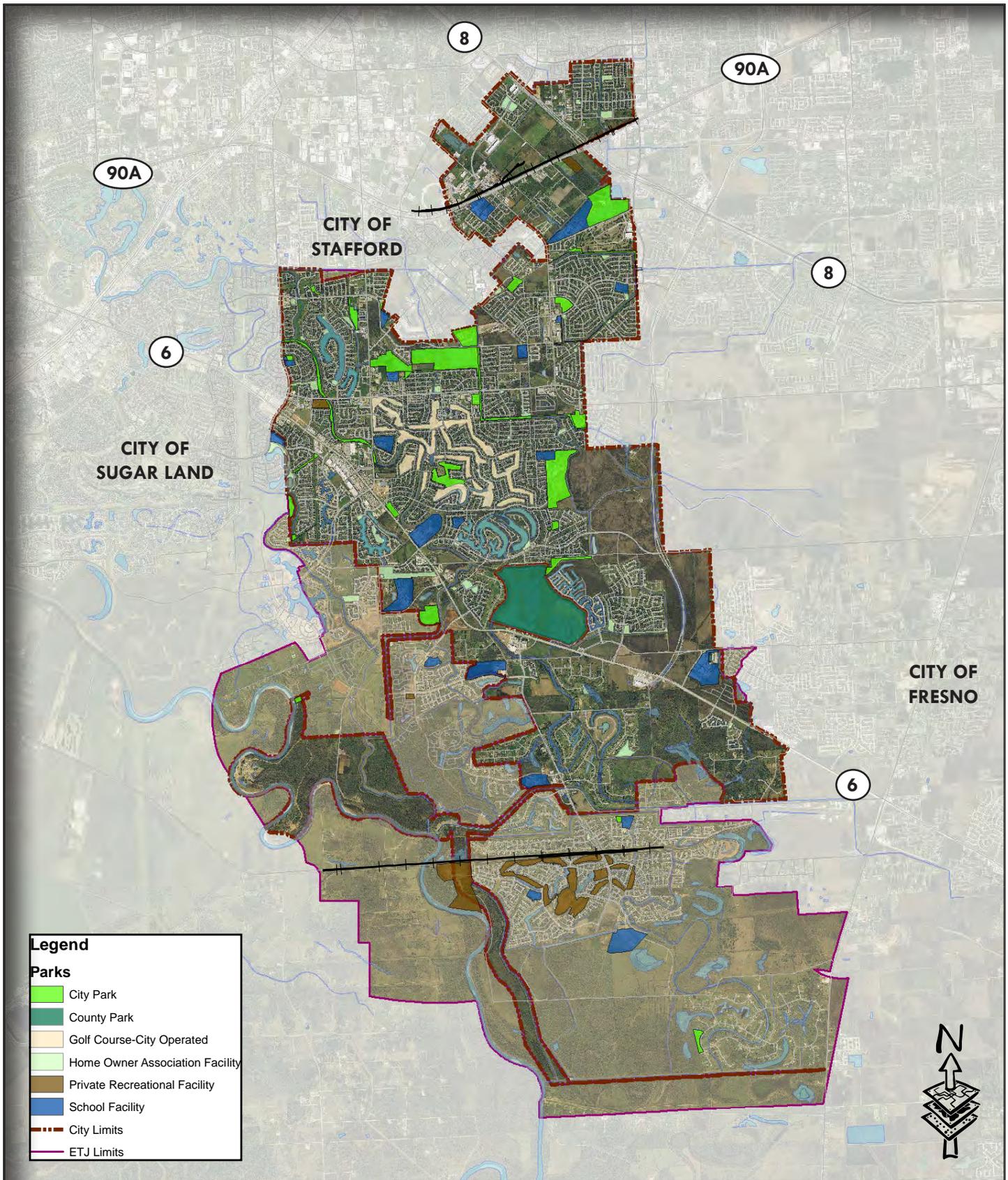
Missouri City is the primary governmental entity charged with providing recreational facilities for the citizens of Missouri City. Ancillary recreational facilities are provided by Fort Bend County, Home Owner Association (HOA) parks, Fort Bend Independent School District on school campuses, and the local YMCA. The implementation of this plan will be lead by Missouri City and the Parks and Recreation Department. However, everyone in Missouri City has a vested interest in ensuring the parks system in the City continues to be one of the best in the region. This includes:

- Primary responsibility - Missouri City Parks and Recreation Department.
- All governmental entities, including the City of Missouri City, Fort Bend County, Fort Bend ISD, and other advisory group entities such as the Parks Board.
- The business community in Missouri City, including property owners, developers, commercial entities, and others.
- All citizens of Missouri City, no matter what part of the City they live in.
- Nearby residents of Fort Bend County that utilize Missouri City services.

The parks master plan follows the general guidelines for local park master plans established by the Texas Parks and Wildlife Department (TPWD). This document will be filed with TPWD and allows the City to better qualify for grant opportunities as they become available.



Existing City Limits

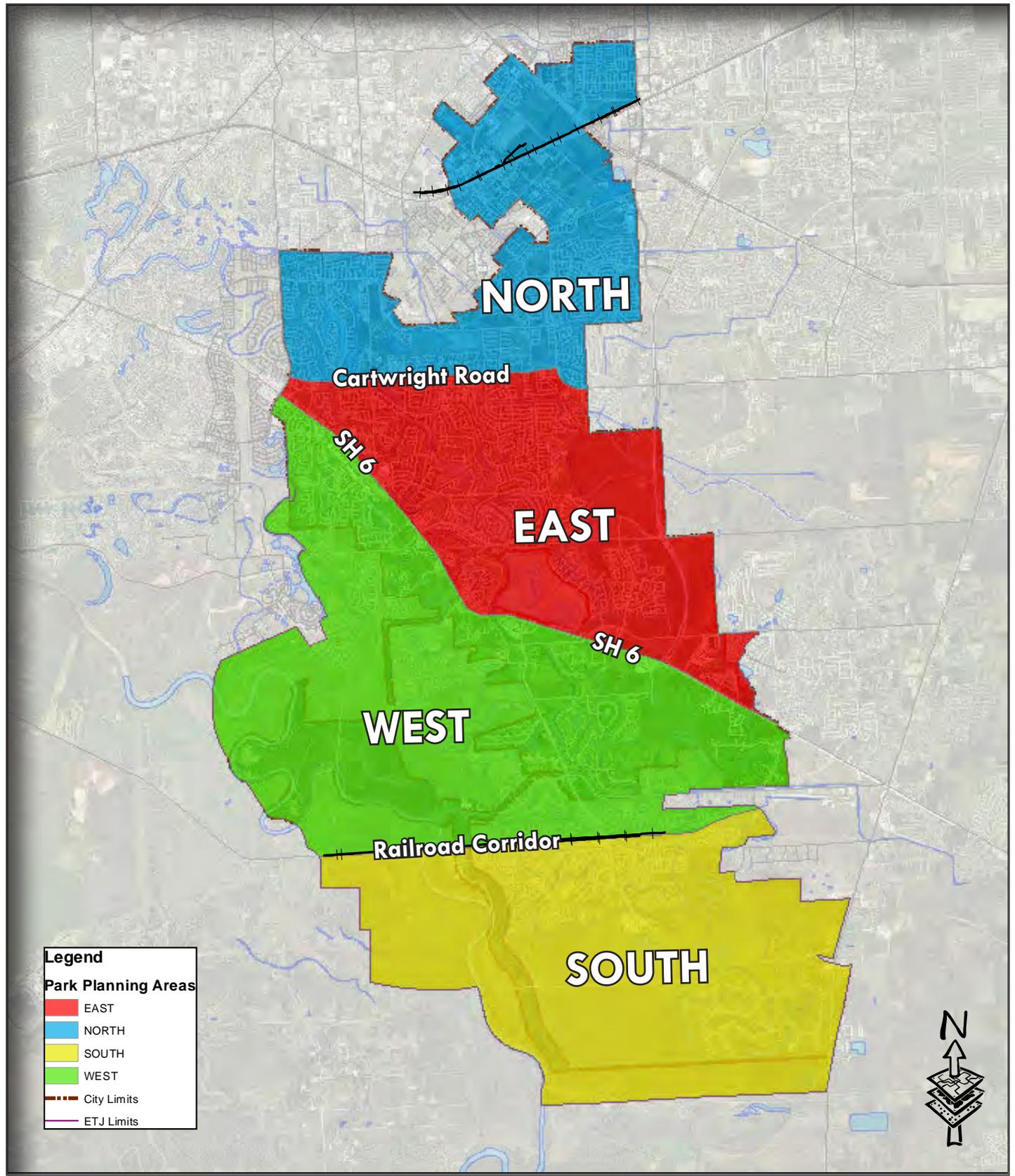


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Park Planning Areas

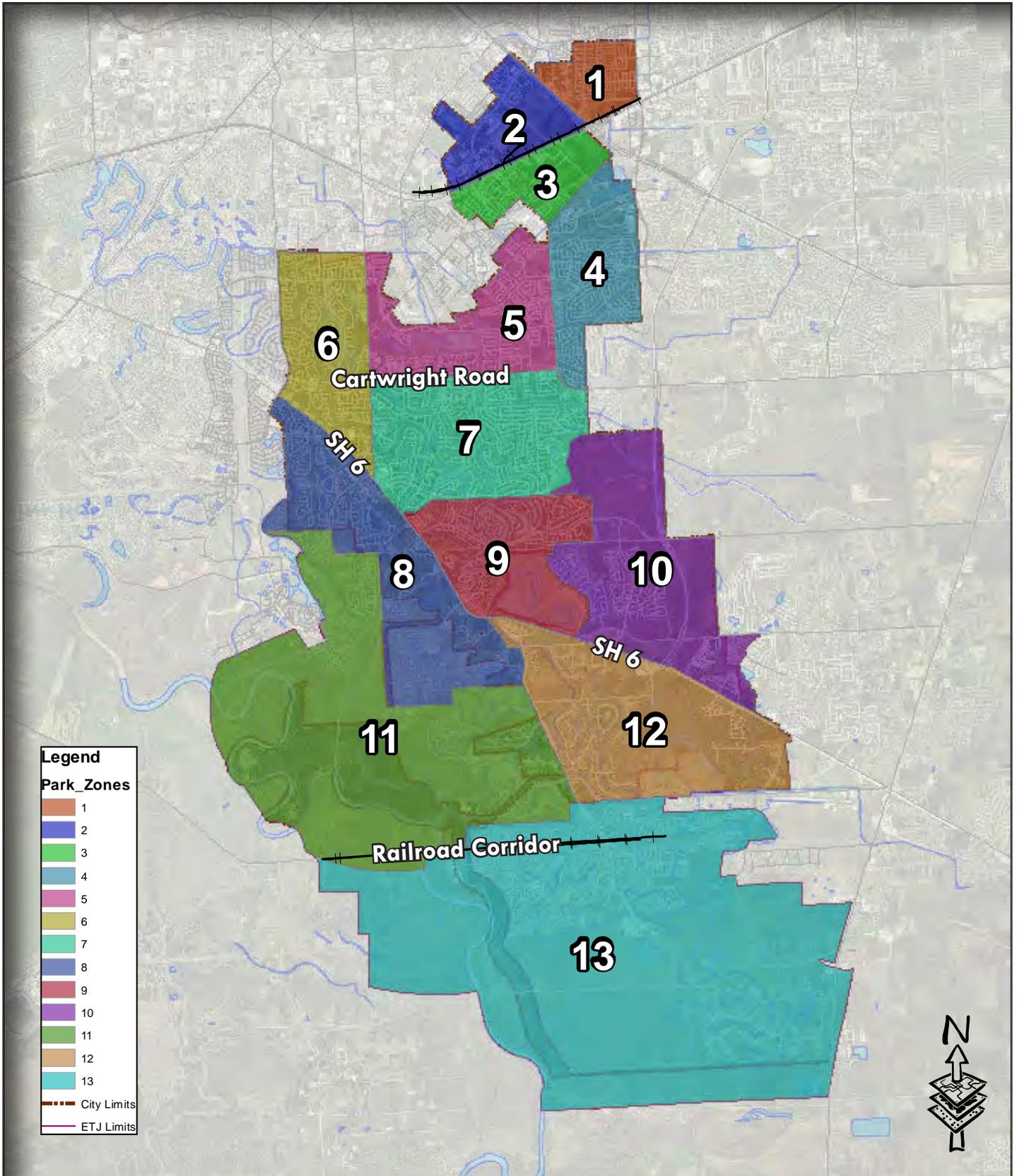
For the purpose of this master plan, park planning areas were defined. The map below illustrates the boundaries of the park planning areas.





Park Zones

Missouri City's 13 designated park zones are shown in the map below.



Trends in the Recreation Profession

The parks, open spaces, and recreational offerings of a city play a large role in defining quality of life, as well as a city's identity and image. Relative to the mobile nature of society today, these offerings play a large role in determining where people choose to reside, which consequently affects population and economic growth. It is therefore important to understand regional and national trends related to parks and recreation facilities. Below, several of the most prevalent trends in the recreation profession are discussed. These are expected to carry forward into the near future and be relevant for the lifespan of this master plan.

The rate of change in the world and the United State is accelerating, and many of these trends are having a direct impact on recreation. These trends include:

- We have many more leisure activity choices. Greatly increased at-home leisure opportunities are available today, such as hundreds of channels on television, sophisticated video games, smart phones, and the internet.
- Safety is a great concern to parents. Many parents no longer allow their children to go to area parks unattended. In many places the use of neighborhood parks has gone down.
- We live in an era of instant gratification. We expect to have high quality recreation, and to be given activities that we will like. Cities must be willing to provide a much broader menu of recreation activities, but must draw the line if those activities become too costly.
- Through the media and internet, we are exposed to the best from around the world. Because of this, we expect our facilities and activities to be of the highest quality possible.
- Concern over the health of our population is rapidly growing. Obesity is now recognized as a nationwide problem. Funding to reduce obesity rates by increasing outdoor activities may be more readily available in the future. It may also be a source of grants for parks and recreation programs and facilities.
- New revenue sources for public funding are difficult to come by. The federal surpluses briefly experienced at the turn of the century are now a thing of the past, and deficit spending is probable for the next decade. As a result, little help can be expected from the federal government, and even popular grant programs such as enhancement funds for trails and beautification are not always available.
- The needs of the Baby Boomer generation and an aging population will need to be addressed in the near future.

Outdoor Recreation Trends

- One of the most important and impacting trends in parks and recreation today is the increased demand for passive recreation activities and facilities. Passive recreation, as compared to active recreation, includes activities such as walking and jogging on trails, picnicking, enjoying nature, and bird watching. It focuses on individual recreation rather than organized high-intensity pastimes





like team athletics (which has long been the focus of parks and recreation departments nationwide). People desire opportunities to use parks and open space on their own time and in their own way.

- Across Texas, the provision of trails is the top priority for citizens. Numerous surveys, public meetings, questionnaires, and in-person interviews have shown that people, on average, place the importance of trails above the provision of any other single type of recreation amenity or facility. Many factors contribute to this, including the demand for passive recreation (as discussed above), greater focus on health, rising transportation costs, and increasing funding opportunities for bicycle and pedestrian facilities.
- Related to the previous two trends, the protection of and access to open space and natural areas is growing in popularity across the nation. As people are increasingly using trails, they generally prefer to use trails that are located in scenic areas in order to enjoy being outdoors.
- While passive recreation is in greater demand, active recreation activities still play a large role in city parks and recreation systems. One major trend over the last few years has been changing participation rates in various City-sponsored league sports. Examples of these changing participation rates include decreased participation in youth softball, dramatically increased participation in youth soccer, and the emergence of new league sports such as adult soccer, kickball, and youth lacrosse. That said, it continues to be the case that league sport participation rates vary greatly from city to city depending, in part, on activities offered by the school district and other organizations such as the YMCA, Boys and Girls Club, and in some cases churches.

Indoor Recreation Trends

- There is a movement away from providing multiple smaller recreation centers to providing a single large center that is within a 15 to 20 minute travel time of its users. This trend responds to increased diversity of programming that can be provided at these larger centers, while also being more convenient for families to recreate together. These types of centers also provide increased staff efficiency.
- There is a trend of combining separate senior activity areas within a large community center. Such an area with a distinct entrance separate from the main center entrance gives the desired autonomy of seniors while providing convenient access to the various opportunities in a recreation center including an indoor walking track, warm water exercising, and adequately-sized fitness areas.
- Many cities today are seeking a higher fee structure to help offset operational costs. Observation reveals a range from a 50 to 60% operational cost recapture rate all the way to a 100% recapture rate across the State of Texas.
- University students today have elaborate recreation and aquatic facilities at their disposal. New graduates are leaving their universities with expectations for cities to provide comparable facilities. Quality of life is an important component of a new graduate's job search and residence decision, and has influenced what new centers will provide.



Photo source: Missouri City Parks & Recreation Department

Environment and Recreation Trends

- As cities and towns continue to grow and expand, citizens are becoming increasingly aware of the diminishing amounts of open space and natural areas in and around their communities. Similarly, this increased awareness parallels an increased interest in preserving open spaces, rural landscapes and natural areas along creeks, lakes, wooded areas, prairies, and other environmentally and culturally significant locations.
- Related to this increased interest in the preservation of open spaces and natural areas is

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an increased interest among citizens to consider alternative development strategies within their communities. This is in order to preserve and provide access to natural areas, decrease traffic congestion, encourage walking and bicycling, enhance property values, and increase and enhance recreation opportunities within their community. Alternative development strategies often considered include mixed-use development, new urbanism, and conservation developments.

- The attributes of a community play a large role in attracting (or detracting) people to a city or region. Research shows that the quality of a city's environment (its climate, park space, trails, and natural resources) is a significant factor in attracting new residents. As such, high-quality, high-quantity parks and open space systems will attract people while low-quality, low-quantity parks and open space systems will detract people.



Photo source: Missouri City Parks & Recreation Department

Baby Boomer Trends

It is projected that there are 77 million Americans born between the years of 1946 and 1964. The Baby Boomer generation comprises one-third of the total U.S. population. With such a significant portion of the population entering into the retirement age, they are redefining what it means to grow old. Many Baby Boomers are opting not to retire at a traditional retirement age. Because of their dedication to hard work and youthfulness, this population is expected to stay in the work force longer because they take pleasure in being challenged and engaged. According to *Packaged Facts*, a demographic marketing research firm, trends that are beginning to take off because of the Baby Boomers include:

- Prevention-centered health care to keep aging bodies free from disease.
- Anti-aging products and services that will keep mature adults looking as young as they view themselves to be.
- Media and internet technology to facilitate family and social ties, recreation and lifelong learning.
- Innovation in housing that allows homeowners to age in place.
- Increasing entrepreneurial activity among those who have retired, along with flexible work schedules that allow for equal work and leisure time.
- Growing diversity in travel and leisure options, especially with regard to volunteer and eco-friendly opportunities.

“A big factor which is affecting levels of sports participation is the ongoing attraction of electronic options which are sedentary in nature such as laptop computers, iPods, Internet chat rooms, hand-held games, computer games, and cell phones. While these items are dynamic innovations, they do consume large amounts of our life and, as a result, cut into the time that could have been set aside for recreational or athletic pursuits. People who want to get in shape need to make exercise a daily priority - just as the ancient Greeks emphasized the importance of a sound mind and a sound body.”

-Tom Cove, President of Sporting Goods Manufacturers Association, 2008-

High School Sports Trends

The National Federation of State High School Associations records the number of high school students participating in sport activities every year. These trends can have an influence on the types of programs that are offered by a city's parks and recreation department. A city can focus on offering youth leagues in the same sports for those that are interested from an early age; as well as offer different teen sports so that services are not duplicated by the athletic opportunities offered by the school districts. The top ten sports in



Texas for **GIRLS** in 2011/2012 (most recent data available) ranked in order by number of students participating are:

1. Basketball - Approximately 22% of all high school girls participating in sports play basketball. However, participation in this sport has declined every year since 2008.
2. Track and Field - This is statistically the number one participated sport across the nation for girls. However, similar to basketball, track and field has decreased in participation across Texas since 2007.
3. Volleyball - This sport has seen a significant increase in participation since 2009, but participation is still not as high as it was in the early 2000s.
4. Softball (fast pitch) - This sport has experienced a slight increase in participation every year since 2003.



5. Soccer - Minimal growth has occurred every year since 2003, and a significant increase in participation occurred this year (2011/2012).

6. Cross Country - Participation in this sport increased this past school year (2011/2012), after dropping dramatically the year prior.

7. Tennis (individual) - This sport has slightly increased in participation every year since 2005.

8. Tennis (team) - A significant increase in participation was experienced for a number of years in the mid-2000s, but it has declined since 2009.

9. Swimming and Diving - This sport has had steady growth in participation since 2003, and it has experienced the highest percentage of growth among all the other sports.

10. Golf - This sport has a tendency to slightly fluctuate in the number of participants every year. Participation has remained fairly consistent since 2003.

The top ten sports in Texas for **BOYS** ranked in order by the number of students participating are:

1. Football - Approximately 34% of all high school boys who participate in sports play football in the State of Texas. Even though this sport has the highest number of participants, it has experienced a minimal fluctuation in either growth or decline every year since 2003.

2. Track and Field - Similar to track and field for girls, this sport for boys has experienced a decrease in participation every year since 2007.

3. Basketball - This sport has experienced a decrease in participation every year since 2008.

4. Baseball - This sport has had an increase in participation every year since 2003.

5. Soccer - There was a drastic increase in participation in the 2006/2007 and 2007/2008 seasons; then, participation declined every year since 2008. However, the 2011/2012 season showed another drastic increase.



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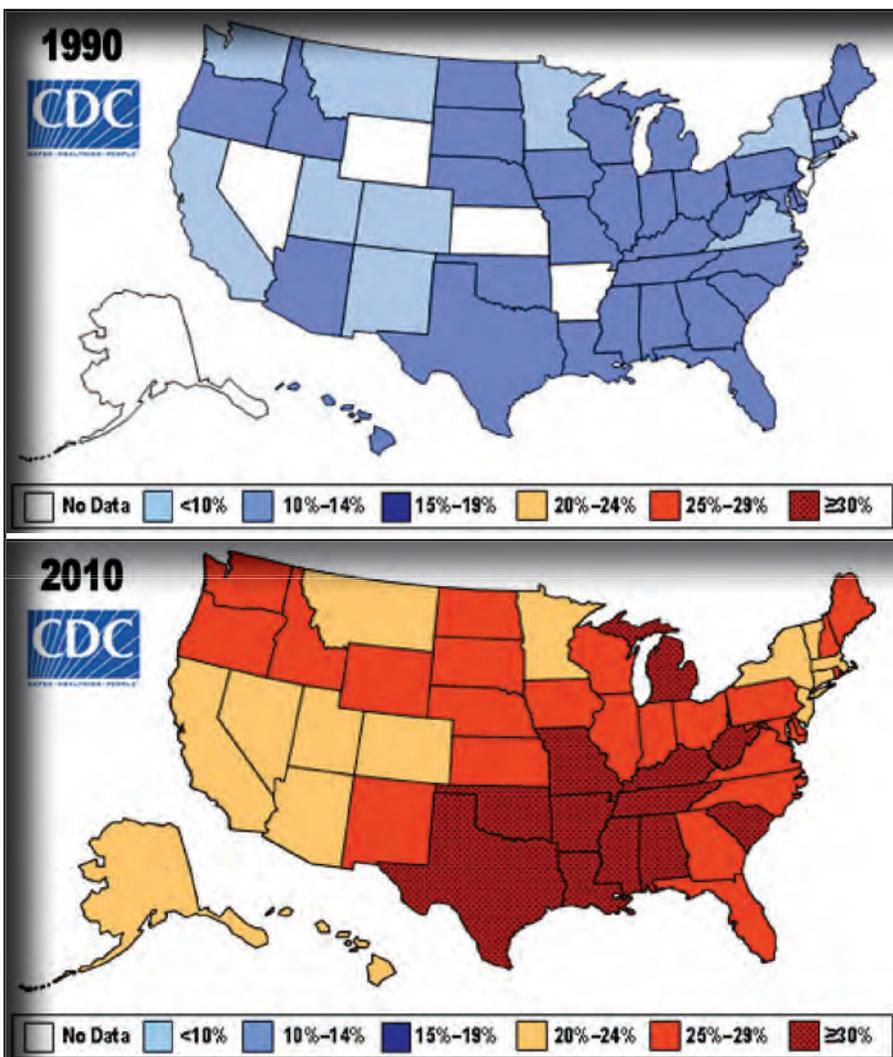
6. Cross Country - This sport has declined in participation every year since 2007, and has experienced the largest percentage of decrease in participation among all the other sports since 2007.

7. Tennis (individual) - This sport experienced steady growth every year prior to 2008, but participation has remained consistent since.

8. Tennis (team) - Participation in this sport fluctuates. It slightly declined the past two years; however, this year (2011/2012) has seen an all time high in the number of participants.

9. Golf - Similar to team tennis, participation in golf also fluctuates from year to year.

10. Wrestling - The most dramatic increase in participation in this sports has occurred this year (2011/2012), increasing from 7,825 participants to 10,580 participants.



Percent of population that is considered obese, by state. Source: Centers for Disease Control and Prevention

Texas - Overall Health Considerations

America's Health Ranking tracks the nation's health by state based on a variety of health issues. The ranking has been done annually for the past 20 years by the United Health Foundation, the American Public Health Association and the Partnership for Prevention. Texas had an overall ranking of #31 out of the 50 United States in 2014. Factors such as the high rate of uninsured people, high prevalence of sedentary lifestyle and obesity, and the high percent of children living in poverty all contribute to a low ranking.

- Texas is ranked last (#50 out of 50) in the category "lack of health insurance." 22.3% of the Texas population does not have health insurance, the highest in the country.
- #19 in "underemployment rate" at 14%.
- #41 in "children living in poverty" with 24.2% of persons under the age of 18 in poverty.
- #36 in "prevalence of obesity" with 30.9% of the population considered to be obese. This is continuing to trend higher.
- #23 in "health status" with 28% of the population reported currently being in fair or poor health.
- #39 in "public health funding" with an average of \$55.21 per person.



Value and Benefits of Parks and Recreation

Developing an excellent parks and recreation system demonstrates a local government's commitment to offer a high quality of life for its residents. A superior parks and recreation system increases the quality of life in a community because of the many benefits it offers. **Parks are the single most visible positive expression of a city government at work.**



Opportunities for relaxation

So many people face increased challenges every day, whether it is from their job, their family life, financial obligations, or any other combination of things. People come to parks to relieve some of their daily stress. Whether it involves kicking a soccer ball, watching their children play on the swings, or fishing in the lakes and ponds, the idea of restoration is that people feel better after they leave a park than when they first arrived. There are some elements of the natural environment that can increase the likelihood of restoration.

- Parks and recreation allow for people to reflect and discover what is on their mind. This can come from fishing, listening to birds, watching a water fountain, enjoying the scenery, or countless other natural occurrences. Placing benches or bridges where people can stop to notice nature increases the opportunities for restoration.
- Parks need to have inviting things to allow the mind to wander. Japanese gardens offer outstanding examples of how small spaces can achieve this. They position viewpoints so the entire garden cannot be seen at once, they have circuitous pathways to make the area seem larger, or they have vegetation that divides larger spaces.
- By providing a slight sense of enclosure, the users of the park feel as if they are somewhere else, away from life's distractions. Enclosures can be achieved by having a tree canopy or planting vegetation along building sides to hide them.

Opportunities for Community Involvement

Parks and recreation offer opportunities for citizens to become involved in the community, such as:

- Having an Adopt-A-Park program lets residents volunteer to help maintain one specific park in their neighborhood.
- Allowing residents to be instructors for a recreation program gives them the opportunity to share and teach their skills to other members of the community.
- Organizing work day projects to install a playground or plant new trees lets residents feel a sense of ownership in the park they helped build.

By providing opportunities for residents to become involved in the community, parks and recreation is also providing opportunities for residents to socialize and meet their neighbors.



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Benefits to At-Risk Youth and Teens

One major benefit of parks and recreation is the impact it can have on at-risk youth. Teenagers are the hardest market to reach. By providing activities and recreation programming for this segment of the population, a city is providing a safe place for the youth to go and usually a supervised environment for them to be in.



Tourism Impacts of Parks and Recreation

People visit a city for the attractions that are offered.

Several attractions in a community include parks and

recreational facilities, as well as festivals, concerts and events that take place in those facilities. **In**

essence, people often visit a city because of the Parks and Recreation Department. For example:

- While visiting New York City, people want to go to Central Park in addition to other historical sites and monuments. Millennium Park in Chicago is rapidly becoming the primary tourist attraction in that city.
- People from surrounding communities often drive to Houston just to jog or bike along the trails in Memorial Park.
- As of 2008, the sports tournaments in Round Rock, Texas held at local city parks had a total economic impact of over \$43 million for the City.

Parks and recreation are also good for a community's economy because of the impact it can have on other businesses. For example hotels often charge more for a room if it overlooks a park, lake, ocean, garden or open space as opposed to a roof top or parking lot. By charging more, the hotel/motel tax that the city receives is higher. Other business impacts include the operations that people start in conjunction with a park or trail. As examples, people can rent canoes and kayaks at Zilker Park in Austin, and people can rent bicycles along the Cape Cod Rail Trail in Massachusetts. Each creates an attraction, a business opportunity, and a possible revenue generation that would not otherwise be there without the park or trail facility.

Environmental Benefits of Parks

Parks and recreation offer several environmental benefits to a community. **Parkland, open space, greenbelts and trails all contribute to ensuring that a community is green and not overrun with concrete and construction.**

Furthermore, parks and open space can control storm water runoff and reduce the likelihood of flooding. Rain water that falls onto impervious surfaces can be slowed down by planting trees which impede the fall rate.

Parks, open space and trees also contribute to cleaner air in a community. Trees can absorb air pollutants that would otherwise increase sulfur dioxide, nitrogen dioxide, and carbon monoxide in the atmosphere. In 1994 in New York City, it was reported that trees removed 1,821 metric tons of air pollution.

Parks and open space protect wildlife habitat as well. Habitats of endangered species and areas specific to migratory patterns are often protected and designated as parkland or open space. By preserving these lands, a community is helping the survival of these species.



Photo source: Missouri City Parks & Recreation Department



Parks and open space contribute to the preservation of land in general. The parks and recreation department within a community ensures that all the land is not developed. It is important to have green space and places of nature within a city. Parks and greenbelts are the most significantly preserved open spaces in a community.

Personal Health Benefits of Parks and Recreation

Parks and recreation at its most basic function offer places for exercise. With heart disease, diabetes, and child obesity rising to staggering numbers, we all need to be more physically active. **Parks and recreation gives us the opportunities to be physical.** Whether it is jogging along a trail, playing on a softball league, taking a fitness class, or swimming at a pool, the most common places for exercise are in our parks and through our recreation programs.



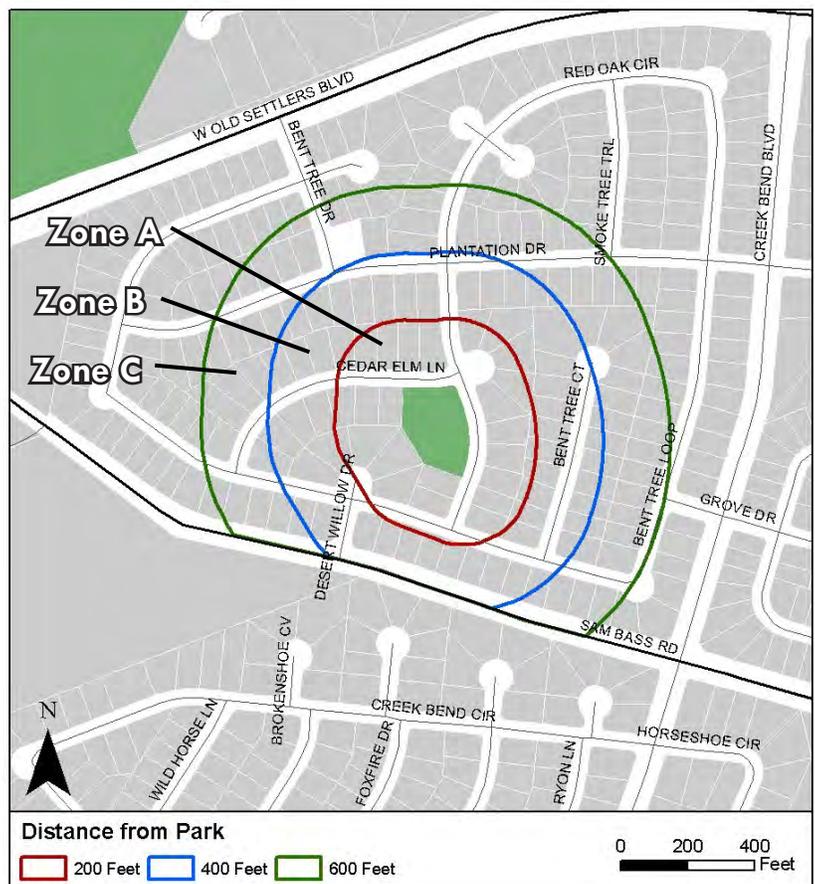
Play is critical for child development. Organized sports, playing on a playground, and even unstructured activities such as tag or hide-and-seek will help children develop muscle strength, coordination, cognitive thinking and reasoning, and develop language skills. Also, play teaches children how to interact with one another. The places where children play are again often at a community’s parks and recreational facilities.

Parks and recreation have been shown to have psychological benefits as well. Physical exercise helps develop new nerve cells which increase a person’s capacity for learning. Being in nature and exercising have both been shown to reduce feelings of stress, depression and anxiety. Parks and nature conjure a sense of relaxation. A person does not have to be among nature for extended periods of time to experience those feelings. Just driving through a park or looking at green space through a window of a building has been shown to be enough to relax the mind.

Economic Benefits of Parks and Recreation

In the parks and recreation profession, there has been a movement in the past few decades to prove that parkland has a direct impact on the property values of homes in a community. The *Proximity Principle*, developed by Dr. John Crompton of Texas A&M University, is a theory that people are willing to pay more for their home when it is close to a park or green space.

- The Proximity Principle divides houses into different zones and the zones closest to a park have the highest value. People living in Zone A pay the most for their home, people living in Zone B pay less than Zone A but more than Zone C, and people living in Zone C pay the least.
- If people pay more for their property, then this results in higher property taxes being paid to the city.
- Finally, park maintenance typically costs much less for a city than providing services to the additional homes that would have otherwise



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been built on the site. For example, if ten additional houses were built on a piece of land instead of a park, it would cost the city more money each year to provide water, sewer, trash service, police and fire protection, and schools for the ten houses than it would to maintain a park.

In a study done by the Trust for Public Lands for the Philadelphia Parks Alliance in June 2008, it was calculated that parks in Philadelphia generate \$18 million in added property tax revenue, \$689 million in increased equity for homeowners near parks, \$16 million in municipal cost savings, \$23 million in city revenue, and \$1.1 billion in cost savings for citizens.

Why Plan for Parks and Recreation Now?

Parks and recreation are necessary components of a city's infrastructure, contribute first hand to the quality of life offered in a city, and planning for parks and recreation cannot fall by the wayside especially as Missouri City continues to grow. Missouri City currently has a great system of city neighborhood parks, large community parks, HOA run neighborhood parks and pools, and the beginnings of an all inclusive trails system. Now is the time for the City to act to ensure that the parks and recreation system becomes even better. This document outlines the steps necessary for Missouri City to revitalize the existing parks, plan for the future growth of the City, and provide all residents with a premier parks system.



Goals for Missouri City's Park System

Goals and objectives for a plan such as this create the foundation for guiding future decisions and development. They are intended to build upon the goals established by the 2007 Parks Master Plan. Goals are an important part of the planning process in that they provide the underlying philosophical framework for decisions and also guide decision makers on issues. The goals expressed in this master plan reflect the desires of the citizens, elected and appointed officials and the staff of Missouri City.

These goals are based on the input received from the public input meetings, the citizen survey, during stakeholder interviews, and meetings with city staff, the Parks Board, and the City Council of Missouri City.

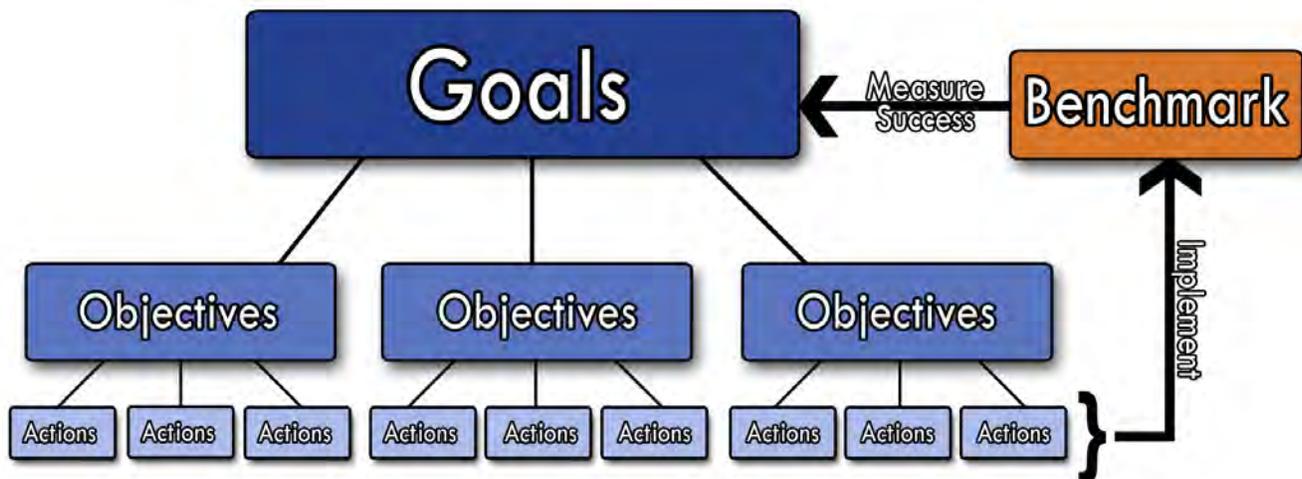
Goals describe the desired outcome for a plan. It is different from a vision in that it speaks directly about a component of the overall system.

Objectives are identified statements or policies that work toward the goal. They are more specific than a goal, and address particular issues related to the elements to achieve the desired goal.

Actions include specific strategies or steps to take in order to reach a specified objective. Action items are specific enough to include a recommended timeframe for implementation, other agencies or entities to partner with, and often a potential cost.

Benchmarks are target measures which the objectives and actions are working toward. It measures progress toward achieving the goal over time, and are ways to measure the progress of plan implementation.

Goals provide the underlying philosophical framework for decisions and also guide decision makers on issues.



Goals of the Master Plan - Adapted from the 2007 Parks Master Plan

Goal #1 The Missouri City Parks and Recreation Department will maintain a high quality of life for its citizens by striving to maintain and develop parkland at a rate recognized statewide as a standard of excellence to be emulated.

Goal #2 The Missouri City Parks and Recreation Department will provide a wide range of recreational programs and classes.

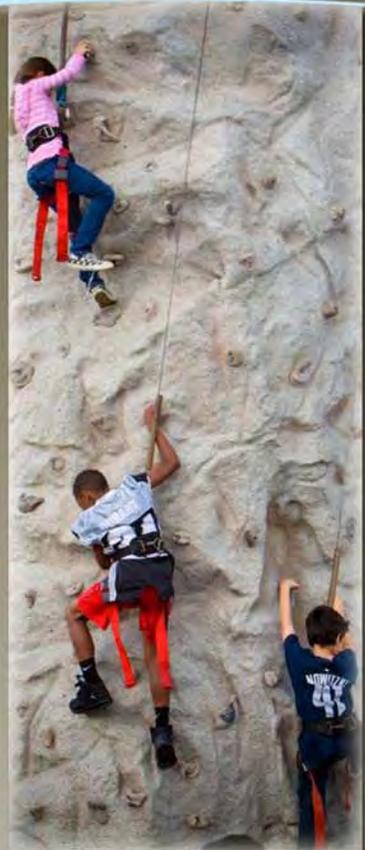
Goal #3 The Missouri City Parks and Recreation Department will connect by hike and bike trails cultural, recreational and commercial areas.

Goal #4 The Missouri City Parks and Recreation Department will provide a variety of special events which offer family oriented activities close to home.

Goal #5 The Missouri City Parks and Recreation Department will enhance the aesthetics throughout the park system.

Goal #6 The Missouri City Parks and Recreation Department will provide park and leisure facilities for a wide range of passive and active recreation opportunities. The Missouri City Park System will create both passive and active areas with the goal to be 50% passive/50% active within each park zone.

Current Context of Missouri City



The Characteristics of Missouri City

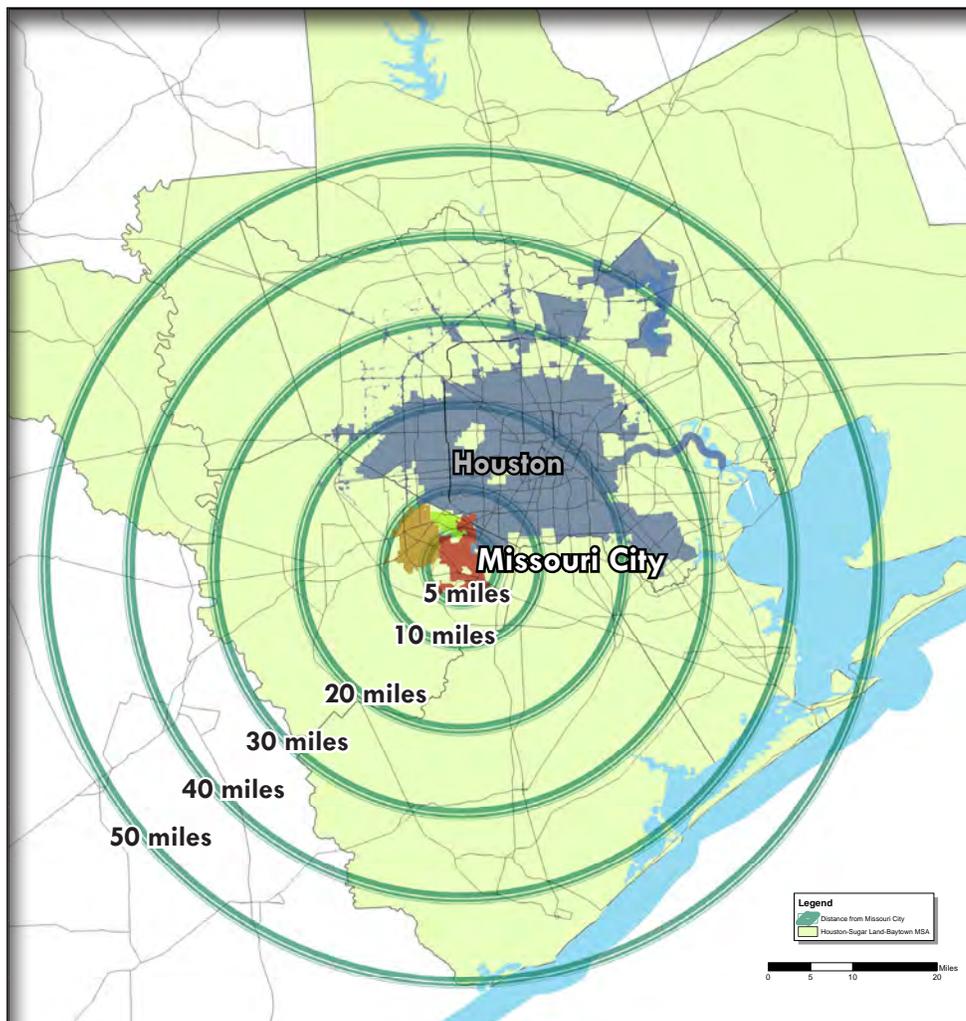
The parks master plan should build upon the best features of Missouri City. It should enhance what Missouri City is, how it came to be, and what the citizens want from their city, rather than trying to make it something that it is not. Understanding the context of the City is an important part of the park planning process.

Both the physical and demographic makeup of the City helps determine the current and future park needs of its citizens. This chapter summarizes the current context of Missouri City in the year 2014, including the history of Missouri City, the demographics and population of the citizens, and the physical characteristics of the City. This chapter also summarizes previous planning efforts in Missouri City.

The History of Missouri City

(Adapted from 2007 Parks Master Plan)

The first settlers in the area arrived in 1894 and the plat for Missouri City was filed soon after. The town was a farming settlement; and following World War II and the expansion of Houston, the citizens voted to incorporate in 1956. The population of Missouri City in 1960 was 600, and now it has changed from an agricultural settlement to a thriving suburban community with a population exceeding 70,000 residents.



The region is characterized by grassy prairies and broad rivers meandering through woodlands of oak and pecan onto marshland near the Texas Gulf Coast. Fort Bend County is bisected by the Brazos River which runs predominantly on the City's south and west border. Historically the river played a vital role in the development of agriculture. More recently the river has created a boundary on Houston's southwest side allowing easy access for development within communities such as Missouri City.

Regional Context

Cities are influenced and shaped by regional physical, economic and social forces. By recognizing its position in the region, and acknowledging and overcoming challenges, the City can benefit from regional opportunities.

Missouri City is located in the greater Texas Gulf Coast region, and is within the Houston-Sugar Land-Baytown Metropolitan Statistical Area (MSA). A MSA includes the central county



containing the core of the population, plus adjacent outlying counties that have a high degree of social and economic integration with the central county as measured through commuting. The Houston-Sugar Land-Baytown MSA includes Harris, Fort Bend, Montgomery, Brazoria, Galveston, Liberty, Waller, Chambers, Austin and San Jacinto counties.

Missouri City is located in the eastern portion of Fort Bend County, with a small portion of the City crossing into Harris County at the north. It is approximately 17 miles southwest of downtown Houston. Missouri City is located just south of Beltway 8 and US 90A, and is bisected by State Highway 6. Because of these major highways, Missouri City has benefitted from residential growth from commuters traveling to other nearby employment centers. The proximity to Houston gives residents of Missouri City easy access to large marketplace areas. It is also ideally located for continued economic development as the area grows in population.

Demographic Profile of Missouri City

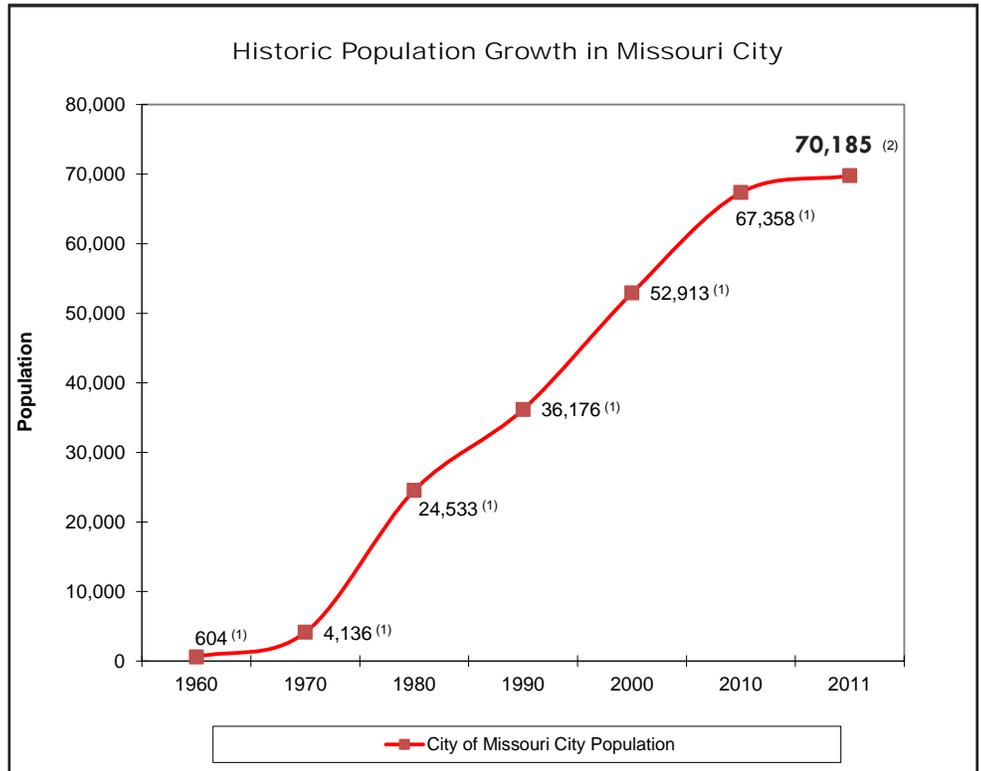
Understanding the current and future size and characteristics of the population to be served is a key part of the park planning process. Establishing a base population for today is the foundation from which the projection of population growth extends and influences the demand and needs for future parks and recreational facilities.

This chapter examines historical growth in Missouri City, and establishes a potential population projection range for the master plan. The U.S. Census Bureau is the primary source for population estimates used by government entities across the nation. Not only does the U.S. Census Bureau estimate the population, but they also collect detailed characteristics of a population that often have planning implications.

However, the U.S. Census does not provide future population projections. Resources that were used to project the future population include the 2009 Missouri City Comprehensive Plan, the City of Missouri City Planning Department, and Houston-Galveston Area Council (H-GAC).

Historical Growth

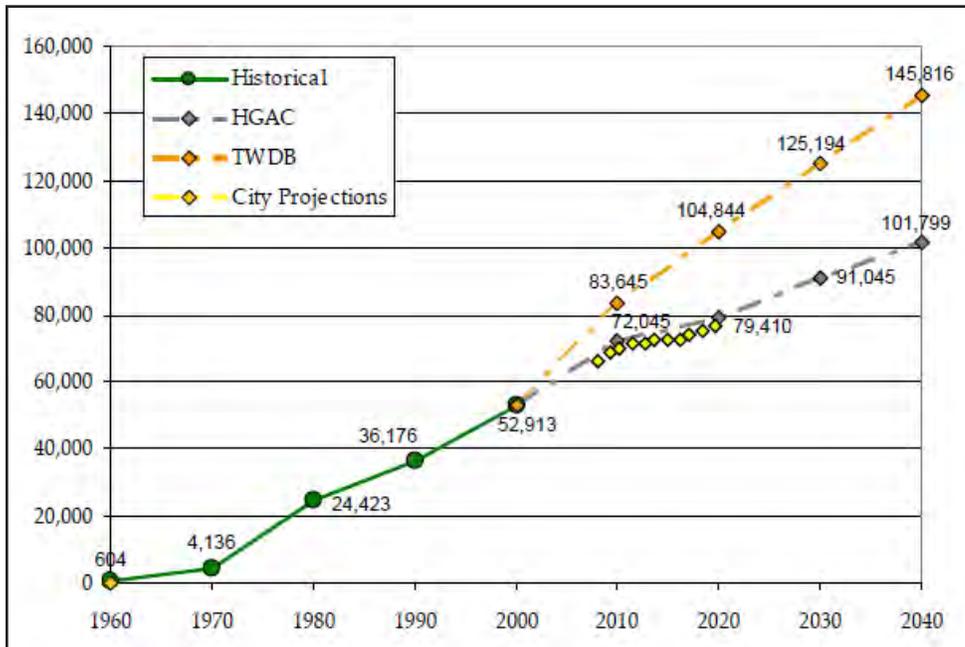
Missouri City's historical growth has occurred in large part over the past three decades. In 1970, Missouri City had a population of only 4,136. However, by 1980, the population had grown to over 24,500 residents. The population was estimated to be 70,185 in 2013. The abundant amount of undeveloped land and the proximity to Houston had significant influences on this population growth over the past several decades.



Source: (1) U.S. Decennial Census; (2) U.S. Census 2013 Estimates (most recent available)

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CURRENT CONTEXT OF MISSOURI CITY



Source: 2009 Missouri City Comprehensive Plan, Kendig Keast Collaborative, page 1.8

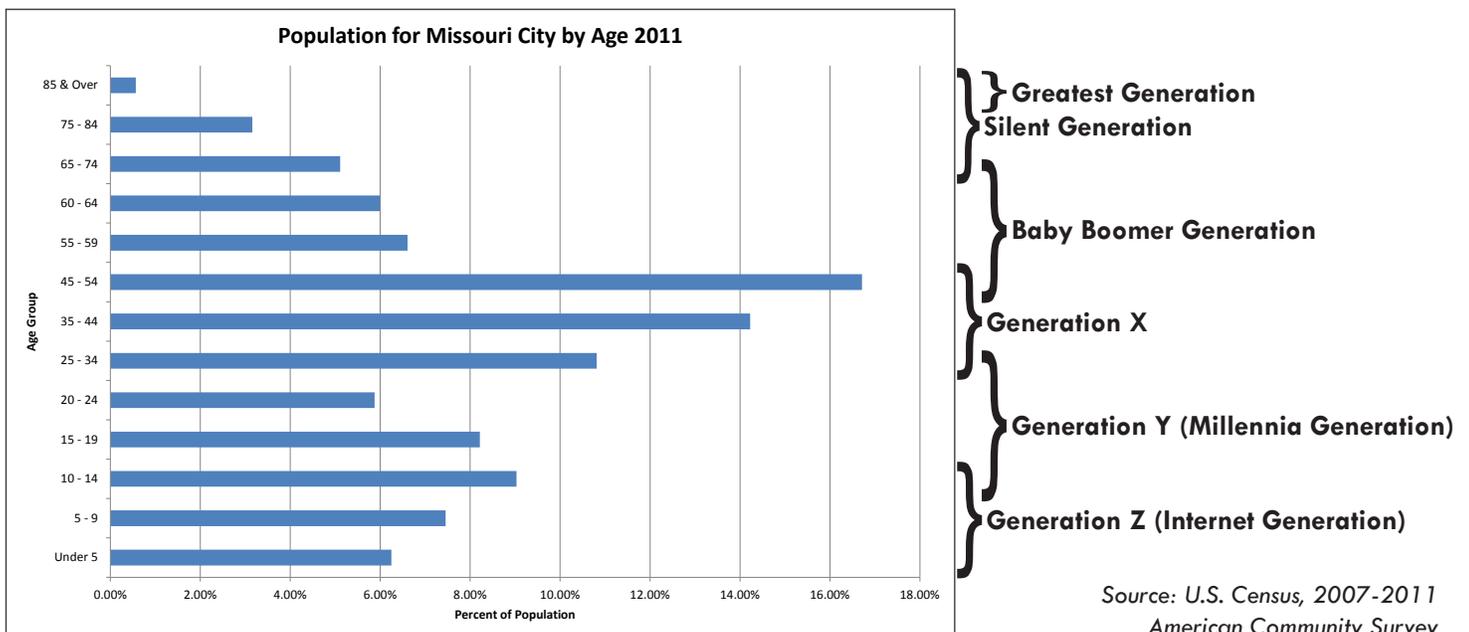
Future Growth Potential

Growth is expected to continue in Missouri City, and already the signs exist of near-term growth. Larger developments are planned, platted and under construction in and around Missouri City, indicating further demand for growth.

The forecasts developed for the Comprehensive Plan incorporated population projections developed by the City of Missouri City Planning Department, H-GAC, and the Texas Water Development Board. The Comprehensive Plan noted that the City and H-GAC projections are more realistic than the Texas Water Development Board projections. Therefore, for the purposes of this master plan, the H-GAC long-term projections will be used in the needs assessment when determining future facility and acreage needs based on the projected population.

Age Characteristics

The demographic information illustrated below represents the characteristics of the population, households, and workforce for the entire City. Evaluating the population by age helps the City understand what the needs and lifestyles are of its residents. Generally, the Missouri City population is dominated by Generation X and the younger Baby Boomer generations. This population, which is roughly between the ages of 25 and 59, accounts for over half of the population in Missouri City. The largest population segment is between the ages 45 and 54, accounting for nearly 17% of the population. 47.5% of the population is male, while 52.5% is female.



Source: U.S. Census, 2007-2011 American Community Survey



Racial and Ethnic Characteristics

The table below portrays the racial and ethnic distribution for the State of Texas, Fort Bend County, and Missouri City. The population estimates for 2011 illustrate that Missouri City has a significantly higher (almost double) African American population when compared to Fort Bend County as a whole, and more than triple when compared to the State of Texas overall.

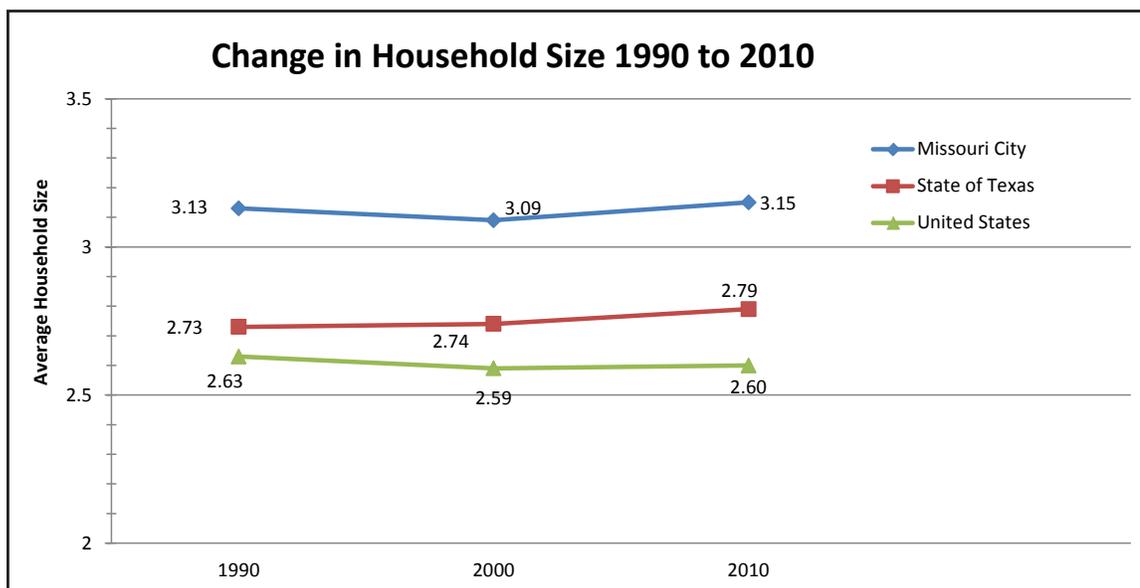
According to the U.S. Census demographic categories, a person of Hispanic or Latino heritage can be of any race. Therefore, in the table below, the percentages add up to more than 100%.

		State of Texas		Fort Bend County, Texas		Missouri City, Texas	
		Population	% of total	Population	% of total	Population	% of total
Race	White	18,093,212	73.0%	307,725	54.4%	23,994	36.2%
	Black or African American	2,917,108	11.8%	121,971	21.6%	28,067	42.4%
	American Indian or Alaska Native	125,101	0.5%	1,620	0.3%	292	0.4%
	Asian	939,558	3.8%	95,134	16.8%	10,117	15.3%
	Native Hawaiian or Pacific Islander	19,966	0.1%	31	0.0%	0	0.0%
	Some other race	2,155,160	8.7%	26,998	4.8%	2,849	4.3%
	Two or more races	524,082	2.1%	11,816	2.1%	954	1.4%
Hispanic or Latino of any race		9,216,240	37.2%	134,069	23.7%	10,789	16.3%

Source: U.S. Census Bureau, 2007-2011 American Community Survey

Household Size Trends

The average household size for Missouri City has fluctuated from one decade to the next since 1990. The State of Texas has experienced a slight increase in the average household size over the past two decades, while the United States overall experienced a slight decrease in household size. Missouri City has still maintained a higher average household size than both Texas and the United States overall.



Source: U.S. Census Bureau

Educational Attainment

When the educational attainment for Missouri City is compared to Fort Bend County, the percentages are relatively similar. However, when compared to the State of Texas overall, Missouri City has a much higher percent of the population that has either a Bachelor's degree or Graduate/Professional degree. The percent of the population less than high school diploma is lower when compared to the State of Texas. The percent of people in Missouri City that have some college education but no degree, as well as the percent that have an Associate's degree, is higher when compared to the State.

Education Level	Missouri City	Fort Bend County	State of Texas
Less than 9th grade	3.7%	5.6%	9.8%
9th to 12th grade, no diploma	4.2%	5.8%	9.8%
High school graduate, GED, or alternative	17.0%	19.4%	25.7%
Some college, no degree	27.0%	22.1%	22.3%
Associate's degree	7.9%	6.4%	6.4%
Bachelor's degree	25.2%	27.1%	17.4%
Graduate or professional degree	15.0%	13.6%	8.6%

Source: U.S. Census Bureau, 2007-2011 American Community Survey

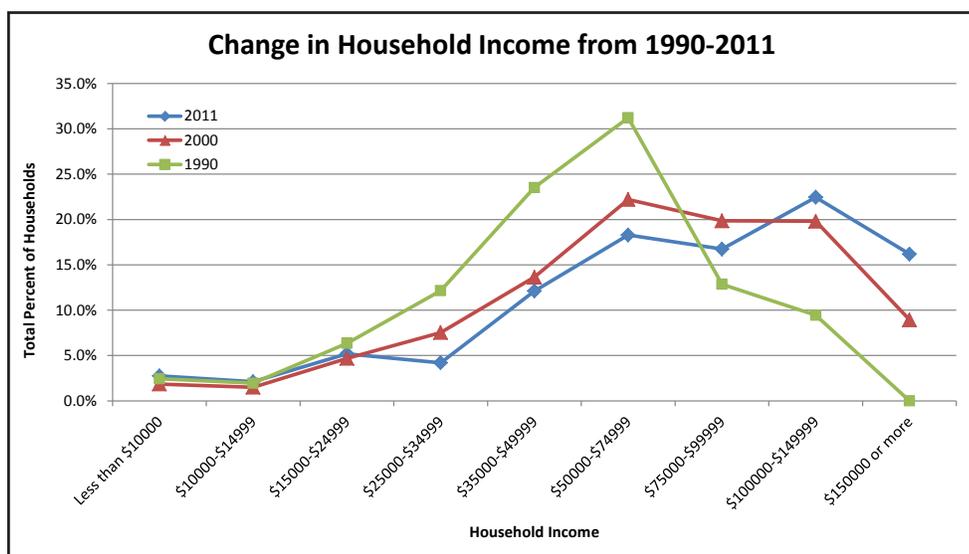
Household Income

The household income for Missouri City is much higher when compared to the State of Texas overall, with the medium income being one and a half times higher. More than 55% of the households in Missouri City have a household income higher than \$75,000 - compared to only 32.8% for the State of Texas overall.

Since 1990, the overall trend for Missouri City is that household income has remained consistent. In the year 1990, 10.7% of households in Missouri City had an income of less than \$25,000, while 22.3% of households had an income of over \$75,000. In 2011, the percent of households with an income of less than \$25,000 had only decreased to 10.1%, while the percent of households with an income of more than \$75,000 had increased to 55.3%. The median household income was \$51,984 in 1990; \$72,434 in 2000; and \$82,634 in 2011.

Income	Missouri City	State of Texas
Under \$25,000	10.1%	24.1%
\$25,000 to \$34,999	4.2%	11.0%
\$35,000 to \$49,999	12.1%	14.1%
\$50,000 to \$74,999	18.3%	18.0%
\$75,000 to \$99,999	16.7%	11.8%
\$100,000 and over	38.6%	21.0%
MEDIAN INCOME	\$82,634	\$50,920

Source: U.S. Census Bureau, 2007-2011 American Community Survey



Source: U.S. Census Bureau



Employment by Industry

The employment by industry percentages are calculated based on the population over the age of 16 that is employed. When comparing Missouri City to the State of Texas, the most noticeable differences are in the construction industry and the arts, entertainment, recreation, accommodation and food service industry being less in Missouri City than in Texas. Conversely the education services, health care and social assistance industry and the professional, scientific, management, administrative, and waste management services industry is much higher in Missouri City than when compared to Texas overall.

Table 4 - Employment by Industry

Education Level	Missouri City	Fort Bend County	State of Texas
Agriculture, forestry, fishing and hunting, and mining:	2.8%	4.5%	2.9%
Construction	4.3%	6.1%	8.3%
Manufacturing	8.6%	9.4%	9.6%
Wholesale trade	2.8%	4.0%	3.2%
Retail trade	11.6%	11.0%	11.5%
Transportation and warehousing, and utilities	6.6%	5.0%	5.6%
Information	1.3%	1.7%	2.1%
Finance and insurance, and real estate and rental and leasing	8.1%	7.6%	6.8%
Professional, scientific, and management, and administrative and waste management services	12.3%	13.1%	10.6%
Educational services, and health care and social assistance	27.1%	23.3%	21.2%
Arts, entertainment, and recreation, and accommodation and food services	6.0%	6.0%	8.3%
Other services, except public administration	3.9%	4.5%	5.3%
Public administration	4.5%	3.7%	4.4%

Source: U.S. Census Bureau, 2007-2011 American Community Survey

Previous Planning Efforts in Missouri City

Part of the planning process for a citywide parks system includes knowing what other recreational providers are planning. Often times, the recommendations of other plans can help fulfill a deficiency, and this can prevent the City from duplicating unnecessary park and recreation facilities. The following pages summarize many different master plans in Missouri City including the 2009 Comprehensive Plan, the 2007 Parks and Recreation Master Plan, and the 2013 Bicycle & Pedestrian Mobility Plan.

2009 Comprehensive Plan

The Missouri City Comprehensive Plan was adopted in September in 2009. Chapter 4 of the Comprehensive Plan focused entirely on parks and recreation. The plan noted four major areas of emphasis for the future of parks and recreation in Missouri City: resource conservation and preservation; balanced, convenient, and accessible parks; connecting parks, schools and neighborhoods; and quality parks.

Resource Conservation and Preservation - The comprehensive plan noted that residents have a desire for more general park/green space. The plan recommended that “sensitive areas should be incorporated into developments as natural amenities, helping to sustain their function as an environmental resource. Doing so requires a regulatory system that balances development efficiency with resource protection.” (*Missouri City Comprehensive Plan*, pg. 4.2)

Balanced, Convenient, and Accessible Parks - The comprehensive plan calls for a variety of spaces and activities that provide a combination of indoor and outdoor facilities, as well both active and passive activity types. In order for the parks system to be successful, it must “meet the individual and collective needs of a diverse residential population.” (*Missouri City Comprehensive Plan*, pg. 4.2)

Connecting Parks, Schools and Neighborhoods - The comprehensive plan emphasizes the importance of having an interconnected trails system which connects neighborhoods to citywide destinations. The comprehensive plan states that it is “important to plan for and protect ‘green infrastructure’ in coordination with development.” (*Missouri City Comprehensive Plan*, pg. 4.3)

Quality Parks - The comprehensive plan recommends that the parks in Missouri City continue to be maintained to a high level because the image of the parks has a direct impact on the overall aesthetic and natural beauty of the City, and can also increase adjacent property values. The comprehensive plan further recommends that the City continue to balance the maintenance of existing parks with the development of new parks. (*Missouri City Comprehensive Plan*, pg. 4.3)

2007 Parks and Recreation Master Plan

The previous Parks and Recreation Master Plan was adopted in May 2007, and is the starting point for this master plan. This plan incorporates the goals and park standards that were developed during the 2007 plan. The needs assessment noted that in 2015, there would be a 660 acre deficit of parkland based on the future population. One of the significant needs in 2007 was to acquire land for a regional park.

The demand-based needs assessment in 2007 noted that facility needs included: a dog park, multi-use trails, general park/green space, shaded picnic areas, restrooms, water activities, soccer fields, football fields, a skate park, and a spray park.

The table on the following page shows the High Priority Phase I Recommendations of the 2007 master plan, and the current development status of each recommendation.



Table 5 - Status of 2007 Master Plan Recommendations

2007 Recommendation	Current Status
Citywide trails master plan	Completed
Phase I of trails construction based on Trails Master Plan	
Redevelop Roane Park	Completed
Acquire additional land at Independence Park	
Develop Phase II of Independence Park	
Develop Recreation Center at Kitty Hollow Park (interlocal agreement with County)	City built recreation center on city-owned land
Develop special events park at Kitty Hollow Park (interlocal agreement with County)	
Initial development of Brazos River Park	Incomplete
Develop Oyster Creek Trail	Complete
Develop Freedom Tree Park	Ongoing
Develop GWCA Trail Phase II	Incomplete
Acquire and develop two 25-acre neighborhood parks	
Develop Bermuda Dunes	Maintained as open space
Develop Crescent Oak Village Section 7	Maintained as open space
Develop Lexington Square property	Incomplete
Develop First Colony Trailhead 2	Incomplete
Acquire land (50 acres) and hold for future neighborhood park development	MacNaughton Park, Recreation/Tennis Center, Herrin Tract, land south of Community Park
Acquire land (100 acres and hold for future community park development in Park Zone 12	Incomplete
Acquire land for a regional park	Incomplete

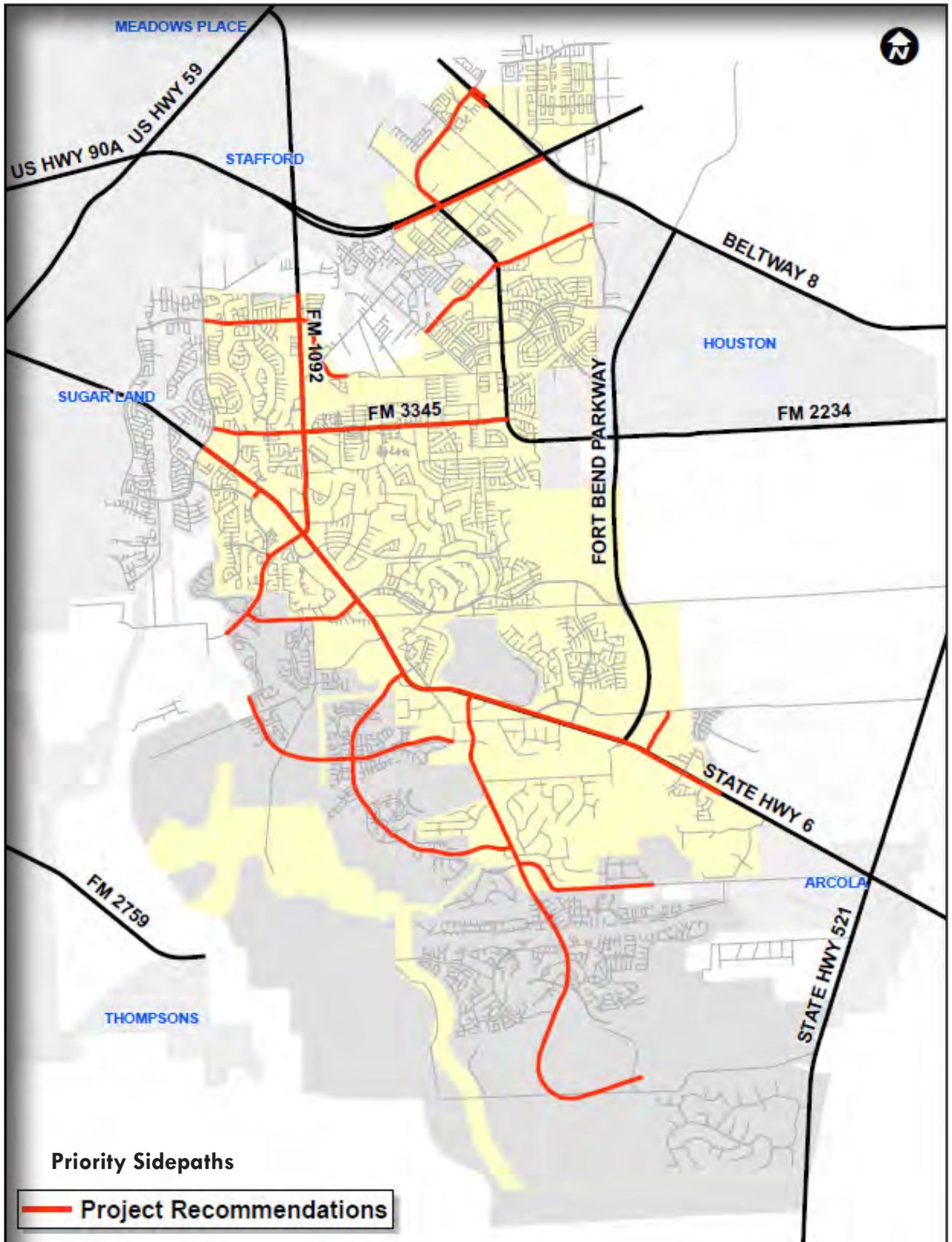
2013 Bicycle and Pedestrian Mobility Plan

The Bicycle and Pedestrian Mobility Plan was completed earlier this year, and is pending adoption. This plan has many recommendations that correlate directly with parks and recreation in terms of sidepaths and off-street trails. High priorities for sidepaths include the following streets:

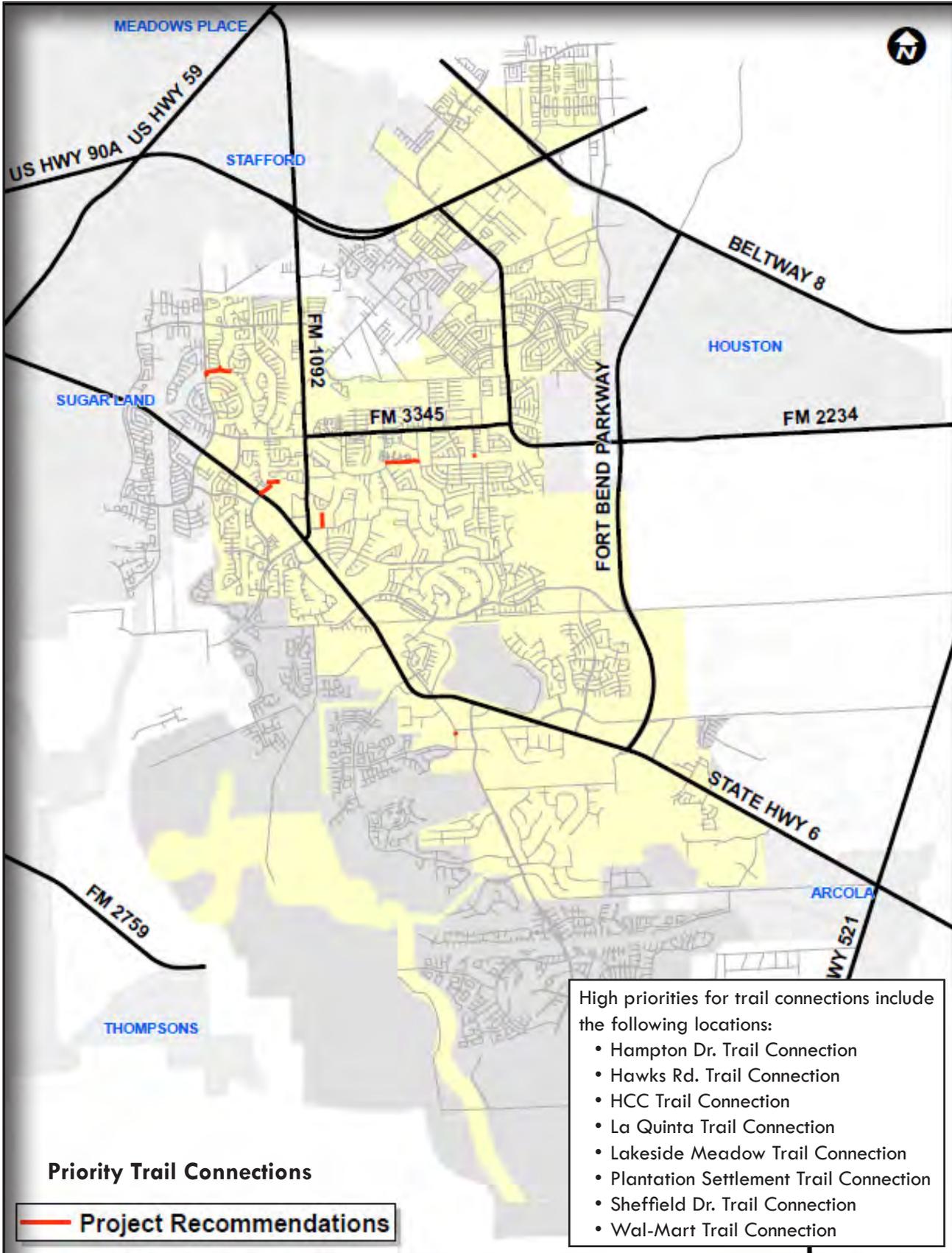
- Beltway 8
- Buffalo Run
- Cartwright Rd.
- FM 1092
- Gessner Rd.
- Hurricane Lane
- Independence Blvd.
- Lexington Blvd.
- LJ Pkwy.
- McKeever Rd.
- Oilfield Rd.
- Riverstone Blvd.
- Scanlin Rd.
- SH 6
- Sienna Pkwy
- Sienna Pkwy Extension
- Sienna Ranch Rd.
- Sienna Springs Blvd.
- Steep Bank Trace
- University Blvd.
- US 90A

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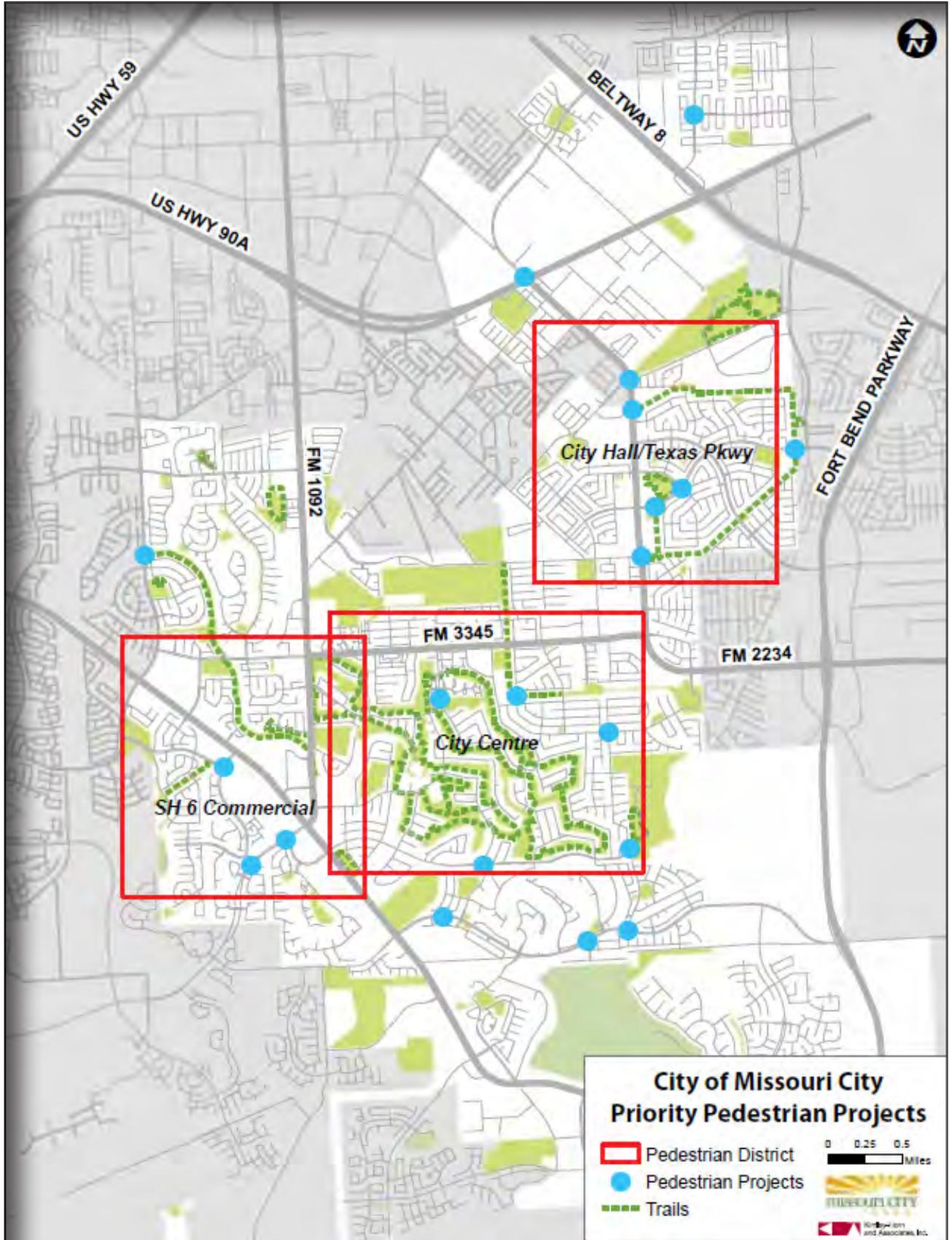
Priority Sidepath Recommendations; source: 2013 Bicycle and Pedestrian Mobility Plan



Priority Trail Connections Recommendations; source: 2013 Bicycle and Pedestrian Mobility Plan

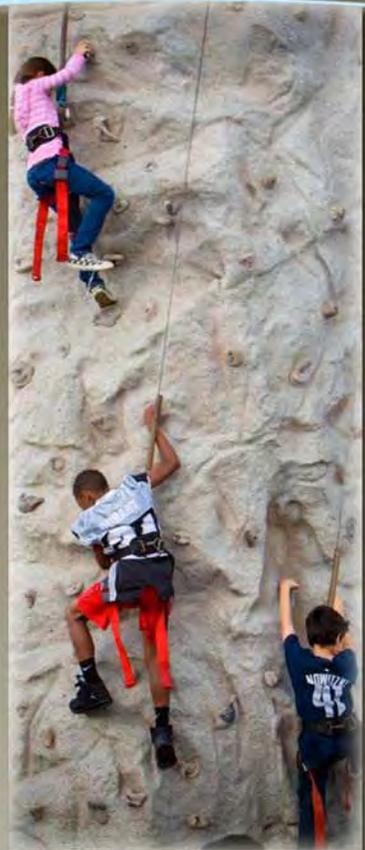
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Priority Pedestrian Project Recommendations; source: 2013 Bicycle and Pedestrian Mobility Plan

Plan Process and Public Engagement



Public Input Process

Public input is a critical part of any planning process. Public entities work for their citizens by providing and managing the types of park facilities the residents and taxpayers of the community want to have. In essence, our citizens are our “customers” and it is the City’s responsibility to provide what our customers seek. In the park planning process, citizen engagement helps identify what types of existing facilities are being used, where key deficiencies may occur, and where the citizens of Missouri City would like to see their funding targeted. In other words, the residents of a community determine what they want to have in their city through their current use of those facilities and through their input.

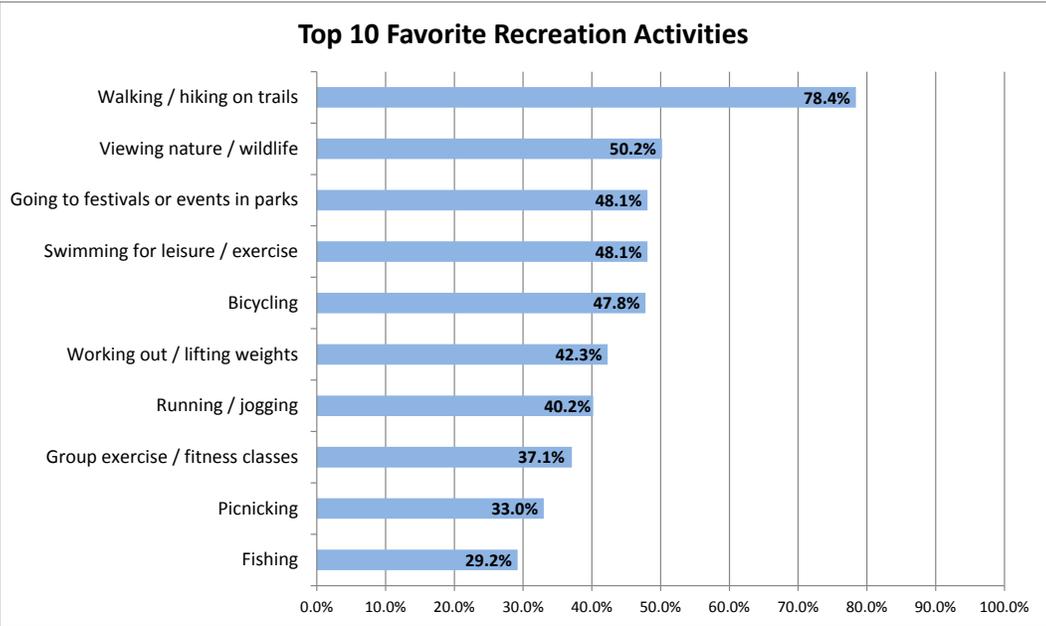
This master plan incorporates an extensive amount of public input, utilizing multiple alternative input methods. By using these methods, feedback from many varying parts of the community were received, leading to a broader consensus on the direction that the master plan should take. Each method represents a snapshot, that when combined create a picture of current issues. This input is combined with other population and demand based methods to create the current park needs assessment. The multiple methods that were used to generate citizen input include:

- Citywide online survey (293 responses)
- Targeted Youth survey (77 responses)
- Interviews with key stakeholder groups (12 representative groups)
- Citywide public meeting/open house
- Three presentation and workshops with the City’s Parks Board

Online Survey Results

An online survey was conducted as part of the parks and recreation planning process. The survey was designed to examine residents’ current participation in recreational activities; and it also assessed recreational needs in Missouri City. The survey was linked through the City’s website, and was available to all residents in Missouri City and its ETJ. Approximately 293 surveys were

completed. Over the next several pages, the key results of the online survey are shown.



What are your favorite recreational activities?

Residents were first asked what their favorite recreation activities are. This establishes a baseline for what type of activities people enjoy doing in Missouri City. The top ten activities are shown in the graph to the left. Walking and hiking on trails was the most popular activity, with over three-fourths of survey respondents indicating they enjoy this activity.



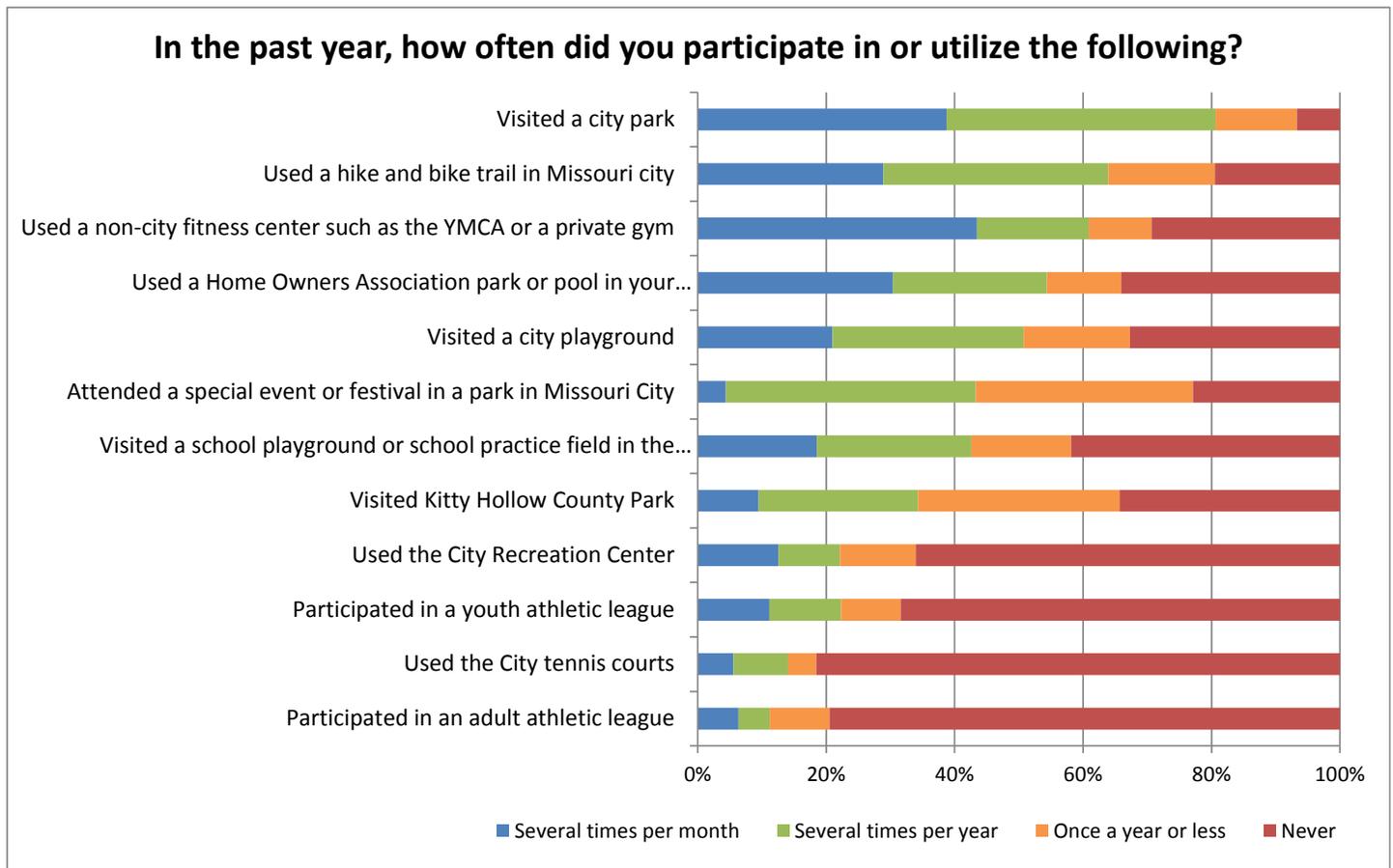
In the past year, how often did you or your family participate in or utilize the following?

80% of survey respondents have visited a city park more than once within the past year. 54% also indicated that they have used a Home Owners Association park or pool in their neighborhood more than once within the past year. This demonstrates a high level of usage for parks in Missouri City.

29% of survey respondents have used a hike and bike in Missouri City several times per month within the past year. An additional 35% have used a hike and bike trail several times within the past year.

43% of survey respondents indicated that they have used a non-city fitness center such as the YMCA or a private gym several times per month within the past year; while 13% have used the City's Recreation Center several times per month within the past year.

20% of the survey respondents have participated in an adult athletic league within the past year, and 18% have used the City's tennis courts within the past year.



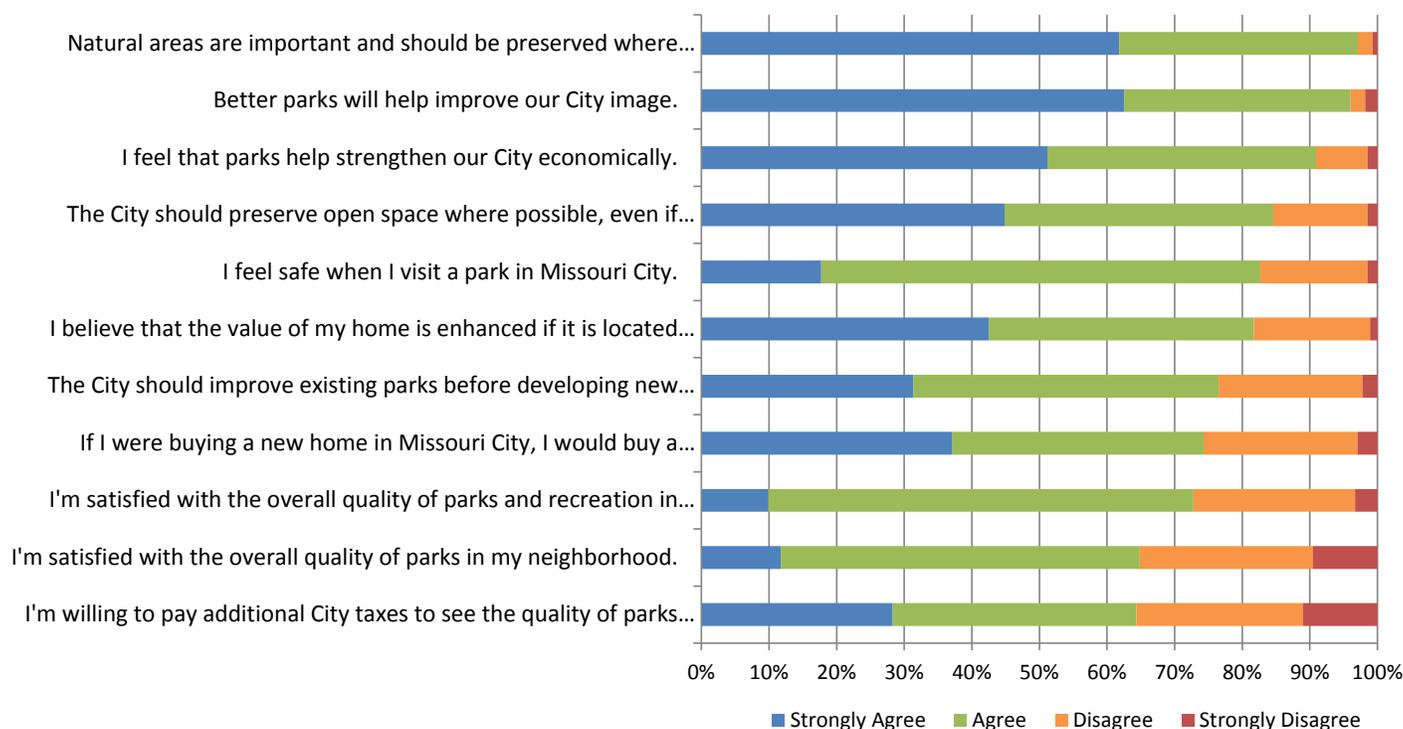
How strongly do you agree with the following statements about parks in Missouri City?

The vast majority of the survey respondents, 97%, agree or strongly agree with the statement that natural areas are important and should be preserved where available. Additionally, 85% agreed that the City should preserve open space where possible, even if some of it must be purchased.

96% of survey respondents agreed or strongly agreed that better parks will help improve the City's image. 91% also agreed that parks help strengthen Missouri City economically. 64% also agreed that they would be willing to pay additional City taxes to see the quality of parks and recreational amenities upgraded.

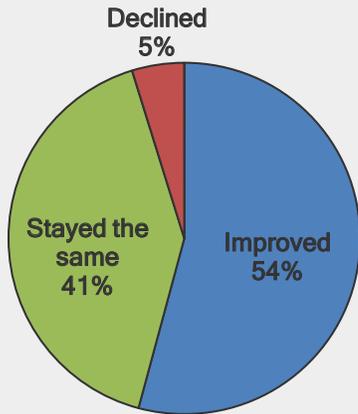
73% of survey respondents are satisfied with the overall quality of parks and recreation in Missouri City; while 65% are satisfied with the overall quality of parks in their neighborhood. This indicates that while people are satisfied with parks, they are not as satisfied with the parks near where they live. Any survey of residents in the future regarding parks should include these questions, and the City should set a goal to increase both percentages when updating this plan in the future.

How strongly do you agree with the following statements?





In the past five years, do you feel that the quality of parks and recreation in Missouri City has improved, stayed the same, or declined?



In the past five years, do you feel that the quality of parks and recreation in Missouri City has improved, stayed the same, or declined?

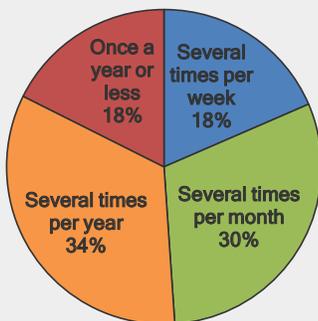
When asked this question, more than half of the survey respondents felt the quality of parks and recreation has improved over the past five years (54%). Only 5% felt that it has declined. One goal when conducting parks and recreation surveys in the future should be to increase the percentage of residents who feel that the quality has improved.

What is your favorite park in Missouri City?

This was an open-ended question where respondents could list any park within the City that they consider their favorite. The top five parks that were listed as people's favorites were:

1. Kitty Hollow County Park 21%
2. Buffalo Run Park 13%
3. Community Park 11%
4. Oyster Creek 10%
5. Glen Lakes 3%

How frequently do you visit that park?



How frequently do you visit that park?

When asked how often they visit their favorite park, 18% visit several times per week, and an additional 30% visit several times per month. The results are shown in the chart to the left.

What amenities or recreation features would you add to improve that park?

Survey respondents were asked the open-ended question of what type of amenities or recreational features they think should be added to their favorite park. In essence, they were being asked what types of amenities do they feel are missing from that park. The top five answers were:

1. Trails 19%
2. Swimming Pool 7%
3. Playground 6%
4. Trees 5%
5. Lighting 4%

Do you go outside the City of Missouri City to participate in recreational activities, sports or fitness programs?

67% of survey respondents indicated that yes they do go outside of Missouri City for recreation, while 29% said no and 4% checked that they do not know whether or not they go outside of Missouri City for recreation.

If you go outside of Missouri City for recreation, what city do you primarily travel to?

The people who indicated that they do go outside of Missouri City for recreation, where then asked what cities they travel to. The top four cities are listed below.

- | | |
|---------------|-----|
| 1. Sugar Land | 65% |
| 2. Houston | 30% |
| 3. Pearland | 5% |
| 4. Stafford | 2% |

If you go outside of Missouri City for recreation, what activity or sport do you primarily participate in?

For the people who indicated that they do go outside of Missouri City for recreation, there was another follow up question asking what sport or activity they participate in while in other cities. The top five responses are listed below.

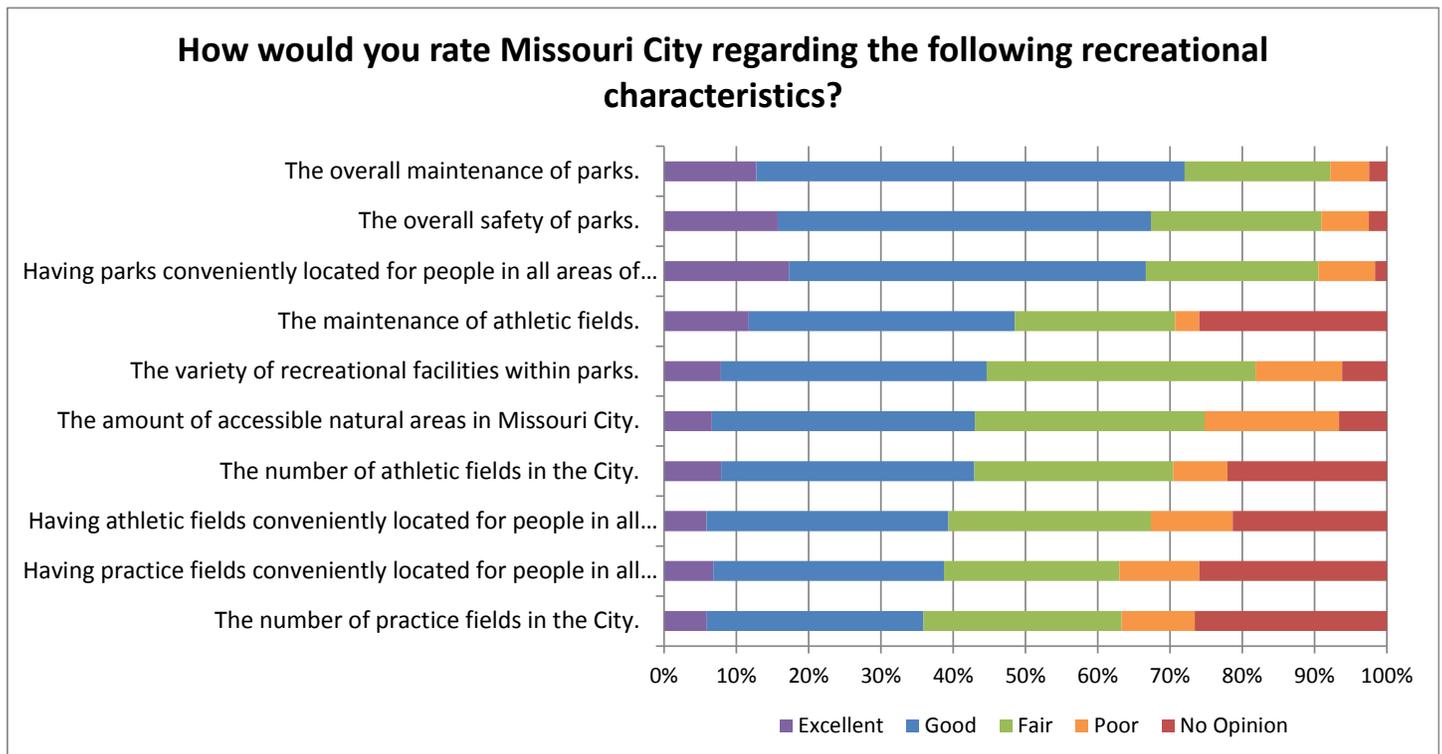
- | | |
|---|-----|
| 1. Walking/jogging/running/hiking on trails | 45% |
| 2. Visiting parks | 18% |
| 3. Exercise/gym/fitness | 11% |
| 4. Biking/cycling/bicycling | 11% |
| 5. Tennis | 7% |



Based on whatever impressions you have, how would you rate Missouri City regarding the following recreational characteristics?

More than two-thirds of all survey respondents felt that the overall maintenance of parks, the overall safety of parks, and having parks conveniently located in all areas of the City were either excellent or good in Missouri City. This demonstrates the high level of satisfaction for the maintenance and safety of parks in the City.

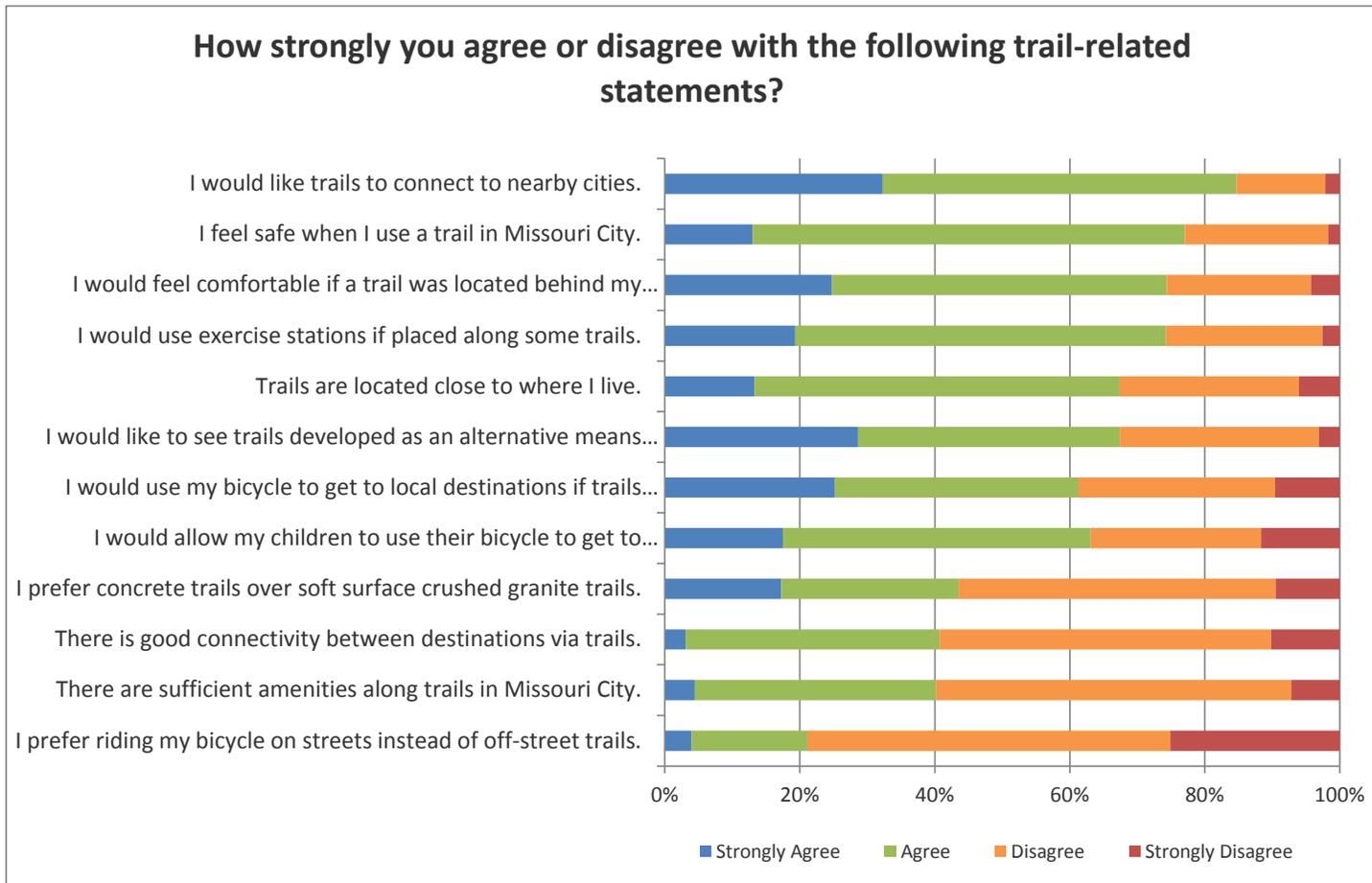
Only 39% of respondents felt that the location of athletic fields and practice fields was either excellent or good; and few respondents (36%) felt that the number of practice fields was either excellent or good. This shows a need for more practice fields, and more athletic and practice fields that are conveniently located to residents throughout the City.



How strongly do you agree or disagree with the following trail related statements?

The number one trail related issue among the survey respondents was having trails connect to nearby cities such as Sugar Land or Stafford. As shown previously, the number one recreational activity that people participate in outside of Missouri City was walking and jogging on trails.

77% strongly agreed or agreed that they feel safe when they are on a trail in Missouri City. Nearly three-fourths of survey respondents (74%) agreed that they would feel comfortable if a hike and bike trail was located behind their home. 74% also agreed that they would use exercise stations if placed along some trails in Missouri City. The results are shown in the graph below.



What locations or destinations would you like trails to connect to?

Residents were given a list of different locations and destinations throughout the City, and were asked to select which of the destinations they would want trails to connect to. The reasoning would be if trails were connected to these destinations then residents could walk or ride their bicycle to get to them, instead of having to drive their car. The top destinations are listed below.

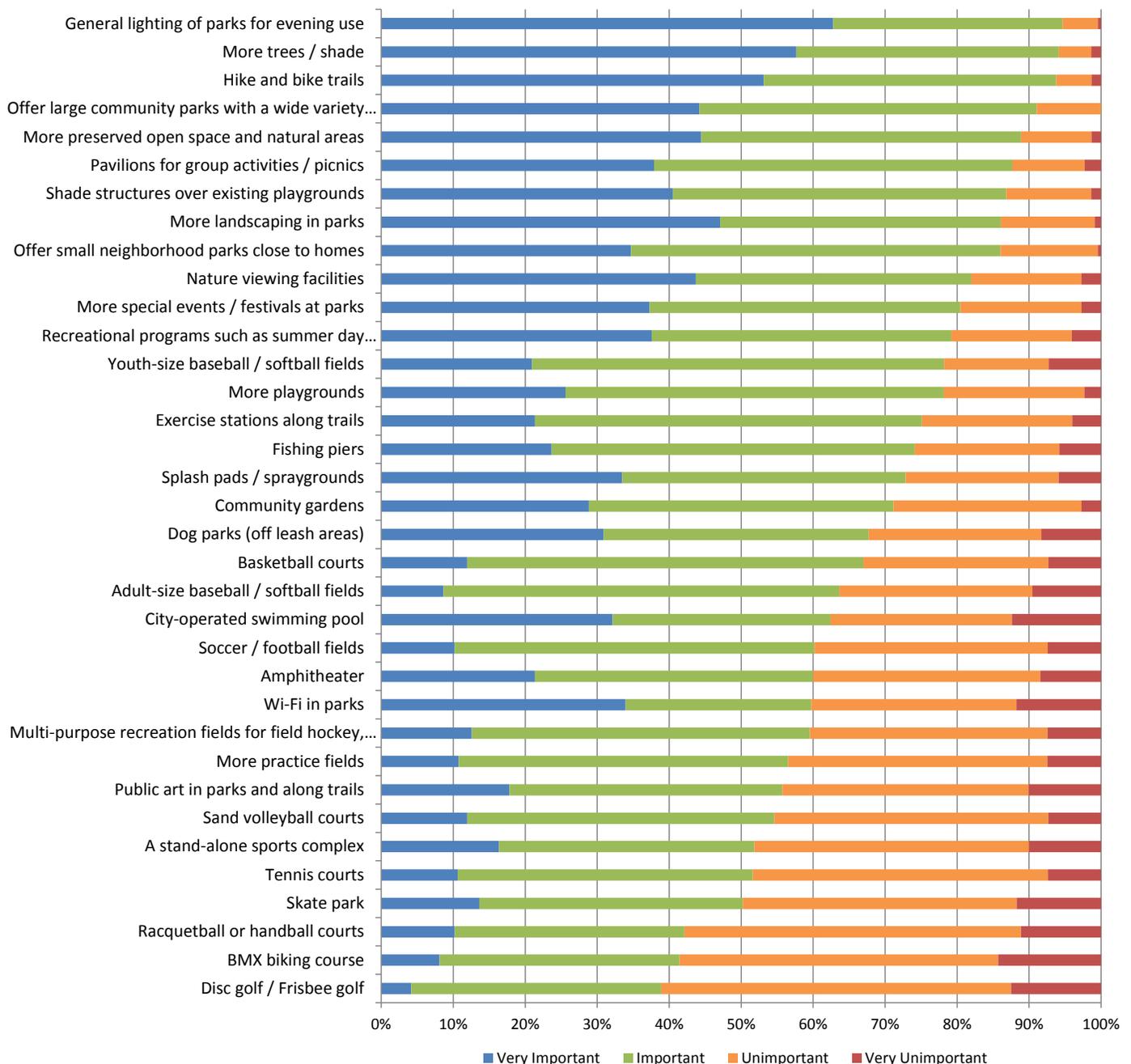
1. Neighborhood parks 77%
2. Along the creeks 75%
3. Shopping areas 43%
4. Community Park 42%
5. Kitty Hollow County Park 42%



How important or unimportant is it to provide or add the following recreational facilities to parks in Missouri City?

Residents who participated in the online survey were given a significant list of different recreational facilities and amenities. They were asked to rate each one in terms of how important or unimportant they feel it is to provide or add them to parks in Missouri City. The facility receiving the highest level of importance was adding general lighting to parks for evening use (95%). This was followed by more trees and shade, and more hike and bike trails (both receiving 94% importance rating). The fourth most important item was offering large community parks with a wide variety of amenities (91%), and the fifth most important item was providing more preserved open space and natural areas (89%). The top responses are shown in the graph below.

How important or unimportant it is for the following items to be provided or added in Missouri City's parks?



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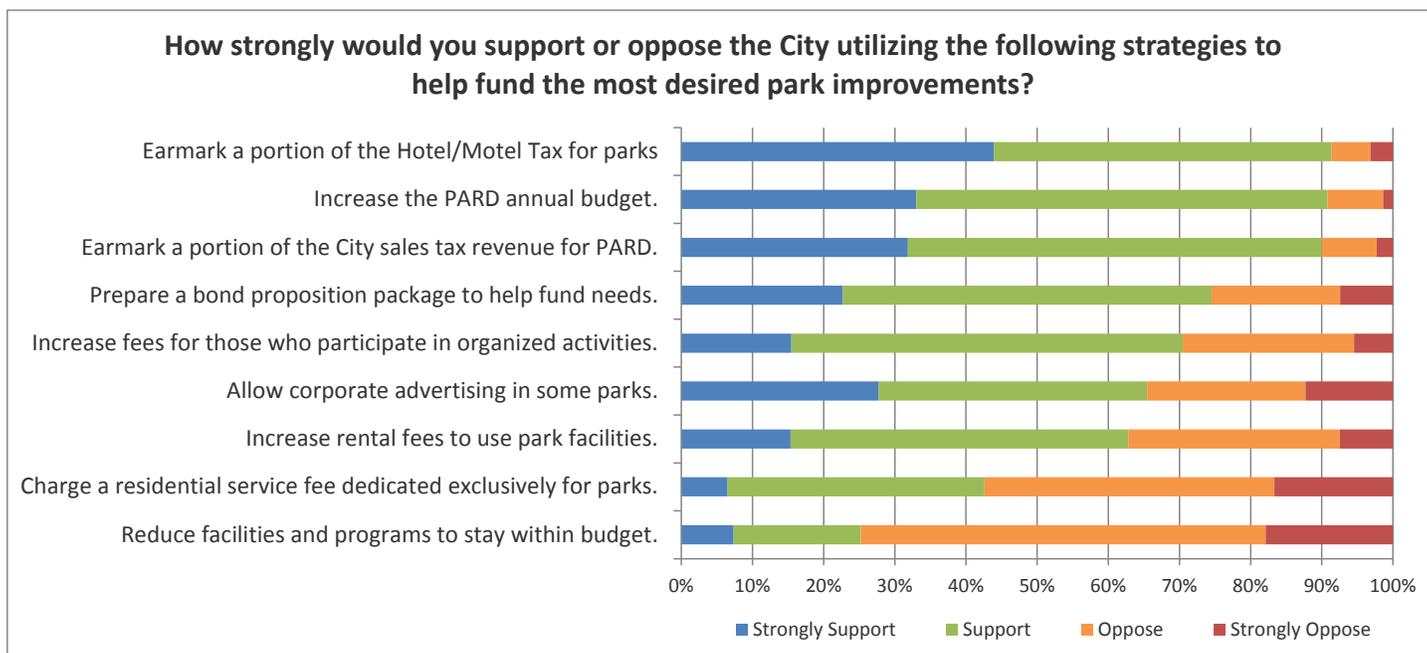
What are the three facilities that you and your family feel are most needed in Missouri City?

Respondents were then given the list of facilities again, and asked to select the top three that they feel are most needed in Missouri City. The results varied slightly from what respondents felt were important to provide. The top most needed facilities are listed below.

1. Hike and bike trails (35%)
2. Dog parks (off leash areas) (22%)
3. More preserved open space and natural areas (21%)
4. Offer large community parks with a wide variety of amenities (19%)
5. More special events/festivals at parks (17%)
6. Amphitheater (17%)
7. Offer small neighborhood parks close to homes (17%)
8. City-operated swimming pool (16%)
9. Splash pads/spraygrounds (12%)
10. Fishing piers (11%)

How strongly would you support or oppose the following strategies to help fund the most desired park improvements?

Survey respondents were given different types of funding options that could help implement the construction of the most desired park improvements. They were asked to rate how strongly they would support or oppose the City utilizing each of the strategies. The most supported options were earmarking a portion of the Hotel/Motel Tax for parks and recreation, and increasing the Parks and Recreation Department annual budget (both receiving 91% support). The results are shown in the graph below.



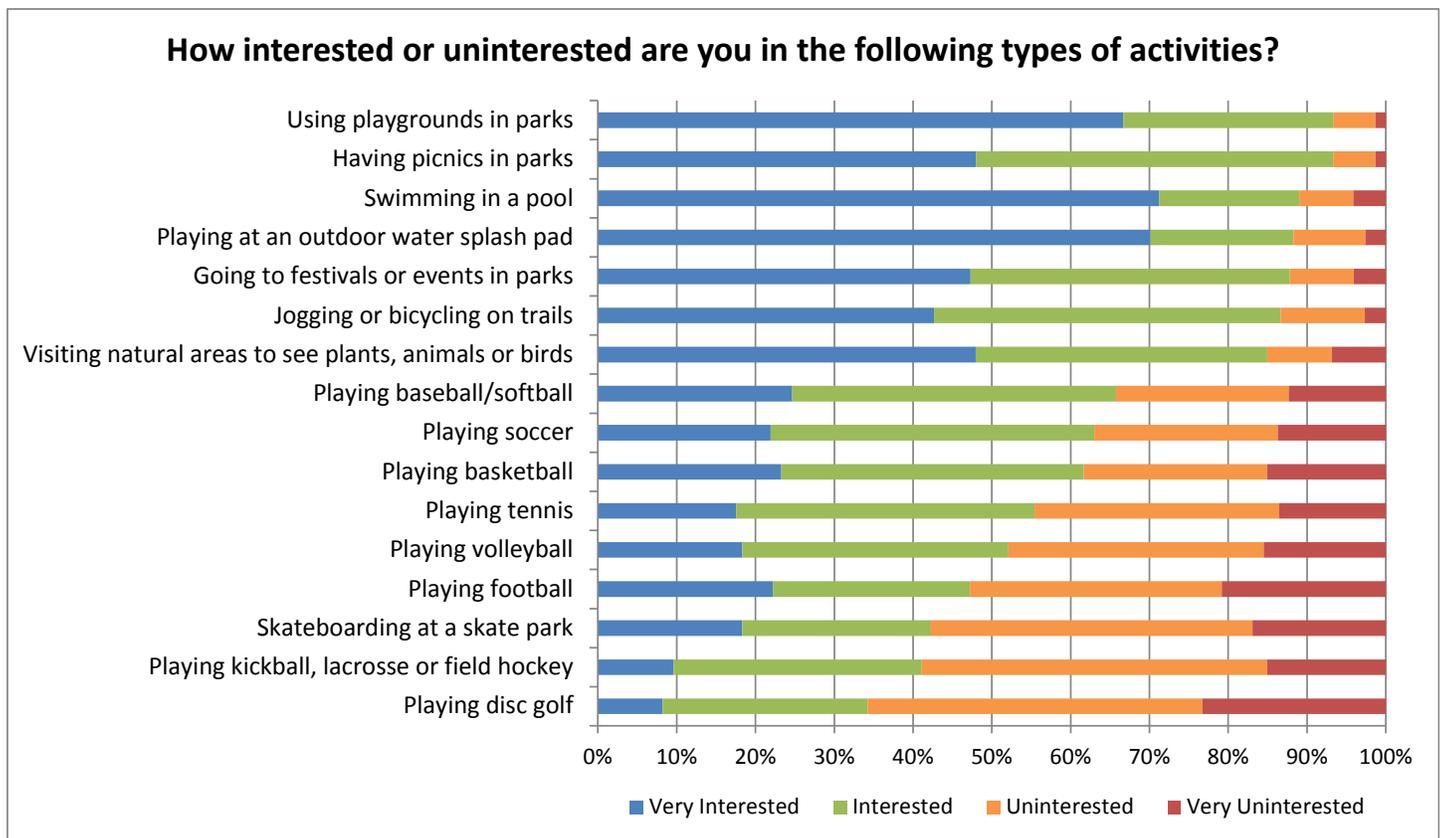


Kids Survey

There were three questions that were specifically directed towards the youth of Missouri City as part of the online survey. A total of 77 children answered the kids survey.

How interested or uninterested are you in the following types of activities?

The most popular activities for children were using playgrounds in the parks and having picnics in the parks, both receiving 93% interest. Aquatic activities were also popular among the youth - swimming at a pool had 89% that were either interested or very interested, and playing at an outdoor water splash pad had 88% that were either interested or very interested. The results are shown below.



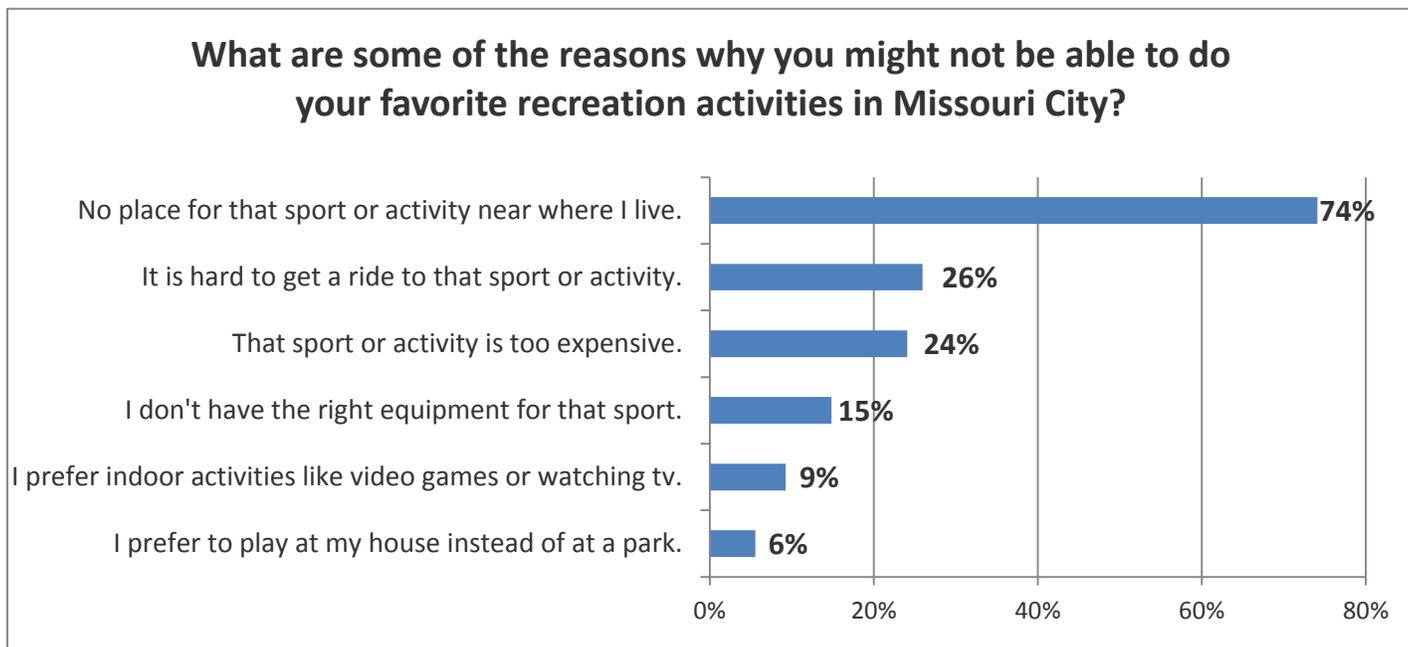
What is your favorite recreational activity?

When asked more specifically what their favorite recreational activity was, again the most popular activities were aquatics - both swimming and playing at splash pads. The top results are listed below:

1. Swimming in a pool 29%
2. Playing at an outdoor water splash pad 20%
3. Using playgrounds in parks 9%
4. Going to festivals or events in parks 8%
5. Jogging or bicycling on trails 7%
5. Playing volleyball 7%

What are some of the reasons why you might not be able to participate in your favorite recreation activities in Missouri City?

The last question on the kids survey asked them what are some of the reasons why they cannot participate in their favorite recreation activities. They were given a list of possible reasons, and asked to select each one that applied to them. They were also give the opportunity to provide additional reasons. The number one reason the youth selected was that there is no place for that sport or activity near where they live. The results are shown below.



Other reasons that the youth listed as why they cannot participate in their favorite recreational activities in Missouri City include the following:

- Too few facilities
- We don't have enough fields
- Typically unsafe to be without an adult
- Parents work so weekends are the only option
- Leagues are often scheduled to play on Saturdays. Not a day that we are able to attend. Wish some things were offered on Sundays.
- No community facility



Stakeholder Interviews

Stakeholder interviews were held over a two day charrette. A total of 12 groups were interviewed. A summary of their key needs and concerns related to parks and recreation in Missouri City is discussed below.

Table 6 - Summary of Stakeholders' Needs and Concerns

Stakeholder Group	Key Needs and Concerns
Senior Aerobics	Attendance and participation could be improved with better advertising of the program. Also, many seniors assume that the new Recreation and Tennis Center is a private facility. Other general concerns overall: the City lacks connectivity in sidewalks and trails. There is a problem with people walking on the golf cart paths in Quail Valley, and the paths need to be redone.
The ARC of Fort Bend County	There is no aquatic facility available (private or city-owned) where they could offer Special Olympic swimming activities. Also, there is no boundless/barrier-free playgrounds in Missouri City.
Association for Renaissance Martial Arts (ARMA)	Currently use the auditorium at the community center. They would like a secured space for storage of their equipment at that facility. Also, they currently advertise on their local website - they do not receive any advertising of their program from the City. Again, better advertising could help increase participation.
Sugar Land Coastal Conservation Association	Currently use the community center for their annual banquet, but it is too small. They feel the community center should be expanded to accommodate up to 1,000 people. They use the lake at Community Park for annual fishing events. However, the lake has poor fishing and is under-utilized. The lake at Kitty Hollow County Park has better fishing.
American Association of Karate	This group also currently uses the community center for their activity. They would like to see the community expand so that there is more parking available when multiple events are occurring at one time, and upgrade to sound proof dividers in the banquet room for when multiple events are taking place. They feel that the advertising of programs could be improved, and feel that Sugar Land provides better advertising mainly because multiple activities occur at the same time which provides exposure to what is offered.
Missouri City Little League	They use the fields at Community Park, and would like to have a playground and things for younger siblings near the baseball fields. They need to expand fields five and six, expand the fence on the Tee-ball fields, or add more fields. They would like to see Community Park expand onto the adjacent property to the east. They need warm-up cages for batting and pitching.
Fun Fair Positive Soccer	They currently use one soccer field at Community Park for practice and games, but parking at Community Park is insufficient. In the past they used Roane Park, and feel that if there was more parking at Roane Park they would use that park. Ideally they need six irrigated fields with 80+ parking spaces, restrooms/concession building, and shade trees.
Missouri City Garden Club	General comments about the overall citywide parks system: the City needs improved connectivity with trails; would like to see a community pool; would like to see a farmers market; would like a nature center; would like more attractions in the parks such as offering food trucks.

Table 6 - Summary of Stakeholders' Needs and Concerns

Stakeholder Group	Key Needs and Concerns
Missouri City Girls Softball	Currently play at Sta-Mo Park and the park needs to be renovated. The restrooms need updating; the parking lots are not adequately lit; there is no landscaping or beautification in the park; emergency access is not paved; there are several potholes; Field 4 dugout drain clogs frequently; Fields 2 and 3 have wooden light poles that either do not work or are rotting; trash bins need to be replaced; would like permanent picnic tables installed near the softball fields; would like playground and trails to entertain siblings and families during games; need bleacher covers and safety backing on Fields 2 and 3.
Sta-Mo Pony Baseball	Also play at Sta-Mo Park and feel that the park needs to be renovated. The infrastructure is out of date; the fields need to be re-sodded; would like new lighting; lighting outside of fields is not good; need family entertainment such as a playground and trails; would like more landscaping and trees; currently practice on the game fields because there are no other places to practice.
Missouri City Volleyball	Practice at the new Recreation Center. However, the court is not set up to allow for two separate volleyball courts. Also the bleachers do not fold which makes space a little tight.
Eclipse Soccer	Currently use the eight fields at Community Park because there is no other location for the league. Six of the fields are unlit; there are no restrooms at the south fields; only half the fields are irrigated; two fields need to be re-graded; there are no concessions near the soccer fields; seasonal events can cause parking problems; more frequent patrol by the police would be appreciated; they frequently have to kick non-club players off the fields to practice or play games - it would be nice if the City had a place for people to play if they were not in a club.

Key concerns - Some of the common themes and key concerns that were discussed with the stakeholder groups included:

- Programs offered at the Community Center need to be better advertised
- The Community Center should be renovated and expanded so that it continues offering programs, and programs have the opportunity to expand
- Renovations need to be made to Sta-Mo Park
- Community Park needs to be expanded and some renovation are needed
- The City needs better connectivity with trails and sidewalks

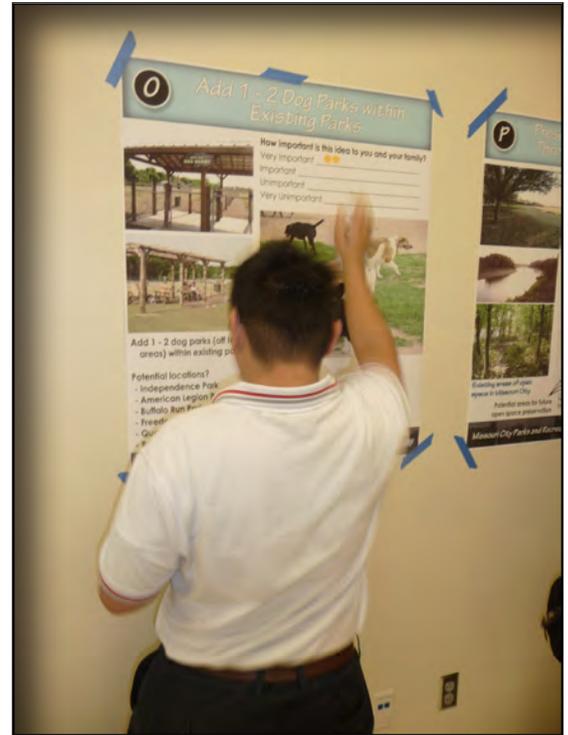


Citywide Open House/Public Meeting

AS part of the planning process, a citywide open house/public meeting was conducted to present the proposed recommendations of the master plan. The meeting was attended by 15 +/- residents and program facilitators. Of the recommendations that were presented, attendees were most supportive of:

- Developing new trails
- Renovating Sta-Mo Park
- Preserving more open space
- Renovating the amphitheater at Community Park
- Overall beautification and improvements to existing parks

Of the different types of special amenities that could be offered in parks, attendees were most interested in adding a challenge course, a lighted fishing pier, rock climbing, public art in the parks, and a community garden. Meeting attendees also felt that the Community Center building should either be renovated to continue the current programming, or expanded to offer more programming.



General comments that were received from the meeting attendees include the following:

- People want more access to a park close to them. We don't want to have to drive to a park - make them walkable and bikable. We also need more pedestrian bridges to get around the City, and more trails and sidewalks that connect.
- People want to do more than just play sports when they visit a park. We want to experience nature. The parks need to be more attractive.
- What is offered for seniors? What about arts and cultural opportunities? The City needs to better advertise and promote what is available to the residents.
- We need to change the perception of safety by having more police in the parks.
- There is this perception that people don't want to pay more because we pay too much already. We want to see something done with the previous bond money. It is so much more cost effective to maintain the parks than it is to eventually renovate them completely after they have deteriorated. We need to make significant changes to make our residents stay here. We cannot just upgrade one park here and another there. We have to do a lot, and we need to ask citizens "this is what it will cost so are you willing to step up?"

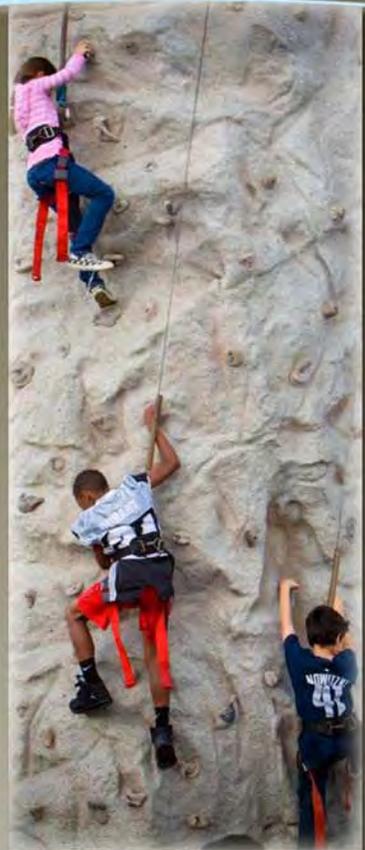


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Park Standards and Existing Inventory



Purpose of the Existing Park Inventory

The Missouri City Parks and Recreation Department is currently responsible for the operation and maintenance of 34 park sites, totaling 733.11 acres.

Understanding the types of parks and their distribution helps to determine whether or not the public is being well served with recreation opportunities. The number, type, distribution and condition of parks also define the effort and cost required for maintenance and operations.

Having an up-to-date inventory is a key part of the park planning process. It helps to understand which parks and recreation facilities are currently available, to assess the condition of those facilities, and to understand what facilities are lacking within different areas of the City. The need for new or improved recreational facilities can be determined by comparing the available park facilities with the characteristics of the residents the park system serves.

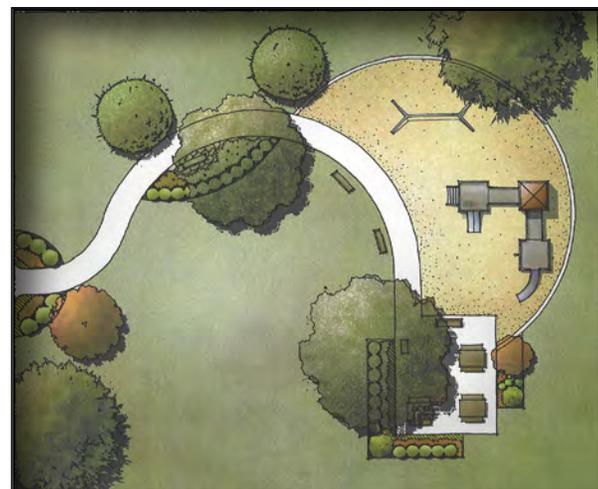
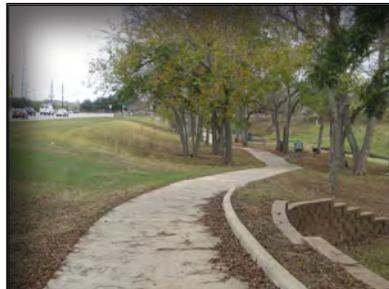
Missouri City has an established network of small mini parks, neighborhood parks, larger community parks, and Home Owners Association (HOA) owned parks. This section defines the park categories, maintenance levels, and existing facilities of each park type. The park standards defined in this section build upon the standards established in the 2007 Parks Master Plan.

Park Types and Standards in Missouri City Today

The primary focus of this master plan is on the City of Missouri City owned and operated parks. HOA parks are considered where they may influence park needs in Missouri City.

Mini Parks

Mini parks in Missouri City are any park less than five acres in size. Mini parks are accessed by walking or bicycling to them. Vehicle access and parking is not typically needed because of their small size. Amenities in mini parks can include benches, landscaping, playgrounds, and other focal features. These parks are generally found in a residential or urban area. They are meant to serve as pockets of open space in the midst of mainly developed areas. Mini parks should be accessible within a quarter-mile radius of residents.



Examples of mini parks in Missouri City
Left - Lexington Village Park; right - Mosley Park

Typical mini park layout



Neighborhood Parks

Because neighborhood parks are within easy walking or bicycling distance, they form the foundation for recreation in most cities like Missouri City. Neighborhood parks provide amenities for an entire family, and typically serve one large or several small neighborhoods. Because of the physical topography, neighborhood parks can vary in size. Ideally, neighborhood parks in Missouri City should range from five acres to 25 acres.

Accessibility - Neighborhood parks should be accessible within a half-mile radius of residents. Neighborhood parks should be accessible without having to cross major arterial streets, and should provide easy access for the users that surround it. One cost effective alternative is to locate future neighborhood parks adjacent to elementary schools because the City and the school district can share acquisition and development costs which results in more efficient use of tax dollars.

Location - An ideal location for neighborhood parks is to be in the center of the neighborhoods it is meant to serve. Also, having local or minor collector streets on at least two sides of the park allows for easy pedestrian and bicycle accessibility.

Parking - Parking varies based on the size of the park, the availability of safe on-street parking, the facilities that are offered, and the number of users the park will attract. Where feasible, the use of trails to access the park should be encouraged to decrease the dependency on automobiles. Depending on the carrying capacity of adjacent streets, parallel on-street parking may provide sufficient parking space. Opportunities for shared parking may be possible with surrounding compatible facilities, such as being located adjacent to libraries, schools, or city buildings.

Facilities - Restrooms are typically not placed in neighborhood parks because they increase maintenance, and these parks are ideally within walking distance of a person's home. In larger neighborhood parks, one restroom facility may be appropriate. Typical neighborhood park facilities can include:

- Playground equipment for ages 2-5 and ages 6-12, with adequate safety surfacing around the playground and shade structures over the playground
- Unlighted practice fields for baseball/softball and soccer/football
- Unlighted multi-purpose courts for basketball, volleyball or tennis
- Open space areas for unorganized play
- Picnic areas with benches, picnic tables, cooking grills, and shade structures
- Pavilions or gazebos
- Jogging/exercise trails connecting to nearby neighborhoods (if no sidewalk is provided along the street)
- Drinking fountains
- Parking, if space is available
- Restrooms if appropriate

Design - The overall design and layout of a neighborhood park is important to its final quality and timelessness. These parks should generally be designed with the programmed space - playgrounds, pavilions, basketball courts, etc. - clustered into an "active zone" within the park.



Examples of neighborhood parks in Missouri City

Top - Roane Park;

Middle - Ridgeview Park;

Bottom - Hunters Glen Park

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These areas need ample seating and shade to be hospitable year round. Constructing these areas near existing stands of trees is strongly recommended when possible, as this eliminates the years of waiting for shade trees to mature. The open/unprogrammed space should be visible from this activity area, but should be clearly delineated through plantings and hardscape features such as paved trails. Finally, a looped trail is considered a preferred component of a neighborhood park.

How the park integrates with the surrounding land uses - residences, schools, wooded areas, etc. - is crucial to the quality of experience within the park. When a road borders the park, it should be ensured that the houses across the street face the park. When houses back up to a park, ensure that fencing between the house and the park is transparent wrought iron fencing (or similar) rather than wooden, tall, privacy fencing. Transparent fencing allows a softer transition between park and residence, and provides for informal surveillance of the park. In the future, preferably no more than 25% of any park's boundary should be bordered by the backs of houses, otherwise it would create a sense of uncomfortable enclosure within the park. When a park is constructed adjacent to a school, ensure that the two sites interact: work with Fort Bend ISD to have paved connections between the school and the park.

Lastly, it is important to design neighborhood parks that are unique in character, respond to the surrounding environment, and provide unique experiences for the park's users.



Typical neighborhood park layout



Community Parks

These parks are larger and are meant to serve a group of neighborhoods or a portion of the City. Community parks are usually reached by automobiles on collector streets, as well as by pedestrians and bicyclists who live nearby. Community parks are more than 25 acres in size, and have a two-mile service radius. The typical community park should be large enough so it can provide a variety of facilities while still leaving open space for unstructured recreation and natural areas. The park should also have room for expansion so that new facilities can be added to continue to attract users.

Type - There are essentially two types of community parks: active and passive. Each type has a different set of facilities provided and an overall different character. Active community parks typically focus on high-intensity recreation such as lighted competitive game fields, recreation centers, and manicured vegetation. Passive community parks, on the other hand, typically have low-intensity uses such as hiking, picnicking, and free play. Passive community parks generally have a large amount of natural and unprogrammed space in the park. When a community park is large enough, it can sometimes be both types by having areas that are active and areas that are passive within the same park.

Location - Because of the potential for noise and bright lights at night, community parks should be buffered from adjacent residential areas. Since community parks are usually reached by automobiles, it is best to locate them near a major thoroughfare which provides easy access from different parts of the City.

Parking - Parking varies based on the facilities provided and the size of the park. Additional parking is needed to accommodate facilities such as athletic fields or recreation centers that can be located in community parks. The National Recreation and Parks Association (NRPA) recommends a minimum of five spaces per acre with additional parking for added facilities. The specific amount of parking provided in each park should be determined by the facilities provided in that park.

Facilities - Typical community park facilities can include:

- Jogging/exercise trail (recommended at least one mile in length), connecting to nearby destinations



Typical community park layout

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PARK STANDARDS AND EXISTING INVENTORY



Examples of community parks in Missouri City. Above - Buffalo Run Park; Below - Community Park



- Covered picnic shelters with tables and grills
- Playground equipment for ages 2-5 and ages 6-12, with adequate safety surfacing around the playground and shade structures over the playground
- Open space areas for unorganized play
- Lighted athletic fields (suitable for organized competitive events)
- Restrooms
- Sufficient off-street parking based on facilities provided and the size of the park
- Security lighting
- Splash pads/spraygrounds
- Covered basketball court
- Other facilities as needed which can take advantage of the unique characteristics of the site such as nature trails, fishing ponds, swimming pool, dog parks, skate parks, amphitheaters, recreation centers, sand volleyball courts, or tennis courts.

Design - As with neighborhood parks, the overall design and layout of a community park is important to the park's final quality and timelessness. Similarly, activity zones of programmed space are also important within community parks. Playgrounds, pavilions and basketball courts make up one type of active zone, while ball fields, concession stands and storage buildings make up another type. Again, providing shade by means of constructing the former of these two activity zone types near existing stands of trees is strongly recommended, as is the provision of benches and picnic tables. In community parks and other large parks, it is often desirable to delineate between activity zones and unprogrammed areas by the use of natural features such as stands of trees or landscaping where available. This helps to break up the park visually and delineate space. Paved trails should connect these various areas with each other, as well as provide a walking/jogging loop for recreational use.

The interaction between a community park and surrounding areas is crucial to the quality of experience within the park. Because community parks are often located outside of neighborhoods, there are different considerations than there are with a neighborhood park. As with neighborhood parks, it is important that the park be bordered by neighborhood roads and, if feasible, creeks or other natural areas. When development does border the park, how the edge is addressed depends on the type of development. If the development is residential, ensure that the fencing between the houses and the park is transparent. However, if the development is industrial in nature or otherwise aesthetically unpleasing or potentially a nuisance, the border should be fenced and heavily planted with trees and shrubs to soften the edge.

As a final consideration, it is important to understand that active community parks themselves can sometimes be a nuisance if near residential neighborhoods. Bright lighting at night, excessive noise from cheering spectators, or the overflow of parking onto neighborhood streets can all become major issues. If an active community park is to be developed in close proximity to a neighborhood, it should be designed with an adequate landscape buffer to provide visual screening and sound reduction, and design parking areas away from housing.

Regional Parks

Regional parks are intended to serve the entire city and very often become the premier park in that area. It is land that is dedicated as parkland due to its regional importance or relevance. This may be due to its natural characteristics including habitat, geological formations, and/or aesthetic beauty. Other reasons may be the role that the particular site plays in issues of regional importance: e.g. historical memorial, habitat protection, or ecological service including water conservation and flood protection. The size of a regional park is typically more than 150 acres. Regional parks are often under the ownership and control of county or state government, but in some cases can be owned and operated by a city.

Regional parks should be located near highways or major arterials to provide easy access from different parts of the city. Because of the potential for traffic, noise and bright lights, regional parks should be buffered from adjacent residential areas.

Special Use Parks

These types of parks are designed to accommodate specialized recreational activities. Because the facility needs for each activity are different, each special use park usually provides one or only a few activities. Examples of special use parks include:

- Athletic complexes
- Swimming pool/aquatic centers
- Tennis complexes
- Skate parks
- Dog parks
- Golf courses
- Open space preserves or natural area parks
- Linear parks
- Downtown plazas

Athletic complexes and golf courses are the most common type of special use parks. Athletic complexes seek to provide fields for organized play in a location that can accommodate the traffic and noise that a large number of users can generate. Athletic complexes should include sufficient fields so that leagues can congregate at one facility and not have to spread out in different locations across the City. Evening activities at athletic complexes necessitate high-intensive lighting that can become a nuisance when the complex is located too close to residential areas. To address this, wide buffers should be placed around such complexes and/or they should be located adjacent to commercial or industrial areas.

Nature parks and preserves are a critical part of the land use system in any metropolitan area. They provide wildlife habitat, flood control, and places for passive recreation. These parks can greatly vary in size depending on the resources available, but are meant to have a citywide service radius.

The benefit and inclusion of places that are natural areas or unprogrammed open space has been largely overlooked in the context of typical park master plans. Conservation and preservation are especially valuable as, over time, natural resources disappear in our cities and natural



Independence Park is Missouri City's only city-owned regional park



The StaMo Sports Complex is an example of a special use park in Missouri City

habitat is wiped out. The value of walking through historic and natural places that have been left untouched is immeasurable. Such opportunities are rapidly becoming rare, and the identification and protection of such areas is urgently needed in most cities today. Cities that marshal the will and act quickly to conserve natural resources demonstrate the foresight and resolve necessary to ensure that future generations may enjoy something of beauty and timelessness.

Natural areas and open space are part of a city's resources and are its natural gems. The value of such land may have visual, historic, and cultural appeal that imprints upon the visitor, creating a sense of place and lasting memories. Wilderness, creeks, ponds, prairies and particular geologic formations or topographic change may all be considered elements worthy of protection, public access, and celebration. As unprogrammed space, there is the added benefit of these areas as self-maintaining. There may be the occasional need to check for hazards, but maintenance is generally not a significant factor. Other than recreational and aesthetic opportunities afforded by natural areas, they also have huge economic value to society in terms of ecological services provided such as water and air purification, carbon sequestration, flood control, pollination, air cooling, and positively effecting human health and well being.

Linear parks are open park areas that generally follow some natural or man-made feature that is linear in nature such as creeks, abandoned railroad right-of-ways, power line corridors, drainage corridors, or utility easements. In Missouri City, most of the potential linear parks could be along Oyster Creek, the Brazos River, Mustang Bayou, or drainage channels. Properly developed to facilitate pedestrian and bicycle travel, linear parks can serve to link or connect other parks in the local system, as well as schools, neighborhoods, civic buildings, and other major destinations. They should also serve to help preserve open space. No specific standards apply to linear parks other than the park should be large enough to adequately accommodate the resources they contain.

Hike and bike trails, often found in linear parks, serve to provide active and passive recreation as well as connections between parks and other destinations within the City. A trails system should be established to serve both recreation needs and as a means of alternative transportation throughout the City. Such a system should provide each resident with quick and easy access to parks, retail, and employment areas.

An additional type of special use park is a "**special interest**" park which typically is developed as a skate park, dog park, or some other park designed to accommodate a special recreational need. Many cities only accommodate one park of each special interest type (e.g. only one skate park per city). Although in the future, demand from residents might be able to sustain two or more of each type of special interest park. Another popular alternative is incorporating special interest park areas into larger community or regional parks.



Size of the Parks System in Missouri City Today

The size of the parks system in Missouri City consists of a total of 38 city-owned parks that equal approximately 1064 acres. This includes the City owned City Centre and La Quinta and El Dorado golf courses that total 314.9 acres. The table on the following page summarizes the existing parks.

In addition to city-owned parks, there are 61 HOA parks, one private sports complex, and one county park (Kitty Hollow Park) within Missouri City's city limits and ETJ. These non-city parks contribute the availability of an additional 723 acres to residents of the area. The elementary schools within Missouri City also have playgrounds and practice fields, which could be accessible to residents during non-school hours.

Type Legend

M - Mini

N - Neighborhood

C - Community

R - Regional

L - Linear

SU - Special Use

Golf - Golf Course

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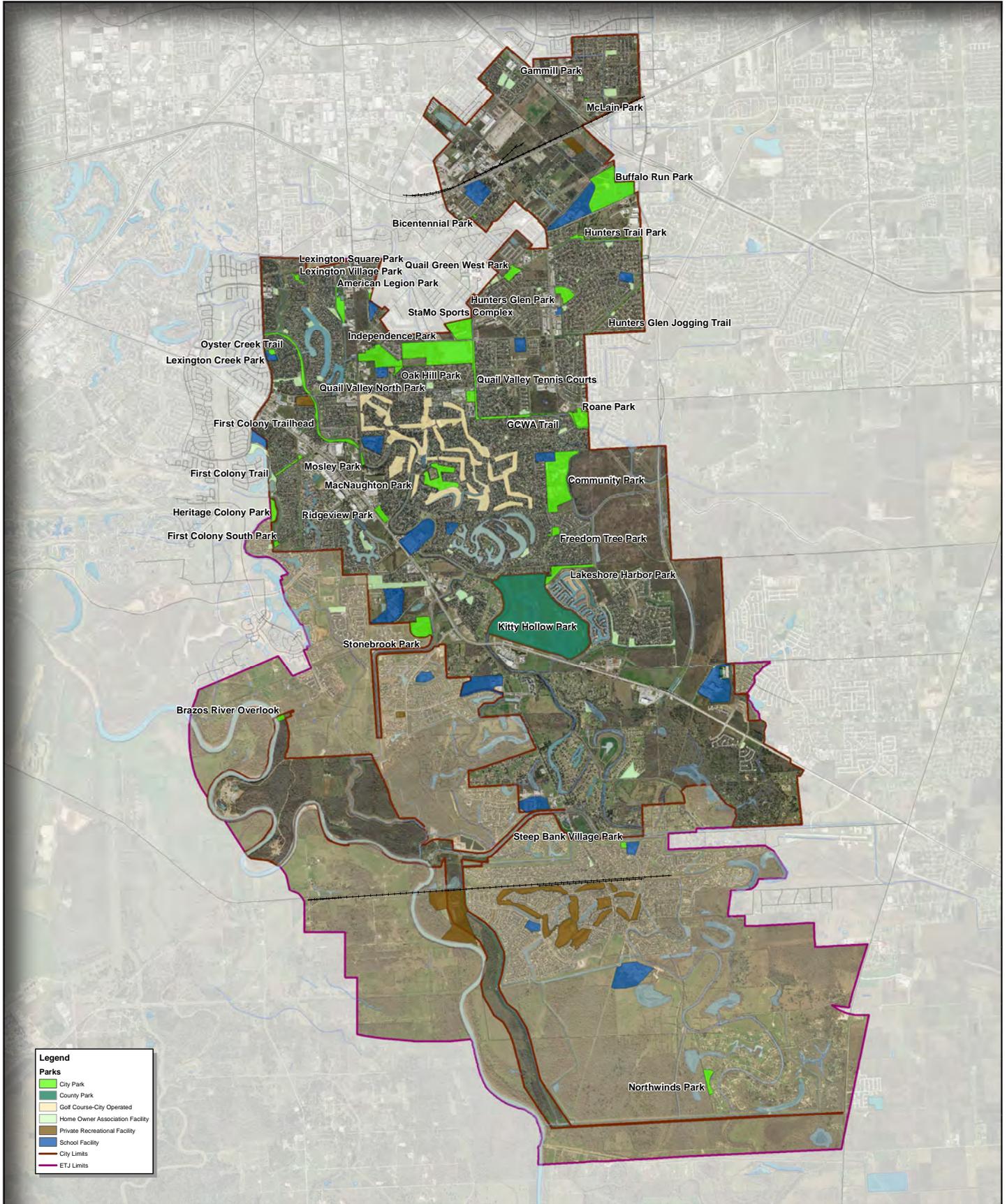
PARK STANDARDS AND EXISTING INVENTORY

Table 6 - Existing Parks (City-Owned)

Type	Park Name	Total Acres	Dev. Acres	Undev. Acres	Address	Park Zone
N	American Legion Park	21.32	21.32		4015 Lexington Blvd	6
M	Bermuda Dunes Property	0.38		3.80		
M	Bicentennial Park	0.91	0.91		2130 Adams St	3
M	Brazos River Overlook	3.80		3.80		11
C	Buffalo Run Park	95.4	74.00	21.28	1122 Buffalo Run Blvd	4
R	City Centre/Golf Course	314.9	314.9		2880 La Quinta Drive	7
C	Community Park	103.34	95.45	7.89	1700 Glenn Lakes	7
N	Crescent Oak Village Sec 7	3.83		3.83		
L	First Colony Trail	4.96	4.96		5330 Cross Lakes Blvd	8
M	First Colony Trailhead 2	3.38		3.38	Riverstone Crossing Dr at Mistyleaf Ln	8
N	Freedom Tree Park	5.73	0.79	4.94	4303 Freedom Tree Dr	10
M	Gammill Park	0.32	0.32		11747 McLain Blvd	1
L	GCWA Trail	11.86	11.86		Independence Park to Valley Forest	7
L	Heritage Colony Park	8.61		8.61	Lake Creek Cir to Gable Wing Ln	8
N	Hunters Glen Park	17.58	17.58		1340 Independence Blvd	4
L	Hunters Glen Trail	54.30	54.30		1500 Blk Tx. Pkwy to 1300 Blk Independence Blvd	4
M	Hunters Trail Park	4.86	4.86		1299 Mimosa	4
R	Independence Park	133.44	50.00	83.44	2621 Court Rd	5
N	Lakeshore Harbor Park	17.68				10
M	Lexington Creek Park	3.04	3.04		2335 Dulles Ave	6
M	Lexington Place	1.31		1.31		
M	Lexington Square Sec 1	1.54		1.54	3600 Blk Independence Blvd	5
M	Lexington Village Park	3.28	3.28		Lexington Green Dr @ Village View Dr	6
C	MacNaughton Park	38.54	38.54		3634 Hampton Dr	7
M	McLain Park	0.70	0.70		12039 McLain Blvd	1
M	Mosley Park	3.08	3.08		3333 FM 1092	7
R	Northeast Oyster Creek Watershed	46.81		46.81	Expansion of Independence Park	5
N	Northwinds Park	4.80		4.80	9500 Blk Thompson Lake Dr	13
M	Oak Hill Park	0.30	0.30		3323 Broken Bough	7
L	Oyster Creek Trail	30.79	30.79		Mosley Park to Dulles Ave	6
N	Quail Green West Park	18.45	11.35	7.10	1802 Freshmeadow	5
M	Quail Valley North Park	3.28	3.28		3330 Northpark	5
SU	Recreation/Tennis Center	8.03	8.03		2701 Cypress Point Dr	7
N	Ridgeview Park	9.71	9.71		3902 Ridgeview Dr	7
C	Riverstone/Stonebrook	31.13		31.13		8
N	Roane Park	17.63	17.63		1440 Turtle Creek	7
SU	StaMo Sports Complex	28.60	28.60		1917 Moore Rd	5
M	Steep Bank Village Park	3.00		3.00	9800 N Bank Way	13
TOTAL		1060.6	809.6	254.34		



Location of Existing Parks



CHAPTER 4

PARK STANDARDS AND EXISTING INVENTORY

Table 7 - Existing Inventory (City-Owned)

Park Name	Total Acres	Passive Recreation									Water Recreation			
		Amphitheater	Benches	Gazebo	BBQ Grills	Drinking Fountains	Pavilions	Picnic Tables	Playgrounds	Trash Bins	Ponds	Lake Fountain	Fishing Pier	Boat Ramp
American Legion Park	21.32		2							4	1	2	2	
Bermuda Dunes Property	3.80													
Bicentennial Park	0.91		3			1		2	1	3				
Brazos River Overlook	3.80													
Buffalo Run Park	95.28		11		3	2	3	16	1	38	4		2	1
City Centre/Golf Courses	314.9													
Community Park	103.34	1	11	1	5	4	4	43	1	75	1	1	2	
Crescent Oak Village Sec 7	3.83													
First Colony Trail	4.96		3			1				4				
First Colony Trailhead 2	3.38													
Freedom Tree Park	5.73		4							1				
Gammill Park	0.32		3			1		1	2	2				
GCWA Trail	11.86									2				
Heritage Colony Park	8.61													
Hunters Glen Park	17.58				1	1	1	4	1	17				
Hunters Glen Trail	54.30									4				
Hunters Trail Park	4.86		2		4	1	1	6	2	5				
Independence Park	133.44									3	3		1	1
Lakeshore Harbor Park	17.68													
Lexington Creek Park	3.04		1			1	1	2	2	1				
Lexington Place	1.31													
Lexington Square Sec 1	1.54													
Lexington Village	3.28		11				1	5	1	4				
MacNaughton Park	38.54		3			1				2				
McLain Park	0.70		1			1				1				
Mosley Park	3.08				2			4		4				
NE Oyster Creek Watershed	46.81													
Northwinds Park	4.80													
Oak Hill Park	0.30		2			1		1	1	1				
Oyster Creek Trail	30.79		2							4				
Quail Green West Park	18.45					1			1	3				
Quail Valley North Park	3.28					1		2	1	1				
Recreation/Tennis Center	8.03		14			3		1		2				
Ridgeview Park	9.71		5		5	3	5	11	1	10				
Riverstone/Stonebrook Sec 1	31.13													
Roane Park	17.63		3			1	2	2	2	5				
StaMo Sports Complex	28.60					1	1	3		43				
Steep Bank Village	3.00													
Total	1063.9	1	81	1	20	25	19	103	17	239	9	3	7	2



Table 7 - Existing Inventory (City-Owned)

Active Recreation														Infrastructure		
Backstop	Baseball Field	Basketball Court	Disc Golf	Dog Park	Horseshoe Pit	Recreation Center/ Community Center	Sand Volleyball	Soccer Field	Softball Field	Splash Pad	Swimming Pool	Tennis Court	Trails (miles) <small>*includes golf paths that are available for morning and evening walking</small>	Parking	Restrooms	Irrigation
													0.6	50		
														12		
					1		1						1.9	133	2	
						1							10.0*			
	6	2	1				1	10	4				0.5	657	3	
													0.4	8		
														40		
														20		
													1.3	20		
		2						2		1			0.6	50	1	X
													3.3	20		
														20		
													1.0	54		
2		3						1					0.2	75		
													0.2	50		X
													1.4	12		
												2		10		
														10		
														6		
													2.4	50		
		1						2						21		
														6		
						1		3				13	0.4	138	3	X
														30	2	X
								2						85	1	
	6								4					612	1	X
2	12	8	1	0	1	2	2	20	8	1	0	15	30.2 miles	2189	13	

CHAPTER 4

PARK STANDARDS AND EXISTING INVENTORY

Table 8 - Summary of HOA Parks

Park Name	Acres	Baseball/Softball	BBQ Grills	Backstop	Basketball Court	Benches	Club House	Dog Park	Fishing Pier	Gazebo	Pavilions	Picnic Tables	Playground	Sand Volleyball	Soccer Field	Swimming Pool	Tennis Court	Trails (linear feet)
5th Street Apartments	0.21												1			1		
Brightwater Estates	2.94					11	1		1		1	2	1			1	4	
Brightwater Estates	5.49					15						2						5,130
Colony Crossing (North)	0.98					3	1					4	1			1	2	
Colony Crossing (South)	0.84					2					1	3	1					
Colony Lakes	2.15					5	1		1			2	1	1		1		
Colony Lakes	4.03		1			2						1			1			
Colony Lakes	0.72																	
Creekmont HOA	1.82					5	1			1		4	1			1		
Estates of Silver Ridge	15.00					2												3,000
Estates of Silver Ridge	8.92																	
Fondern Park HOA	1.05					1	1					6				1		
Fondmeadow HOA	4.95			1		3	1					3	1	1	1	1	2	1,730
Heritage Colony (FCCA)	3.65		1				1				1	4	1	1		1		
Hunters Glen HOA	2.46			1	1	1	1					5	1			1	2	
Hunters Glen HOA	3.96		4		1	3						4	1					
Hunters Glen HOA	1.63					10						4	1			1	2	
Hunters Glen HOA	1.27					4	1				1		1			1	2	
Hunters Green HOA	4.11					2	1					2	1					
Hunters Point Estates	1.09					2							1					
Lake Olympia HOA	1.58					4							1			1	2	
Lake Olympia HOA	3.69					5	1		2	1	1	6	1			1		
Lake Shore Harbor HOA	1.51					2				1			1			1		
Lakeside Meadow	0.34					1												
Lakeside Meadow	1.62					1						1						480
Lakeside Meadow	2.85					4						3	1					
Lexington Colony (FCCA)	3.18					2						4	1	1		1	2	
Lexington Point HOA	2.71					2					1	2	1					
Lexington Square HOA	1.53					2	1						2					
Meadowcreek HOA	3.90					12	1					10	1			2	5	
Olympia Estates	1.24					1							1					
Oyster Creek Place	7.30					4			1									2,170
Oyster Creek Place	3.89					3												
Oyster Creek Village	2.05			1		3							2					1,450
Palmer Plantation (Lake Olympia)	0.56					2												



Table 8 - Summary of HOA Parks (continued)

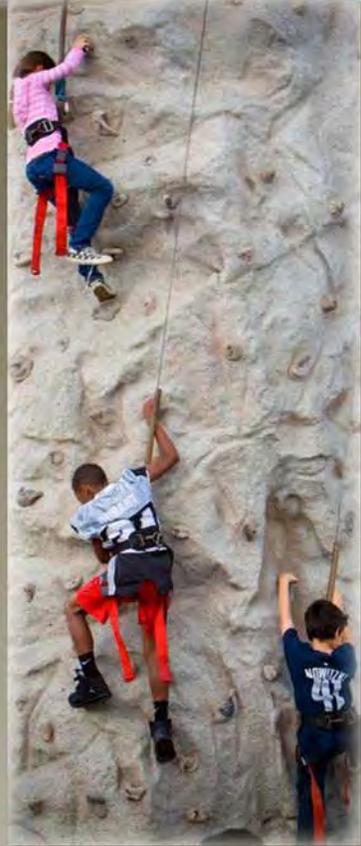
Park Name	Acres	Baseball/Softball	BBQ Grills	Backstop	Basketball Court	Benches	Club House	Dog Park	Fishing Pier	Gazebo	Pavilions	Picnic Tables	Playground	Sand Volleyball	Soccer Field	Swimming Pool	Tennis Court	Trails (linear feet)
Parkside (Riverstone)	1.24					1											2	820
Parkway Trails HOA	0.25					2							1					200
Plantation Settlement	16.78					1				1								2,170
Plantation Trails	0.41					2					1	1						200
Quail Green HOA	1.40		1			3	1					2	1			1	2	
Quail Green South HOA	0.84					3						3						
Quail Green West HOA	1.26					6						3	1			1	2	
Quail Valley Apartments	0.21		1				1			1	1		1			2		
Quail Valley Cottages	0.24											2				1		
Quail Valley East HOA	0.55											3				1		
Quail Valley East HOA	1.05					4	1					5	1			1	2	
Quail Valley Patio Homes HOA	0.88															1		
Quail Valley Townhomes HOA	1.29						1									1		
Quail Valley Townhouses	0.50															1	1	
Quail Valley Townhouses HOA	0.60					1		1				4				1		
Quail Village Townhouses HOA	1.11						1					5				1		
Quail Village Townhouses HOA	0.73						1					3				1		
Sienna Sports Complex	117.6	8			1								1	1	7			13,065
The Crossing (Riverstone)	2.11																	1,120
The Enclave (FCCA)	0.99					2						1	1					
The Woods HOA	1.35						1									1		
Thunderbird North HOA	2.95		1			2						5				1	2	
Village of Cumberland (Vicksburg)	4.26					9				1		1	1				4	3,900
Village of Shiloh (Vicksburg)	3.56					9	1					1	2			1		2,370
Waters Cove (Riverstone)	2.30					3			1		1	1	1			1		1,375
Waters Edge	0.42					2												
Waters Edge	0.29					3												
Total	270.39	8	9	3	3	172	21	1	6	6	9	112	37	5	9	34	38	39,180

CHAPTER 4

PARK STANDARDS AND EXISTING INVENTORY

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Chapter 5 Needs Assessment



Park and Recreation Needs in Missouri City

Residents of Missouri City have clearly established that parks and recreation is important to them, and that they appreciate the recreational opportunities that exist in the City today. They also recognize that the City is growing rapidly, and that new residents arriving in Missouri City will only increase the need for park and recreation facilities and programming. More importantly, the way we recreate is changing, as shown by the recreation trends discussed in Chapter 1. New technology, as well as an increasing amount of activities, are constantly competing for our time and are challenging the way we play and relax. This needs assessment will help recognize both basic and new needs, and will help Missouri City embrace those changes.

At a basic level, the needs assessment compares the current state of Missouri City with the parks and recreation facilities that will be needed in the future. An understanding of the deficiencies that exist in the parks and recreation system is vital so that actions can be developed to address these needs. This assessment also projects potential future needs relative to recreational trends and the changing needs of the City so that an action plan can be developed to address these needs effectively.

A needs assessment is an analytical way of assessing what facilities, actions and programs are most needed and desired by the residents of Missouri City. From the results of the needs assessment, recommendations and actions to address these needs will be created and prioritized. The assessment of these needs is both quantitative and qualitative, as discussed in more detail below.

Assessment Methods

A variety of different inputs and techniques are used in evaluating Missouri City's current and future park and recreation needs. Generally, three methodologies were included in the needs assessment analysis. These techniques follow general methodologies accepted by the Texas Parks and Wildlife Department for local park master plans. These three techniques are:

- **Standard-based Assessment** - This technique uses locally developed level of service ratios of facilities to population so as to project where the City is today and where it might be in the future as the population grows. Typically, standards are measured in "park acres per 1,000 residents" or "park facilities per capita."
- **Demand-based Assessment** - This technique uses actual and/or anticipated usage growth data, as well as citizen input on the types of activities they would like to engage in, to determine which facilities and programs are most in demand.
- **Resource-based Assessment** - This technique recognizes that Missouri City has many unique physical features, and explores how to convert these into recreation or open space assets that help meet the demand for recreation in the City. Examples of potential physical resources in Missouri City might include Oyster Creek and the Brazos River which can provide opportunities for open space, nature trails, and habitat preservation.

All three methods are important in their own regard, but individually do not represent the entire picture. This assessment, and the recommendations resulting from it, uses findings from all three methods to determine what types of recreation facilities and park requirements are needed in Missouri City. Ultimately, these needs are vetted by the citizens of Missouri City, and are determined to best represent the key park and recreational needs of the City.



Standard-Based Assessment (Level of Service)

The national guidelines and standards that were created decades ago were based on demographic trends rather than specific local desires, and are now intended to serve as a starting point for park planning. Each city has its own unique geographic, demographic, and socioeconomic composition, and as such, the arbitrary application of national standards would not necessarily meet the needs of a particular community. Therefore, national standards are no longer used to project facility needs since they are based on a “one size fits all” type of evaluation. Instead, the standards are fine-tuned to meet local conditions.

This master plan utilizes the existing level of service in the City as a starting point and determines whether that level of service is adequate, or whether it needs to be increased or decreased. Extensive public input and the anticipated growth of the City is used to determine how to adjust the current level of service, as well as what parts of Missouri City are well served and what parts are not. Local needs and desires are used to mold these guidelines to meet the expectations of the citizens of Missouri City in a realistic manner.

Three types of level of service determinations are made as described below.

- **Level of Service: Spatial** - Defines the quality context of parkland needs, and is expressed as a ratio of acreage to population. More importantly, it also defines the distribution of parks throughout Missouri City.
- **Level of Service: Access to Parkland** - Geographically determines how easy it is for Missouri City residents to access parkland, and determines where parkland is needed to meet the City’s target level of service.
- **Level of Service: Facility** - Defines the number of facilities recommended to serve each particular recreation need. Facility standards are usually expressed as a ratio of units of one particular facility per population size. For example, a facility standard for a baseball field might be one field for every 10,000 residents of the city.

The Level of Service (LOS) based assessment uses a target level of service established by the local jurisdiction, in this case the City of Missouri City, to determine the quantity of park facilities required to meet the City’s needs. These target levels of service usually are expressed as the quantity of park facilities needed to adequately serve a given ratio of residents. These targets are established to provide the level of service that the particular jurisdiction believes is the most responsive to the amount of use and the interest of its citizens. This plan establishes individual city specific levels of service for Missouri City, and again does not rely on national standards that may not be applicable to Missouri City.

Level of Service - Spatial Analysis: Park Acreage Per 1,000 Residents

The purpose of spatial levels of service for parks and recreational areas is to ensure that sufficient area is allocated for all the outdoor recreation needs of a community. They allow a city to plan ahead so that parkland can be targeted and acquired before it is developed. To help determine an appropriate level of service, a “target” level is incorporated into this master plan. These spatial standards are expressed as a ratio of parkland to the number of residents in Missouri City.

Developing and applying a target level of service for park acreage results in acreage standards for different types of parks. Currently, residents are served by the existing mini parks, neighborhood parks and community parks, as well as one large-scale regional park provided by the County.

Mini Parks in Missouri City

Mini parks are typically small pockets of open space located in a neighborhood or accessible by several smaller neighborhoods. Mini parks are less than five acres in size, and primarily provide play areas for residents. The service radius for a mini park is 1/4 mile.

The City currently has 15 parks that are designated as mini parks, which total 36.6 acres. The current level of service for city-owned mini parks is 0.52 acres per 1,000 residents. The target level of service for mini parks, established by the 2007 Parks Master Plan, is 0.50 acres per 1,000 residents. Furthermore, there are 46 HOA mini parks which total almost 200 acres. These private HOA parks serve the neighborhoods around them, and provide the needed park facilities to those residents so that the City does not have to duplicate those services. Therefore, when these HOA parks are included, there is no deficit of mini parkland within Missouri City.

Neighborhood Parks in Missouri City

A neighborhood park is typically centrally located in a neighborhood or central to the several smaller neighborhoods that it is meant to serve. A neighborhood park in Missouri City ranges from five acres to 25 acres in size. They should be integrated into the community in a prominent manner during the design phase, and not layered in as an afterthought during construction. The service radius for a neighborhood park is 1/2 mile.

Missouri City currently has nine parks that are designated as neighborhood parks, which total 116.73 acres. The current level of service for city-owned neighborhood parks is 1.67 acres per 1,000 residents. The target level of service for neighborhood parks, established by the 2007 Parks Master Plan, is 2.50 acres per 1,000 residents. Therefore, there is a current deficit of 57.71 acres of neighborhood parkland. When including the additional four HOA neighborhood parks in Missouri City, the total neighborhood parkland acreage is 134.53 acres, resulting in a deficit of only 39.91 acres of neighborhood parkland.

Mini Parks

City-owned mini parks only:

- Current acres = 36.6
- Current level of service = 0.52 acres per 1,000 residents

All mini parks (city-owned and HOA)

- Current acres = 235.8 acres
- Current level of service = 3.38 acres per 1,000 residents

Recommended level of service = 0.50 acres per 1,000 residents

Year 2015 Need

- Current need with 70,185 population = 35.09 acres
- Current surplus when including both city-owned and HOA

Year 2020 Need

- Projected need with 79,410 population = 39.71 acres
- Current surplus when including both city-owned and HOA

Year 2030 Need

- Projected need with 91,045 population = 45.52 acres
- Current surplus with including both city-owned and HOA

Neighborhood Parks

City-owned neighborhood parks only:

- Current acres = 116.73
- Current level of service = 1.67 acres per 1,000 residents

All neighborhood parks (city-owned and HOA)

- Current acres = 134.53 acres
- Current level of service = 1.93 acres per 1,000 residents

Recommended level of service = 2.50 acres per 1,000 residents

Year 2015 Need

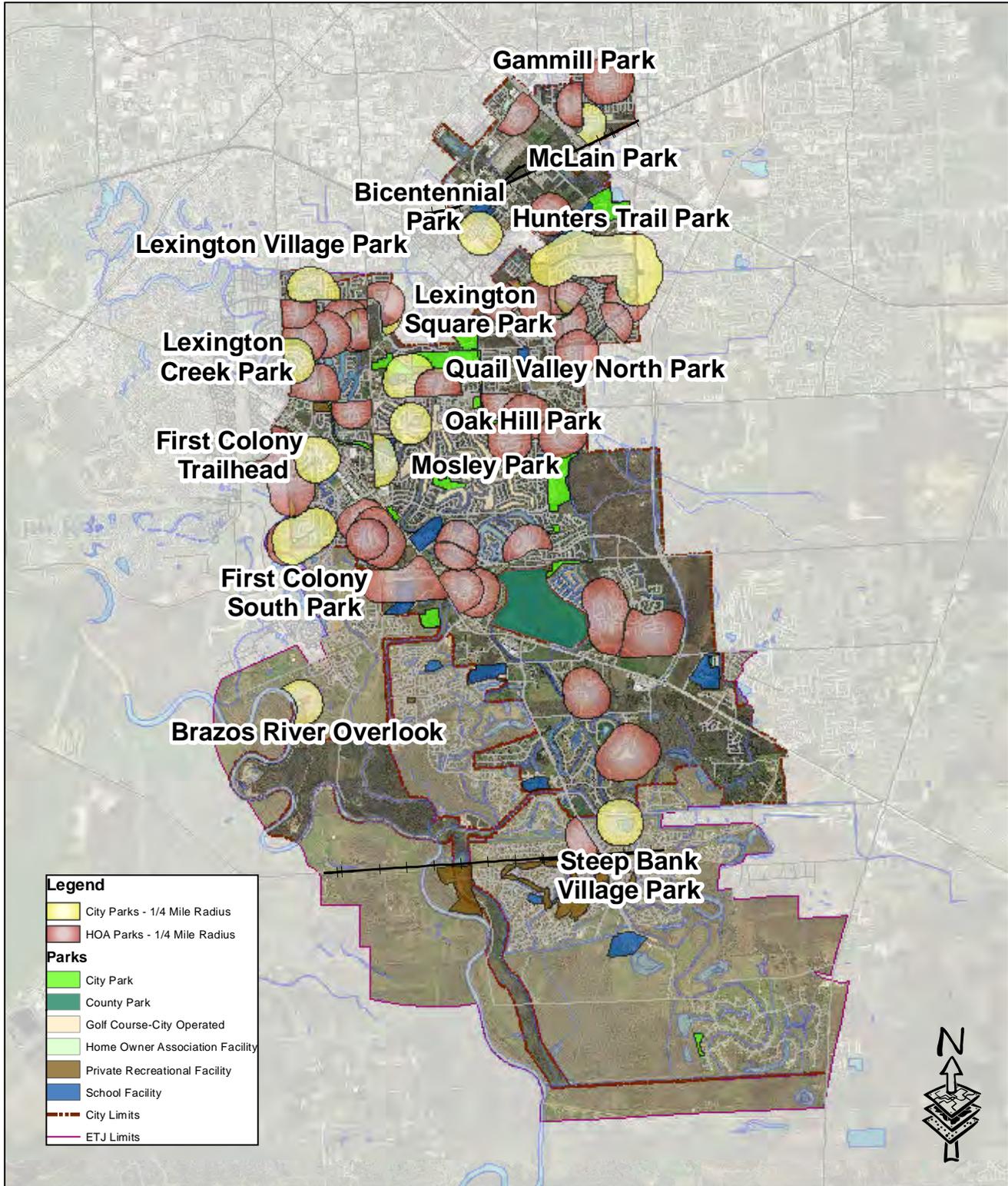
- Current need with 70,185 population = 175.46 acres
- Current deficit of 41 acres

Year 2020 Need

- Projected need with 79,410 population = 198.53 acres
- Deficit of 64 acres

Year 2030 Need

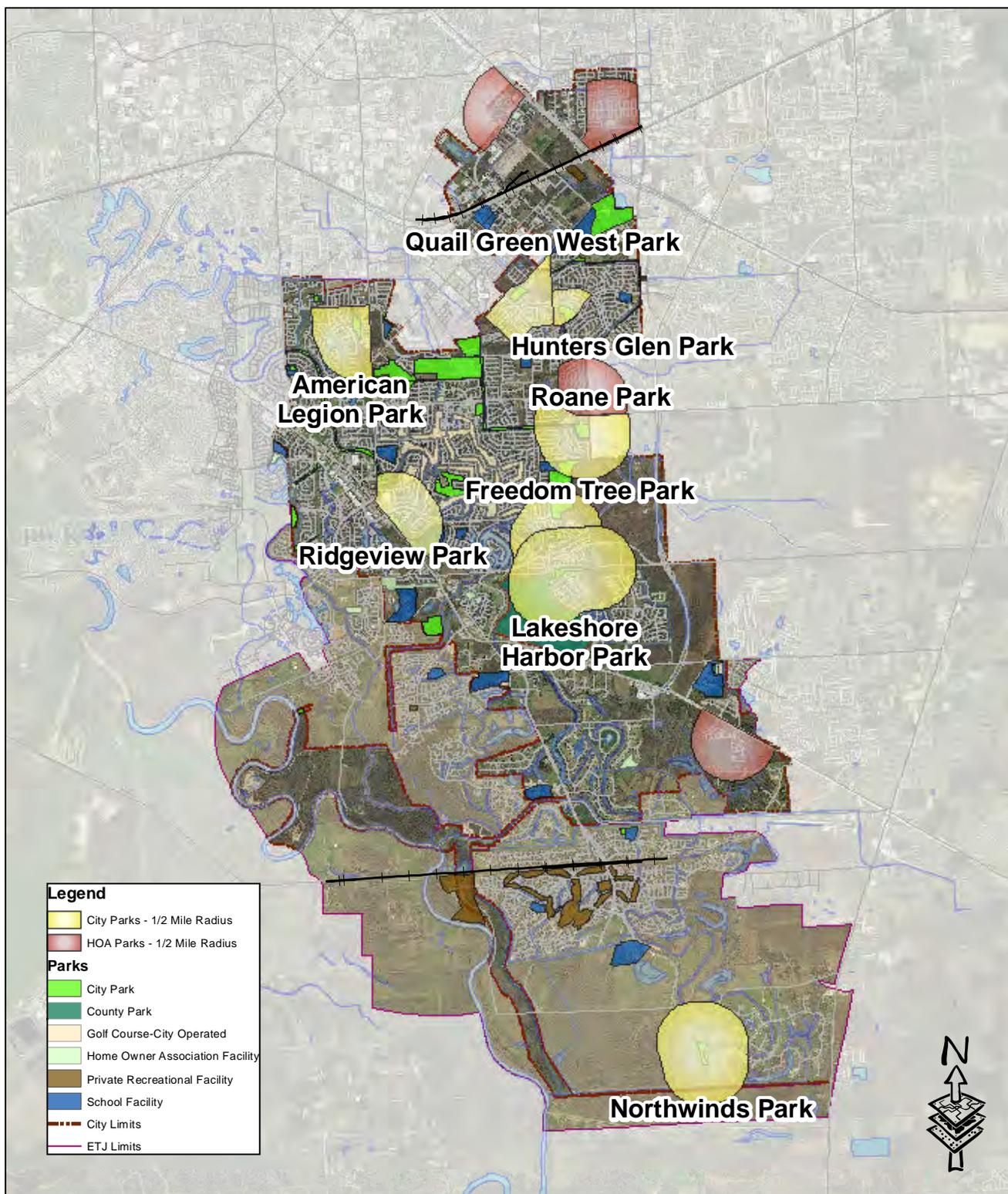
- Projected need with 91,045 population = 227.61 acres
- Deficit of 93 acres



1/4 Mile Mini Parks Service Area

Missouri City Parks and Recreation
Master Plan

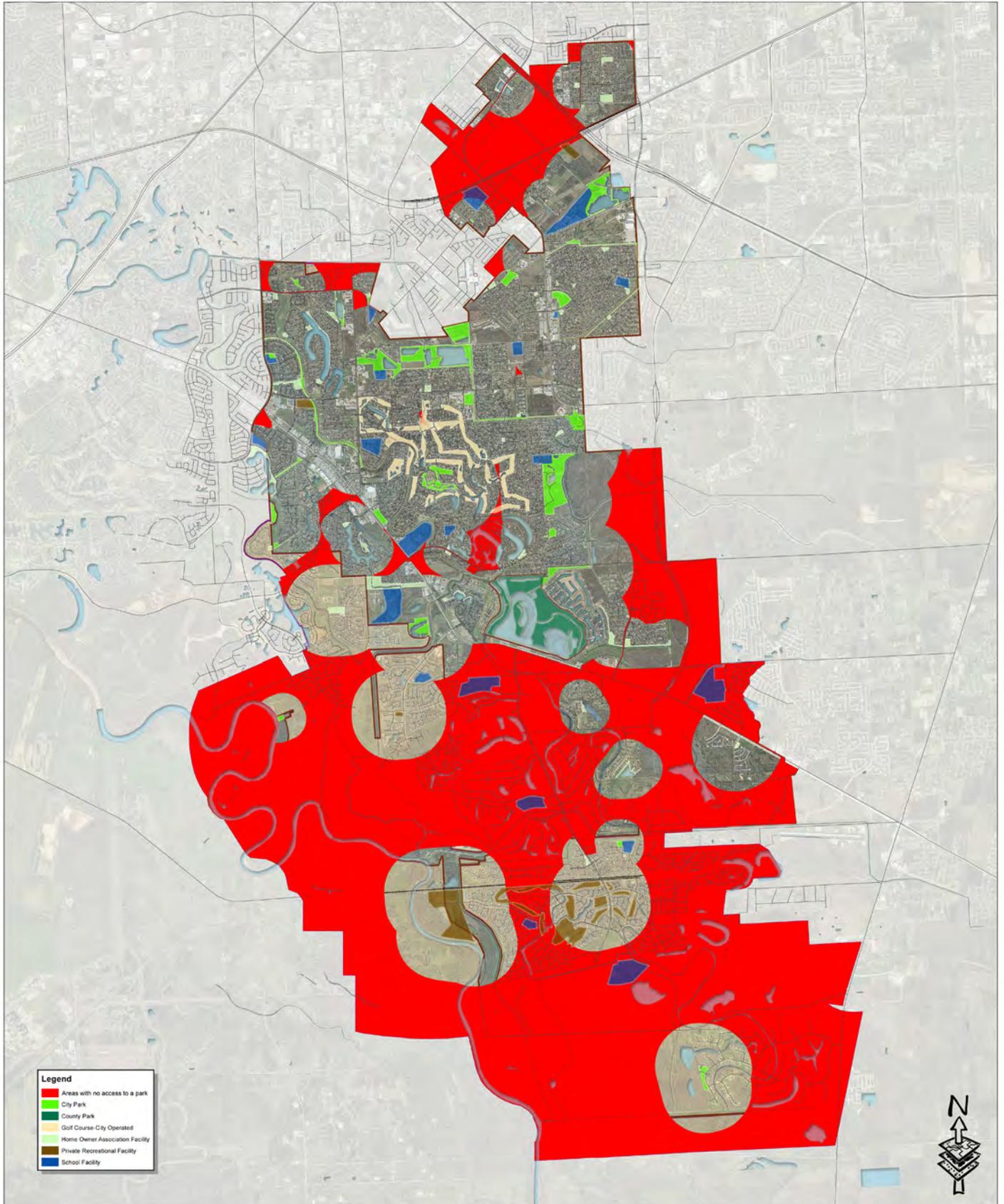




1/2 Mile Neighborhood Parks Service Area

Missouri City Parks and Recreation
Master Plan





Areas with no close-in access to a park

Community Parks in Missouri City

Community parks are large parks, ranging in size from 25 acres to 150 acres, and serve several neighborhoods or a portion of a city. They serve as locations for larger community events, sports and activities. Therefore, they contain many popular recreation and support facilities. Because of the larger service area and additional programs, community parks are more heavily used, increasing the potential for facility deterioration.

The additional facilities associated with a community park increase the spatial requirements necessary for this type of park. Also, community parks often require parking for users who drive from surrounding areas, which increases the amount of space needed. The target level of service for community parks is 5 acres for every 1,000 residents. The service radius of a community park is 2 miles.

Missouri City currently has three developed community parks: Buffalo Run Park, Community Park, and MacNaughton Park; and one undeveloped community park, Riverstone/Stonebrook Sec 1. The four parks total 268.29 acres of community parkland, yielding an existing level of service of 3.85 acres for every 1,000 residents. Future needs for community parkland is discussed to the right.

Community Parks

Community parks:

- Current acres = 268.29
- Current level of service = 3.85 acres per 1,000 residents

Recommended level of service = 5.00 acres per 1,000 residents

Year 2015 Need

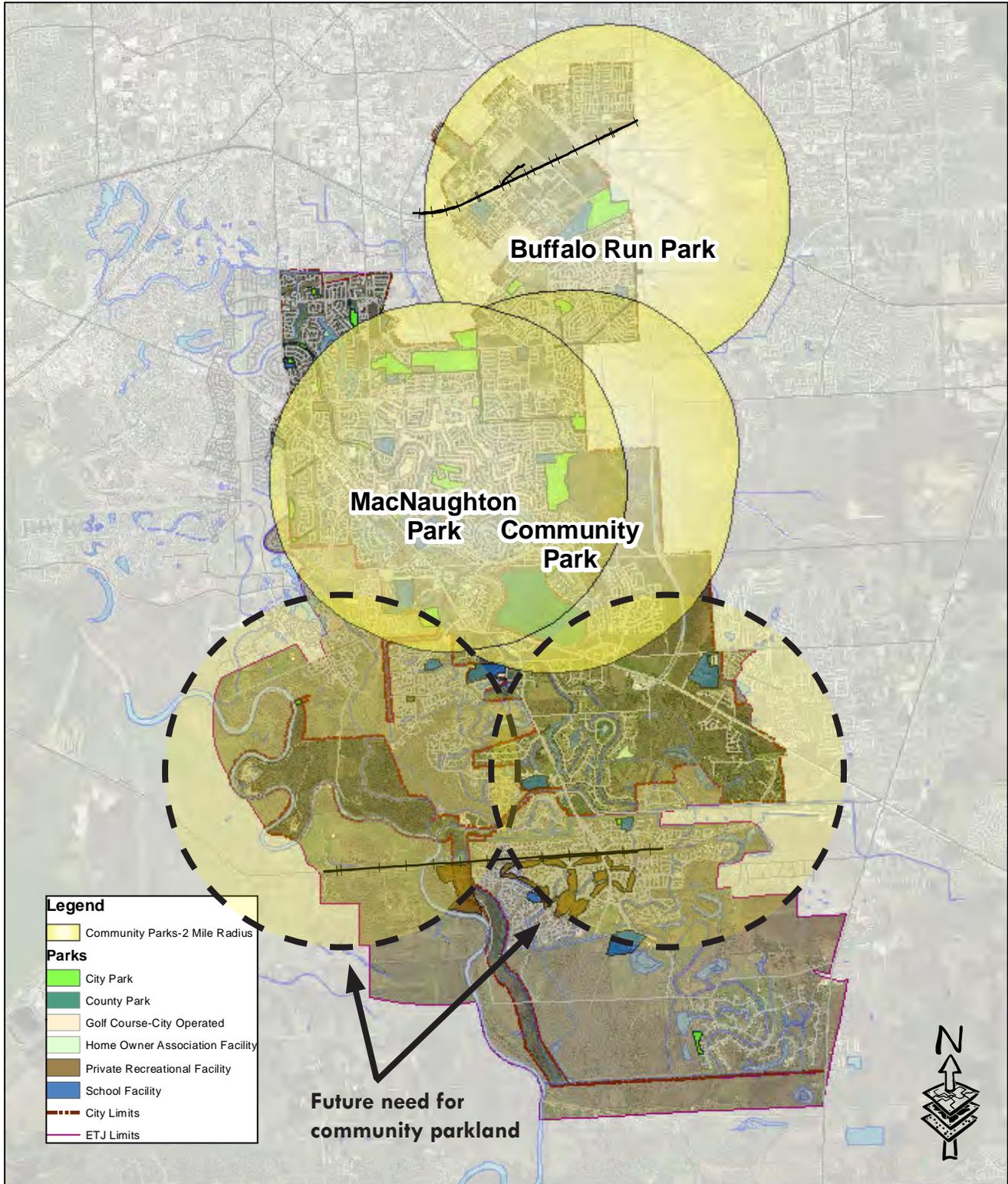
- Current need with 70,185 population = 350.5 acres
- Current deficit of 82 acres

Year 2020 Need

- Projected need with 79,410 population = 397.05 acres
- Deficit of 128.76 acres

Year 2030 Need

- Projected need with 91,045 population = 455.23 acres
- Deficit of 186.94 acres



2 Mile Community Parks Service Area

Missouri City Parks and Recreation
Master Plan



Regional Parks in Missouri City

Regional parks are intended to serve the entire city and surrounding region. Like community parks, they act as locations for larger community events, tournaments, or activities. There is one city-owned regional park in Missouri City, Independence Park. There is also one county-owned regional park in Missouri City, Kitty Hollow County Park.

Regional parks are typically larger than 150 acres, and have a service radius of 10 miles. Both regional parks in Missouri City serve all the residents of the City. The recommended level of service for regional parks is 10 acres per 1,000 residents. Because the county-owned regional park is within the city limits and provides needed park facilities to all residents in Missouri City, it would be unnecessary for the City to duplicate those services. Therefore, the acreage for the county-owned regional park is included in this analysis.

Regional Parks

Regional parks:

- Current acres = 633.02
- Current level of service = 9.07 acres per 1,000 residents

Recommended level of service = 10.00 acres per 1,000 residents

Year 2015 Need

- Current need with 70,185 population = 697.74 acres
- Current deficit of 65 acres

Year 2020 Need

- Projected need with 79,410 population = 794.10 acres
- Deficit of 161 acres

Year 2030 Need

- Projected need with 91,045 population = 910.45 acres
- Deficit of 277 acres



Use of golf course paths at the El Dorado and La Quinta Golf Courses at City Centre provides almost 10 miles of highly scenic walking paths.
Source: Image - Qual Valley Proud, Map - 2013 Bicycle and Pedestrian Mobility Plan



Special Purpose Parks in Missouri City

Special purpose parks are areas designated for a special purpose and can include park types such as golf courses, sports complexes, aquatic centers, plazas or downtown courtyards, and linear parks. Missouri City has three designated special purpose parks (including Quail Valley Golf Course) and five designated linear parks. Because special purpose parks vary by size, type, and from city to city, there are no specific recommended levels of service.

The three special use parks are StaMo Sports Complex, the Recreation/Tennis Center Complex, and the Quail Valley Golf Course which all total 408.66 acres. The five linear parks in Missouri City total 110.52 acres.

Open Space

Open space comes in many forms. It can be the expanses of water and green along the Brazos River, or simply the designated parks within the City. Open spaces are the green ribbons that break up the developed areas of a city. Simply because they are different, these open spaces stand out and can make Missouri City a more memorable city. Preserved open space serves a significant function in terms of wildlife habitat, flood control, and improved air and water quality; however, without being publicly accessible it cannot provide any recreational benefits to the community. While not all open space preserves should be accessed, this master plan recommends that significant preservation efforts be sought along Oyster Creek, Mustang Bayou and the Brazos River, with key public access points for the added benefit of recreation.

Existing open space in Missouri City includes all designated parks, including city-owned, county-owned and private HOA parks. The City-owned golf courses (La Quinta and El Dorado) also contribute the open space assets of the City.

The current amount of open space in Missouri City totals approximately 1,844.21 acres yielding an existing level of service of over 26 acres for every 1,000 residents of Missouri City. This is a significant amount and places Missouri City in a select group of cities in Texas with this high an amount of open space.

Areas along the Brazos River should be targeted as key future open space preserves, whether controlled by Missouri City or not.

Future open space should be preserved if it has some unique value, and not simply to meet a specific acreage target. Therefore, the suggested target level of service for open space shown should be treated as a benchmark noting where the City is today, and to provide a target to strive to meet.

Special Purpose Parks

Special Purpose parks:

- Current acres (including golf course) = 408.66
- Current level of service (including golf course) = 5.86 acres per 1,000 residents

Linear Parks:

- Current acres = 110.52
- Current level of service = 1.58 acres per 1,000 residents

Open Space

Open space:

- Current acres = 1,844.21
- Current level of service = 26.43 acres per 1,000 residents

Recommended level of service = 25 +/- acres per 1,000 residents

Year 2015 Need

- Current need with 70,185 population = 1,752 acres
- Currently no deficit of open space

Year 2020 Need

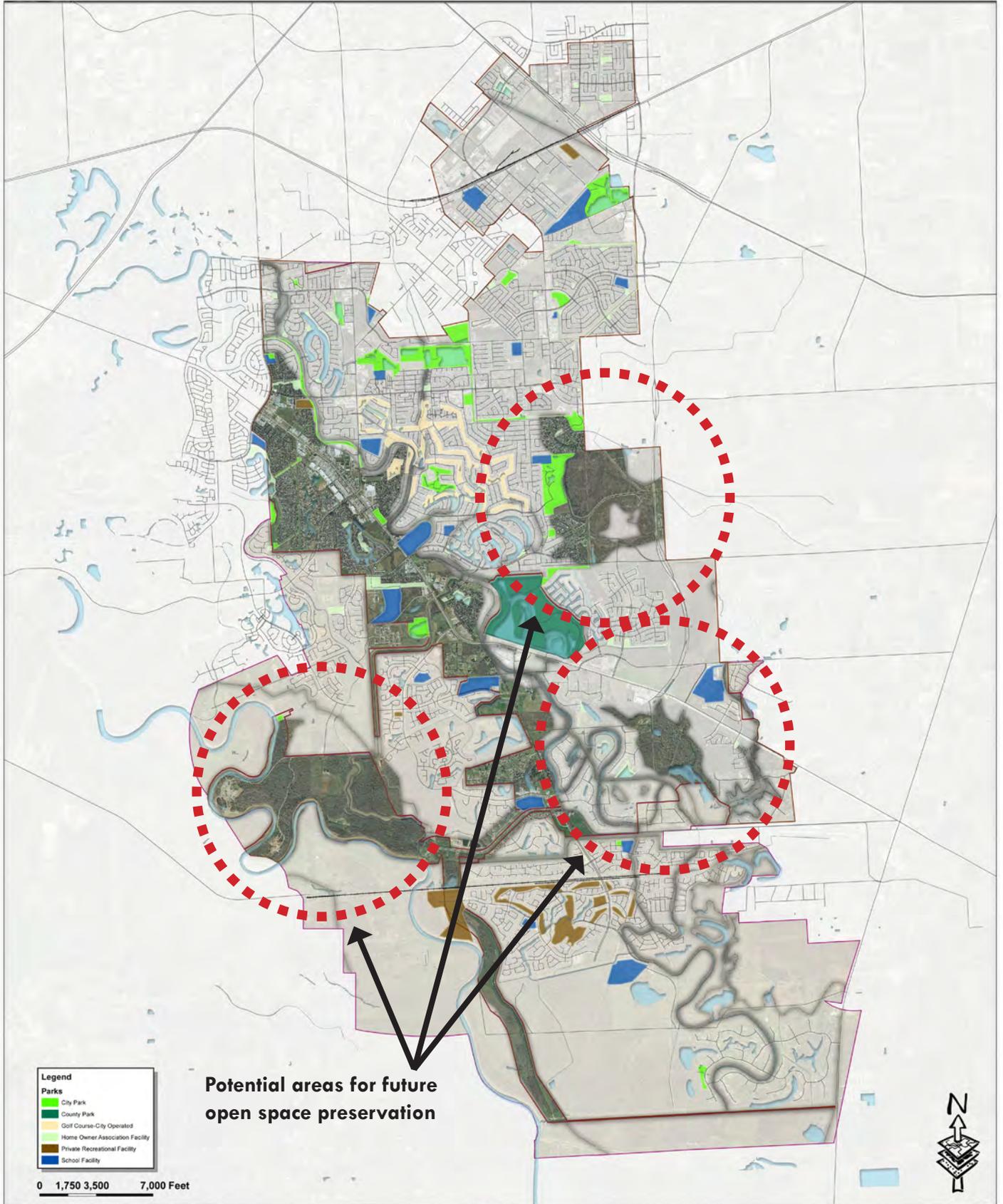
- Projected need with 79,410 population = 1,985.25 acres
- Deficit of 141 acres

Year 2030 Need

- Projected need with 91,045 population = 2,276.13 acres
- Deficit of 432 acres

CHAPTER 5

NEEDS ASSESSMENT





Summary of Park Acreage Needs

The acquisition of parkland is crucial to ensure that adequate green space is preserved in Missouri City. Acquisition should be accomplished in a consistent and goal oriented manner. Although large areas of Missouri City in the southern half are still undeveloped, development is happening and a rigorous effort should be made to continue to acquire sufficient land for future park needs. The key acreage needs for the next ten years in Missouri City are summarized below. These findings form part of the master plan recommendations.

Key Park Acreage Needs

Mini and Neighborhood Parks:

- The City's parkland dedication ordinance will ensure future developments have mini and neighborhood parks within them. The main issue for future neighborhood parks is a central location within the neighborhood to ensure adequate access for all the residents the park is meant to serve.

Community Parks:

- The most significant focus for acquisition in the future for Missouri City should be on community parks. By 2020, there will be a 130+/- acre deficit of community parkland. Large community parks are needed in the south and eastern portions of the City, especially since those are the fastest growing areas of the City and are currently underserved with no access to a community park.

Regional Parks:

- By 2030, Missouri City will need at least one more large regional park to accommodate the future population growth. An ideal location for a future regional park would be in the south, possibly along the Brazos River.

Special Use Parks:

- Missouri City has the good start of a linear park system along Oyster Creek and the drainage corridors throughout the City. The City should continue developing linear parks along Mustang Bayou and the Brazos River to establish trail corridors that will link all areas of the City.
- Additional athletic complexes should be designed into any future community parks.

Open Space:

- Much of the open space need will be accomplished through the acquisition of additional parkland. However, the City should also seek to preserve open space lands which are solely designated for undeveloped preservation. These areas would offer wildlife habitat, flood control, and nature viewing opportunities in a highly suburban environment where few opportunities exist to experience nature.
- Areas along the Brazos River should be targeted as key future open space preserves, whether controlled by Missouri City or not.

Level of Service - Facility Assessment

Facility standards and target levels of service define the number of facilities recommended to serve each particular type of recreation. They are expressed as the usage capacity served by each recreational unit, as well as the level of access to each type of facility from all parts of the City. The target levels of service shown on the following pages are based on comparisons with recognized standards, comparisons to other similar cities in Texas, the actual number of facilities in Missouri City, and the amount of use each facility receives.

The following page has a description of the 2015 target level of service for each recreational facility. Facility needs are based both on ratios related to existing population, as well as the amount of demand for each type - which is based on public input and user information where available. As with the acreage standards discussed earlier, the facility target levels of service are adjusted based on Missouri City's unique recreational goals. The target level of service for each type of facility is determined as a guide to provide the most basic recreation facilities to the community.

The National Recreation and Parks Association (NRPA), in their publication *Recreation, Park and Open Space Standards and Guidelines*, edited by R.A. Lancaster, defines recreation and park standards in this manner:

“Community recreation and park standards are the means by which an agency can express recreation and park goals and objectives in quantitative terms, which in turn, can be translated into spatial requirements for land and water resources. Through the budget, municipal ordinances, cooperative or joint public/private efforts, these standards are translated into a system for acquisition, development and management of recreation and park resources.”

The publication further describes the role standards have in establishing a base for the amount of land required for various types of park and recreation facilities, in developing the community's acceptable minimum correlating needs to spatial requirements, and for providing justification for recreational expectations and needs.

The national and state standards are a useful guide in determining minimum requirements; however, the City of Missouri City must establish its own standards in consideration of expressed needs of the residents and the City's economic, operational, and maintenance capabilities.

Tables 9 and 10 summarizes the existing level of service for park facilities, as well as the target level of service and the amount of facilities needed by 2020 to meet that target level (with a projected population approaching 77,000 to 79,000 residents).



Table 9 - Existing Level of Service for City-Owned Park Facilities

Facility		Current Amount	Current LOS (1 facility per residents)	Target LOS (per residents)	2020 Need Based on Population	2020 Deficit or Surplus
Active Recreation	Backstop	2	34,890 residents	1 per 5,000	16	Deficit 14
	Baseball Fields	12	5,815 residents	1 per 5,000	16	Deficit 4
	Basketball Courts	8	8,720 residents	1 per 10,000	8	No deficit
	Batting Cage	4	17,445 residents	1 per 10,000	8	Deficit 4
	Disc Golf	1	69,775 residents	1 per planning area	4	Deficit 3
	Dog Park	0	None	1 per planning area	4	Deficit 4
	Horseshoe Pits	1	69,775 residents	2 per planning area	8	Deficit 7
	Recreation Center	24,488 sf	0.35 sf per resident	0.5 sf per resident	39,705 sf	Deficit
	Sand Volleyball	2	34,890 residents	1 per 20,000	4	Deficit 2
	Soccer Fields	20	3,490 residents	1 per 5,000	16	Surplus
	Softball Fields	8	8,720 residents	1 per 5,000	16	Deficit 8
	Splash Pad	1	69,775 residents	1 per planning area	4	Deficit 3
	Swimming Pool	0	None	Undetermined		No deficit
	Tennis Courts	15	4,650 residents	1 per 5,000	16	Deficit 1
	Trails	30+ miles	2,330 residents	1 mile/2,500	32 miles	Deficit of 2
Passive Recreation	Amphitheater	1	69,775 residents	2 per city	2	Deficit 1
	BBQ Grills	20	3,490 residents	1 per 3,000	26	Deficit 6
	Benches	81	860 residents	1 per 1,000	79	Surplus
	Community Garden	0	None	2 per city	2	Deficit 2
	Gazebo	1	69,775 residents	1 per 20,000	4	Deficit 3
	Pavilions	19	3,670 residents	1 per 4,000	20	Deficit 1
	Picnic Tables	103	675 residents	Varies	Varies	Varies
	Playgrounds	17	4,105 residents	1 per 4,000	20	Deficit 3
Water Rec.	Boat Ramps	2	34,890 residents	Where feasible	Where feasible	Feasible
	Fishing Piers	7	9,965 residents	1 per 10,000	8	Deficit 1
	Lake Fountains	3	23,260 residents	Where feasible	Where feasible	Feasible
	Ponds	9	7,750 residents	Where needed	Where needed	Needed
Infrastructure	Bicycle Rack	6	11,630 residents	Varies	Varies	Varies
	Drinking Fountains	25	2,790 residents	Varies	Varies	Varies
	Trash Bins	239	290 residents	Varies	Varies	Varies
	Parking	2,189	32 residents	Where needed	Where needed	Needed
	Restrooms	13	5,365 residents	Where feasible	Where feasible	Feasible

Table 10 - Level of Service Combining City-Owned and HOA Park Facilities

Facility		Current Amount	Current LOS (1 facility per residents)	Target LOS (per residents)	2020 Need Based on Population	2020 Deficit or Surplus
Active Recreation	Backstop	5	13,955 residents	1 per 5,000	16	Deficit 11
	Baseball Fields	16	4,360 residents	1 per 5,000	16	No Deficit
	Basketball Courts	11	6,340 residents	1 per 10,000	8	Surplus
	Batting Cage	4	17,445 residents	1 per 10,000	8	Deficit 4
	Disc Golf	1	69,775 residents	1 per planning area	4	Deficit 3
	Dog Park	1	69,775 residents	1 per planning area	4	Deficit 3
	Horseshoe Pits	2	34,890 residents	2 per planning area	8	Deficit 6
	Recreation Center	24,488 sf	0.35 sf per resident	0.5 sf per resident	39,705 sf	Deficit
	Sand Volleyball	7	9,965 residents	1 per 20,000	4	Surplus
	Soccer Fields	29	2,405 residents	1 per 5,000	16	Surplus
	Softball Fields	12	5,815 residents	1 per 5,000	16	Deficit 4
	Splash Pad	1	69,775 residents	1 per planning area	4	Deficit 3
	Swimming Pool	34	2,050 residents	Undetermined		
	Tennis Courts	53	1,315 residents	1 per 5,000	16	Surplus
	Trails	30.32 miles	2,300 residents	1 mile/5,000	15.9 miles	Surplus
Passive Recreation	Amphitheater	1	69,775 residents	2 per city	2	Deficit 1
	BBQ Grills	29	2,405 residents	1 per 3,000	26	Surplus
	Benches	253	275 residents	1 per 1,000	79	Surplus
	Community Garden	0	None	2 per city	2	Deficit 2
	Gazebo	7	9,965 residents	1 per 20,000	4	Surplus
	Pavilions	34	2,050 residents	1 per 4,000	20	Surplus
	Picnic Tables	215	325 residents	Varies	Varies	Varies
	Playgrounds	54	1,290 residents	1 per 4,000	20	Surplus
Water Rec.	Boat Ramps	3	23,260 residents	Where feasible	Where feasible	Feasible
	Fishing Piers	13	5,365 residents	1 per 10,000	8	Surplus
	Lake Fountains	3	23,260 residents	Where feasible	Where feasible	Feasible
	Ponds	15	4,650 residents	Where needed	Where needed	Needed
Infrastructure	Bicycle Rack	23	3,035 residents	Varies	Varies	Varies
	Drinking Fountains	40	1,745 residents	Varies	Varies	Varies
	Trash Bins	336	205 residents	Varies	Varies	Varies
	Parking	2,946	24 residents	Where needed	Where needed	Needed
	Restrooms	41	1,700 residents	Where feasible	Where feasible	Feasible



Summary of Park Facility Needs

Picnic facilities, playgrounds, drinking fountains, and benches are key needs that are typically included in every park. The priority for these types of facilities will be to replace dated and damaged facilities on a regular basis within the City-owned parks. The design of future parks should include a cluster of tables, water fountains, and designated zones for picnicking activities.

The City has a significant deficit of practice fields/backstops - Practice fields should be distributed in every part of the City, and added to all parks where feasible. Practice fields are essential to a community to ensure the quality of athletic game fields are maintained at a higher level. Teams should not have to practice on the same fields as they play games on, if at all possible.

Missouri City currently has a deficit of baseball fields and softball fields - Because the facilities at Sienna Sports Complex are private, they do not help alleviate the need for more fields. As a result, the existing fields are over used and need improvements.

The City is lacking in special use facilities such as dog parks, a skate park, community gardens, disc golf courses, horseshoe pits, and sand volleyball courts - These types of facilities enhance the quality of life for residents, give Missouri City a little something extra that makes it an even better place to live, and are generally low-cost amenities to add to existing parks compared to other facilities.

Trail needs - Missouri City has the start to a well connected trails system along Oyster Creek and the drainage corridors in the northern part of the City. The expansion of this trails system is needed so that the trails connect to destinations and neighborhoods, creating a citywide system of off-street facilities.

Additional splash pads - The one splash pad at Hunters Glen Park in Missouri City is highly popular among residents. A similar feature should be added to an existing park in each of the other three park planning areas over time. The need for swimming pools is currently being met by HOAs. Most residents in the City have access to a HOA pool. Providing one to two more splash pads in the City will help meet the existing aquatic needs.

Special needs facilities - continue to develop facilities and programs that stress inclusiveness. These may range from play areas or spray grounds that allow use by all abilities, to activities that engage both youth and adults in fun recreational events and programs. Support efforts by the ARC of Fort Bend County and others who are on the front line of providing inclusive services and programs.

Benchmarking

Benchmarks are used as a further reference point for where one particular city ranks when compared to other cities with similar characteristics. A list of benchmark cities throughout Texas was compiled for Missouri City. These cities were rated similar to Missouri City in *Money Magazine's* list of Best Small Cities to Live in 2010. For the purpose of this planning process, the benchmark cities are identified as:

- Carrollton
- Cedar Park
- Mansfield
- Pflugerville
- Richardson
- Rowlett
- Sugar Land

Once the benchmark cities were identified, they were then compared to Missouri City in terms of city-owned park acreage, miles of trails, number of city-owned swimming pools, budget dollars per capita, and number of FTE employees in the Parks and Recreation Department. Data from 2013, the most recent available for all of the cities was used. A summary of the benchmark cities and how Missouri City compares is shown in the table below. Significant findings from the benchmark study include:

- Three out of the seven benchmark cities have more park locations than the City of Missouri City. However, six of the seven benchmark cities have more park acreage than Missouri City. The only city with less park acreage is Pflugerville.
- When comparing the ratio of park acres to the population, Missouri City is again ranked seventh out of eight. This directly correlates with the amount of park acreage discussed above.
- The benchmark cities were also compared to the amount of parkland as the overall percentage of the city's land area. Currently, city-owned parkland accounts for 4% of the total land area in Missouri City. Missouri City was again ranked seventh out of eight, with only Mansfield as having a lower percentage of their land area as being parkland.

2013 Benchmarking for Missouri City's Parks and Recreation System

City	2011 Census Population Estimate	Total Number of City-Owned Parks	Total City-Owned Park Acreage	Acres per 1,000 Residents	Park Acreage as % of City Land Area
Missouri City	69,774	34	733.11	10.5	4%
Carrollton	122,640	52	1,493.88	12.2	6%
Cedar Park	51,283	46	888.33	17.3	6%
Mansfield	57,627	18	756.60	13.1	3%
Pflugerville	48,753	24	693.10	14.2	10%
Richardson	101,742	35	892.91	8.8	5%
Rowlett	57,463	13	983.45	17.1	8%
Sugar Land	81,700	27	1,126.12	13.8	7%



- Missouri City has the start to a well connected trails system. The City is ranked fourth out of eight in total miles of trails. When comparing miles of trails per capita, Missouri City is ranked fifth out of eight. Cedar Park, Pflugerville, Richardson and Sugar Land have a higher ratio of miles of trails per capita.
- City-operated swimming pools are starting to become a hot button issue among residents and fiscally conservative elected officials. Many HOAs and private gyms now provide leisure and fitness pools, and often times a school district could provide a competition natatorium. So the issue is what type of swimming pool should a city operate, if any? All but one of the benchmark cities has at least one city-operated swimming pool, and the highest number is Richardson with five city-operated swimming pools.
- Missouri City is ranked seven out of eight in terms of budget dollars per capita. Budget information was not available for the City of Mansfield. However, all other cities had a parks and recreation department budget that was significantly higher on a per capita basis. Carrollton has a parks and recreation department budget that is nearly doubled Missouri City's on a per capita basis, and Richardson's budget is nearly triple that of Missouri City on a per capita basis.
- Similarly, the parks and recreation budget as a percent of the overall general fund is the lowest for Missouri City when compared to the benchmark cities. Missouri City also has the fewest number of full-time equivalent staff persons when compared to the other benchmark cities.

2013 Benchmarking for Missouri City's Parks and Recreation System (cont.)

Total Miles of City Trails	1 Mile of Trails per Capita	# of City-owned Swimming Pools	FY 2012/2013 Adopted PARD Budget	PARD Budget Dollars per Capita	PARD % of General Fund Budget	PARD Staff FTE
25.37	2,750	0	\$2,719,554	\$38.98	8.2%	17
20.5	5,971	1	\$9,645,482	\$78.65	12.2%	34
22.1	2,320	3	\$3,014,659	\$58.78	9.0%	31.5
4.0	14,407	1	Fiscal year 2012/2013 budget is not available.			
30.5	1,598	3	\$2,838,244	\$58.22	12.8%	28
40.0	2,544	5	\$11,465,049	\$112.69	11.7%	unknown
8.4	6,841	1	\$3,451,326	\$60.06	10.5%	45
37.25	2,193	0	\$5,611,659	\$68.69	8.8%	36.13

Demand-Based Assessment

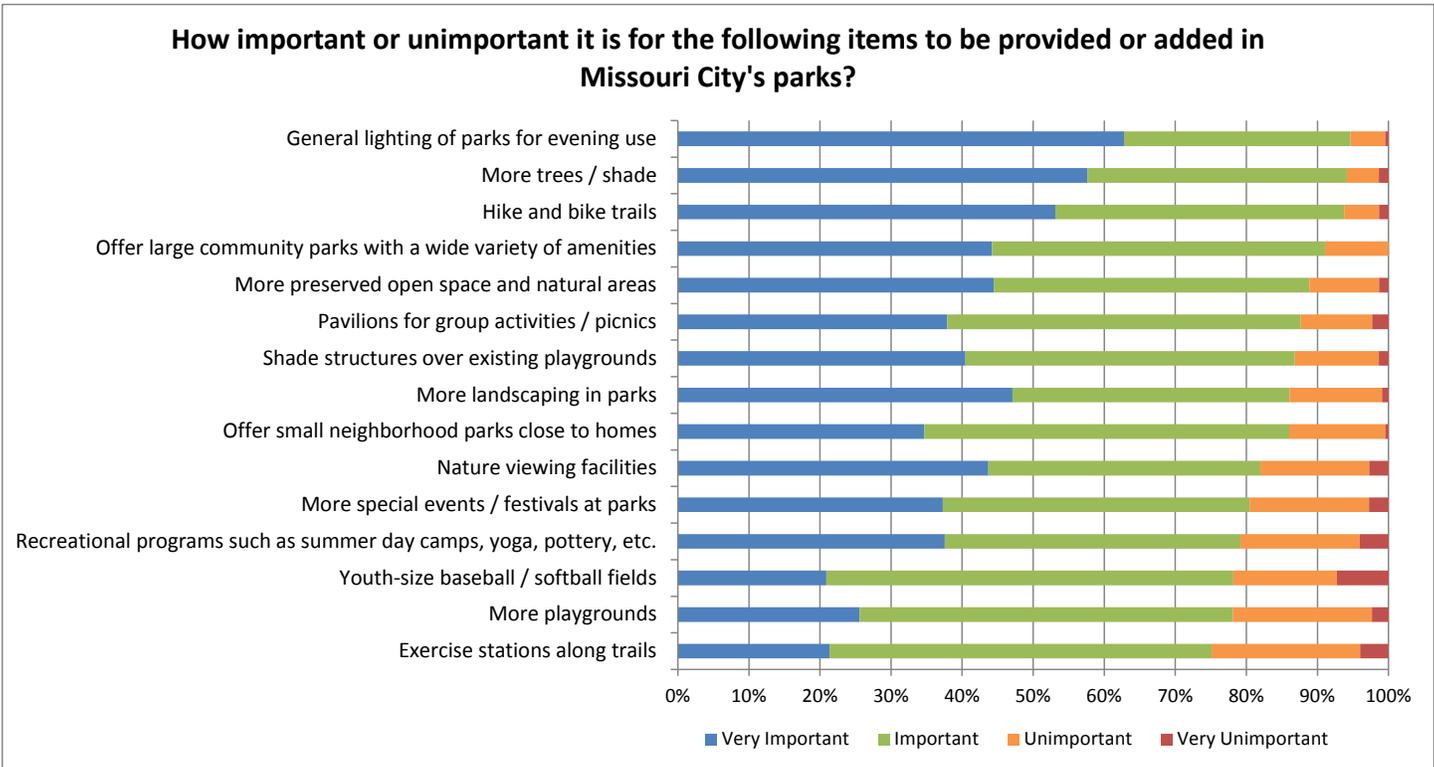
Demand was also used to determine what additional facilities are needed in Missouri City. Demand is based on actual level of use of the parks where available, and the preferences expressed by citizens through stakeholder interviews, the citywide online survey, and the public input meeting.

Public input is a critical part of any planning process. Public entities work for their citizens by providing and managing the type of facilities the residents and taxpayers want to have. In essence, our citizens are our “customers” and it is a city’s responsibility to provide what our customers want with approved funding. In the parks planning process, public input helps identify what types of existing facilities are being used, where key deficiencies may occur, and where the citizens of Missouri City would like to see their funding targeted.

Summary of Online Survey

How important or unimportant is it to provide or add the following recreational facilities to parks in Missouri City?

Residents who participated in the online survey were given a significant list of different recreational facilities and amenities. They were asked to rate each one in terms of how important or unimportant they feel it is to provide or add them to parks in Missouri City. The facility receiving the highest level of importance was adding general lighting to parks for evening use (95%). This was followed by more trees and shade, and more hike and bike trails (both receiving 94% importance rating). The fourth most important item was offering large community parks with a wide variety of amenities (91%), and the fifth most important item was providing more preserved open space and natural areas (89%). The top 15 responses are shown in the graph below.





What are the three facilities that you and your family feel are most needed in Missouri City?

Respondents were then given the list of facilities again, and asked to select the top three that they feel are most needed in Missouri City. The results varied slightly from what respondents felt were important to provide. The top most needed facilities are listed below.

1. Hike and bike trails (35%)
2. Dog parks (off leash areas) (22%)
3. More preserved open space and natural areas (21%)
4. Offer large community parks with a wide variety of amenities (19%)
5. More special events/festivals at parks (17%)
6. Amphitheater (17%)
7. Offer small neighborhood parks close to homes (17%)
8. City-operated swimming pool (16%)
9. Splash pads/spraygrounds (12%)
10. Fishing piers (11%)

Summary of Stakeholder Needs

Some of the common themes and key concerns that were discussed with the stakeholder groups included:

- Programs offered at the Community Center need to be better advertised
- The Community Center should be renovated and expanded so that it continues offering programs, and programs have the opportunity to expand
- Renovations need to be made to Sta-Mo Park
- Community Park needs to be expand and some renovations are needed
- The City needs better connectivity with trails and sidewalks

Summary of Public Meeting/Open House Input

The recreational facilities and amenities that were most supported by the residents who attended the public meeting/open house were:

- Developing new trails
- Renovating Sta-Mo Park
- Preserving more open space
- Renovating the amphitheater at Community Park
- Overall beautification and improvements to existing parks

Resource-Based Assessment

The resource-based assessment addresses key physical features of the City that may be incorporated as potential recreational opportunities. Both man-made and natural features can be considered. The City of Missouri City has numerous landscape features that should be preserved and/or adapted for recreational use and open space preservation where feasible. These include Oyster Creek, Mustang Bayou, drainage corridors, the Brazos River, utility right of ways, and railroad right of way. The use or development of each resource should be determined on a case-by-case basis, depending on the unique characteristics of each location and the opportunities that can be afforded without damaging environmentally sensitive features. It is important to approach the use and development of these various resources in a unified, coordinate manner in order to realize the best results from each.



Example of an existing trail along a drainage corridor in Missouri City

Creek, River and Drainage System

Missouri City has a very extensive system of creeks, drainage corridors and the Brazos River that flows through the City. This master plan strongly recommends the preservation of greenbelts throughout Missouri City by making serious efforts to expand the recreational corridors along Oyster Creek, Mustang Bayou and the Brazos River. Key criteria should be to:

- Preserve the larger of the 100 year floodplain or a 300 foot wide corridor along undeveloped or underdeveloped creek areas. Ensure flood control and recreation opportunities by preventing unrestricted encroachment and destruction of the vegetative areas along the creeks and their tributaries.
- Acquire and preserve, where feasible, drainage streams that can create linkage to adjacent neighborhoods. Preserve more than just the bar minimum for drainage purposes.
- Work with landowners and homeowners to create linear vehicular and pedestrian parkways along the edges of the floodplain, rather than backing lots up to it. Such design will open the creek areas up to the benefit of enjoyment for all residents. Where feasible, this concept should be retrofitted to existing conditions.
- Acquire land that is regularly subjected to flooding, remove all improvements, and restore the flood area to a healthy and functional ecosystem. This means returning the floodplain to the creeks with the benefit of flood control and recreation access.

Preserving creeks and drainage corridors will assist in addressing the need for linear parks and open space in the City. This will also provide the opportunity for further development of hike and bike trails.

Rights of Way

Utility rights of way are linear in nature which makes them ideal for hike and bike trails.

Developing trails along utility rights of way and other easements should be a priority over the next ten years.

Railroad rights of way have two characteristics that also make them ideal for trails: their linear nature and their gentle topography change. An added aesthetic value of a railroad right of way is that trees along its length often provide special character and natural interest. Where there is adequate right of way, such as in the southern portion of the City, the City should actively pursue developing trails along these corridors.



Indoor Facility Needs

Missouri City Recreation and Tennis Center

The addition of an indoor recreation center in 2012 greatly enhanced the City's ability to provide indoor recreation facilities and programming. The Center is heavily used, and serves as a "heart for the entire recreation system.

Facility amenities include:

- 24,488 square feet in size
- Lighted outdoor tennis courts
- Cardio & Weight room
- 3 multi-purpose rooms
- Oversized gymnasium
- Kid Zone and batting Cages

Additional Recreation Center amenities

- Treadmills, ellipticals, bikes and rowing stations
- Indoor turf for sports performance/personal training area
- Free weights, dumbbells, circuit area and cardio theater
- Open gym times for basketball and volleyball
- Group fitness & dance classes (at an additional cost for some programs)
- Tennis lessons & league play (at an additional cost for some programs)



City Centre

The availability of rental space in the City Centre is a tremendous asset of the Parks System as it provides the ability of residents to hold personal events in their hometown. The facility also serves as a location for city sponsored community building events and programs such as summer day camp.

The facility has five locations available for events: the luxurious Magnolia Ballroom, the Bluebonnet Room, the more intimate Azalea Room, the Oak Conference Room and the large green outdoor lawn next to the 18th holes of both El Dorado and La Quinta Golf Courses. Each venue offers attractive backdrops for special occasions.

- Magnolia Ballroom - accommodates up to 350 people (2940 sq. ft.)
- Bluebonnet Room - accommodates up to 150 people (1470 sq. ft.)
- Azalea Room - accommodates up to 60 people (792 sq. ft.)
- Outdoor Patio - accommodates up to 120 people (with access to the Bluebonnet Grill and a view of El Dorado's 18th hole)
- Bluebonnet Grill - offers a relaxed atmosphere with the availability of food



Community Center

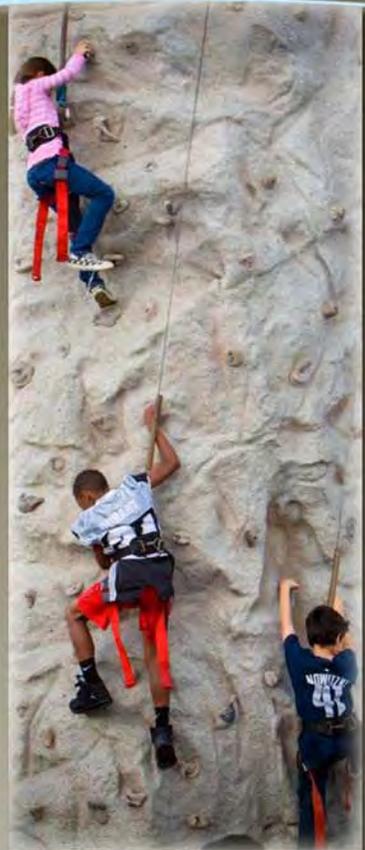
The Missouri City Community Center auditorium allows a versatile setup of banquet or classroom style accommodations. The auditorium is over 6,000 square feet with a maximum capacity of 400 guests. It is used for both large public and private events as well as for specialized classes.

Key Indoor Recreation and Community Facility Needs

Key indoor recreation needs are as follows:

1. The City Centre provides attractive facilities for both City and private events. Continue to ensure that facilities are available for rental by city residents for reasonable rates appropriate to the high quality of the facilities.
2. The popularity of the Missouri City Recreation Center calls for its enlargement through the addition of a second basketball gym and additional recreation programming classrooms.
3. The Community Center building should also be renovated for continued use as an event location (if not converted into other city uses).

Prioritization and Recommendations



Recommendations Introduction

With the multitude of choices available today, people's priorities when relocating to a new city are often determined by the type of lifestyle they desire rather than a specific job. The question then becomes: how do we capture, attract and keep residents in Missouri City? Quality lifestyles are not only about functional infrastructure, safety and education, but are often defined by the intangibles of mental well-being including happiness, beauty and a sense of belonging.

The vision for the 2015 Parks and Recreation Master Plan is to support and help maintain Missouri City's character and sense of home while providing state-of-the-art recreation facilities that new residents are seeking. Missouri City is challenged to make a commitment to sustainability, quality and beauty while experiencing the pressures of growth.

Sustainability - Due to a better understanding today of the effects of pollution and over-development in a finite environment, the awareness of the importance of environmental stewardship is not a fad anymore; but rather regarded as a basic standard by most people today. Therefore, Missouri City should commit to developing and operating in a sustainable manner.

Quality - Today's young families, which are prevalent in Missouri City, are drawn to cities with state-of-the-art parks and recreation facilities. These people expect to find amenities in cities similar to or better than what they experienced in their prior communities. Attracting and retaining residents, as well as businesses to employ and serve such residents, will depend on providing high-quality parks and recreation facilities in Missouri City.

Beauty - However it is defined, all people seek to have access to beautiful surroundings and environments. Therefore, commit to providing attractive places for people to linger, to play, or to pass by.

Missouri City's parks and recreation system is a vital part of what has and will continue to help Missouri City gain recognition as a great and sustainable place to live. In fact, it may be the most visible and tangible element of that elusive quality of life that all cities seek. This master plan builds upon what is already in place, and builds a framework that can unify all parts of the City.

Philosophical Background of Recommendations

All of the recommendations in this master plan follow certain key points that should guide park related choices in Missouri City. These key philosophical points reinforce and expand upon the goals that were established in Chapter 1.

- Every park should be considered as a signature element in that part of the City. No park is less important than any other. Parks should always be carefully chosen sites so that they are prominent features in their respective neighborhoods. Where possible, they should include extensive mature trees and landscaping.
- Parks should follow a consistent citywide design theme. Fundamental items such as park signs, high quality pavilions with similar color and design, and an emphasis on preserving existing vegetation and trees should be used in every new and existing park to create a consistent and recognizable park look for Missouri City.
- Parks should celebrate the history and culture of Missouri City. Parks can incorporate historical plaques and features that allude to the area or neighborhood around the park, the circumstances that caused the park to be created, or some other unique event that happened in Missouri City.



- Consider implementing public art in some parks and along trails (where appropriate). Public art, often created by local artists that can be supported by the City, is an easy way to make many parks and trails in Missouri City much more memorable.
- Parks that include bodies of water should be highly valued. These should continue to be one of the signature elements of Missouri City parks. Existing areas of water, whether in the form of ponds or along creeks, should be included in parks where feasible.
- Shade should be a standard component of every park. In all parks, playgrounds and picnic areas should be covered, either by trees, shade structure canopies or pavilions.
- Create a defined and easily recognizable “entrance” for parks in Missouri City. Every park should have a front door. Even parks that have street frontage on two or three sides can still include features that announce this is a valuable space in Missouri City.
- Parks should be designed so as to reduce maintenance. Automatic irrigation should be a key component throughout the active zones of every park, as well as native grasses and landscaping that make every park easier to maintain.

Priority of Recommendations

The following 18 actions comprise the major priority recommendations of the 2015 Missouri City Parks and Recreation Master Plan. Illustrations included with each of these items are intended to convey the essence of each recommendation, but unless noted otherwise, are not actual plans. Detailed concepts and fully developed cost projections should be developed as each recommendation begins to be implemented. Actions are divided into three categories, based on the level of need:

- **High Priority Actions** - To be initiated or completed within the next five years.
- **Medium and Long Term Priority Actions** - To be initiated within the next five to ten years, or as opportunities occur.

Note that the prioritization shown in this plan is intended to guide staff and council actions, and any item may be initiated sooner than recommended if unique circumstances or opportunities arise. The following pages illustrate a summary of the major recommendations.

High Priority Recommendations (Indoor Needs)



Existing single gym at the recreation center.

Action 1 (Indoor) - Construct 2nd gym at the Recreation Center

Need for this action - The new recreation center currently has one gym that is heavily overused. A second gym is needed to alleviate the overcrowding. Also, a second gym will allow for multiple games to be played simultaneously. Enlarging the gym space can accommodate more programming such as camps, classes and multiple sports.

Estimated cost range - \$2.5 million +/-

Potential Timeframe - Within five years



Examples of double court gyms



Action 2 (Indoor)- Renovate and Expand the Community Center Building

Need for this action - The current community center building is located next to City Hall and is used for some recreational programming and special events. Expanding the community center will allow for current programs to grow and the City has the potential to offer multiple programs at the same time. Expanding the banquet room would also allow for larger events. Several of the existing program facilitators also asked for expanded and individual storage space that could be used to hold the equipment for their programs.

Other renovations include expanding the parking lot, sound proofing the wall partitions, adding wall mirrors, adding a parent viewing room, adding security cameras in the parking lot, and adding an electronic message to better advertise programs. Potential locations for the message board could be along Cartwright Road near the Recreation and Tennis Center, or along Texas Parkway near City Hall.

Estimated cost range - TBD

Potential Timeframe - Within ten years and beyond



Existing community center. Photos source: City of Missouri City



Example of an electronic message board

High Priority Recommendations (Outdoor Needs)

Action 1 - Renovate MacNaughton Park (Outdoor Recommendation)

Need for this action - The master plan for MacNaughton Park was completed shortly after the City took over the property as a park. Renovations that the master plan recommends include adding playgrounds and shade structures, improving the trail, adding fitness stations, a restroom, parking, trees, and enhancing the landscaping.

Estimated cost range - \$1.2 million to \$2.0 million +/-

Potential Timeframe - Within five years



Existing MacNaughton Park. Photo source: Missouri City Parks & Recreation Department



MacNaughton Park concept master plan. Source: City of Missouri City



Action 2 - Construct a sports complex

Need for this action - Currently, the majority of soccer fields in Missouri City are concentrated at Community Park, with the rest of the fields being scattered throughout several parks, each with only two or three fields. The fields at Community Park are only in adequate condition for league play. Constructing a new sports complex will provide quality fields for the residents, and reduce the congestion at Community Park so that the current space could be converted into other uses. A new sports complex would require approximately 30 acres of land with eight to ten fields of various sizes. There should also be concession/restroom buildings, parking, playground features, sidewalks and walking trails, bleachers/spectator seating with shade covers, and lighting. The images on this page show examples of soccer complexes throughout the southwest United States.

Estimated cost range - \$8 million to \$10 million +/-

Potential Timeframe - Within five years



Examples of sports complexes



CHAPTER 6

PRIORITIZATION OF NEEDS AND RECOMMENDATIONS

Action 3 - Develop a skate park component

Need for this action - Skate parks are quickly becoming one of the most popular amenities for a city to offer for youth and young adults. The skate park is proposed to be for both skateboarders and BMX bikers. Skate parks are typically located within existing community parks that are easily accessible from all parts of the city, and a location should be identified by City staff and area residents.

Estimated cost range - \$250,000 to \$500,000 +/-

Potential Timeframe - Within five years



Examples of different types of skate parks





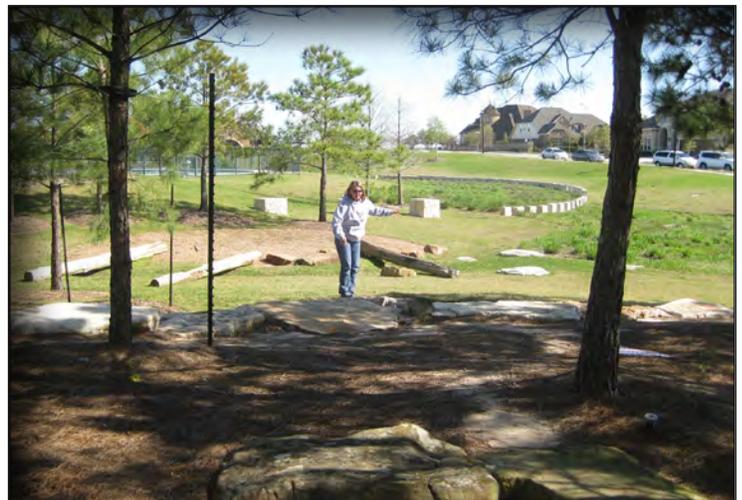
Action 4 - Develop nature park facilities

Need for this action - Multiple sites have the potential to become a nature park in Missouri City. Nature viewing facilities can also be add at multiple existing parks. Nature park facilities could include nature trails, observation areas, a boardwalk interpretative signs, and bird watching areas. To further enhance the nature park experience, nature play features can be added such as logs or boulders for children to climb on, and an outdoor classroom for educational opportunities.

Potential sites could include the Herrin Track, Independence Park, along the Brazos River, or at Kitty Hollow Park (in conjunction with Fort Bend County). A final location or locations should be identified by City staff and the residents of Missouri City.

Estimated cost range - \$1.5 million to \$2.0 million +/-

Potential Timeframe - Within five years



Amenities in a typical nature park

CHAPTER 6

PRIORITIZATION OF NEEDS AND RECOMMENDATIONS

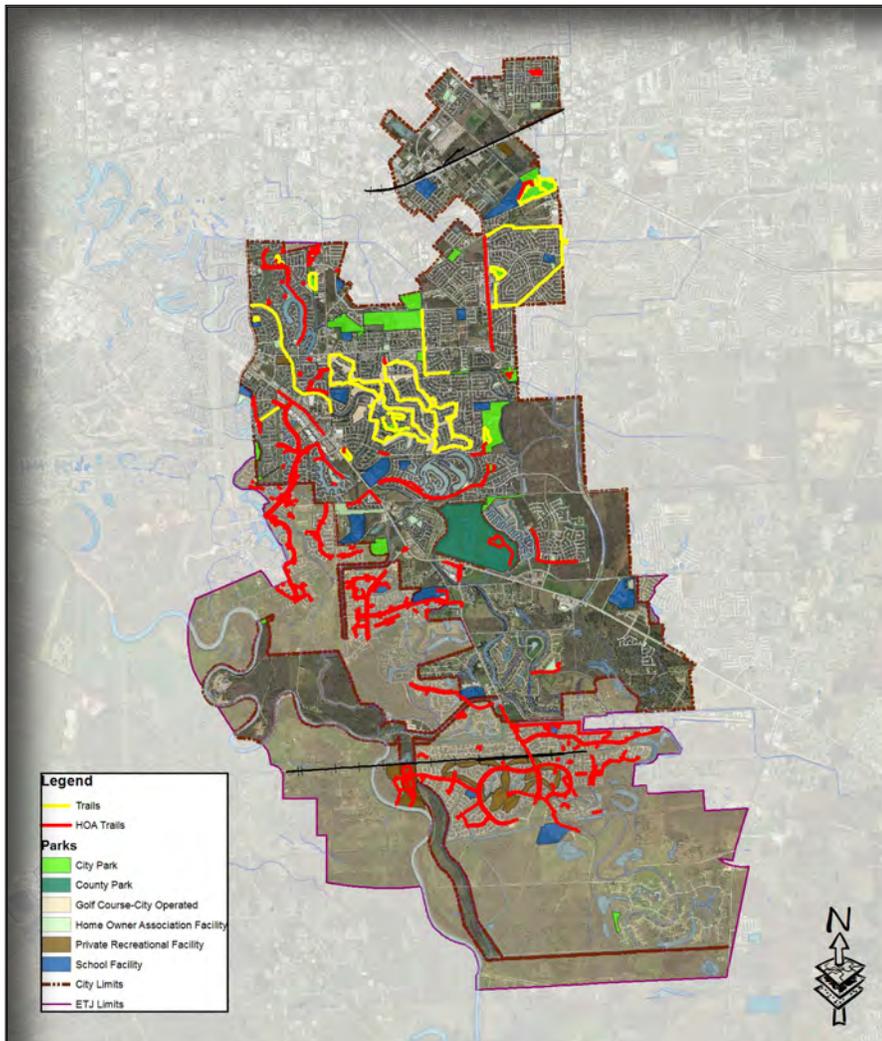
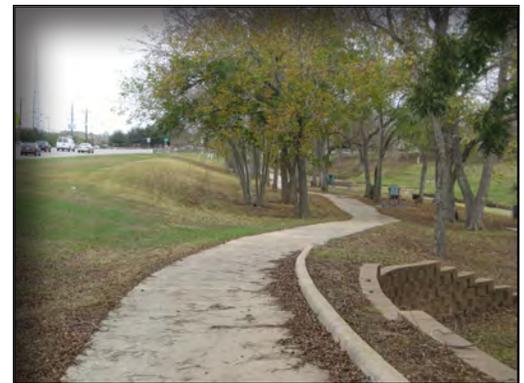
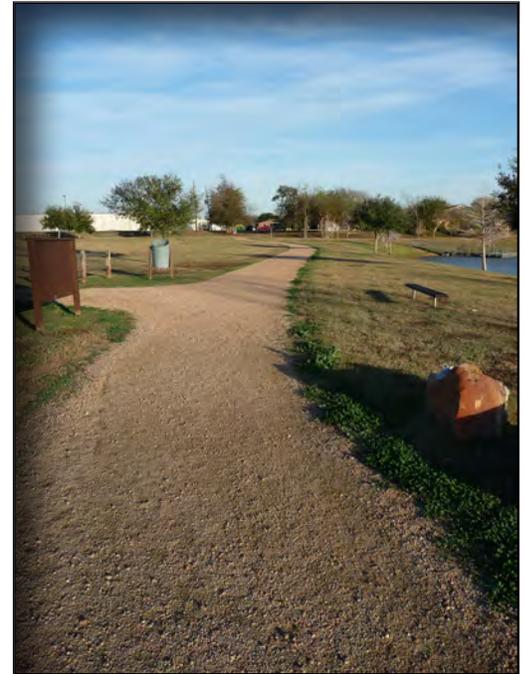
Action 5 - Construct 2 to 5 miles +/- of trails

Need for this action - Walking/hiking on trails was rated the number one top recreation activity for residents in Missouri City, and was the third most important amenity to add to parks (after lighting and shade). Furthermore, the number one reason why residents left Missouri City for recreation was to walk, jog, run or hike on trails in other cities such as Sugar Land and Houston.

The City has recently completed their Bicycle and Pedestrian Mobility Plan. That plan makes recommendations for high priority trail connections and sidepaths, when combined total more than 40 miles. The recommendations of that plan are shown on the following pages. This plan also recommends pursuing the design and construction of at least two to five miles of those trail recommendations over the next five to ten years.

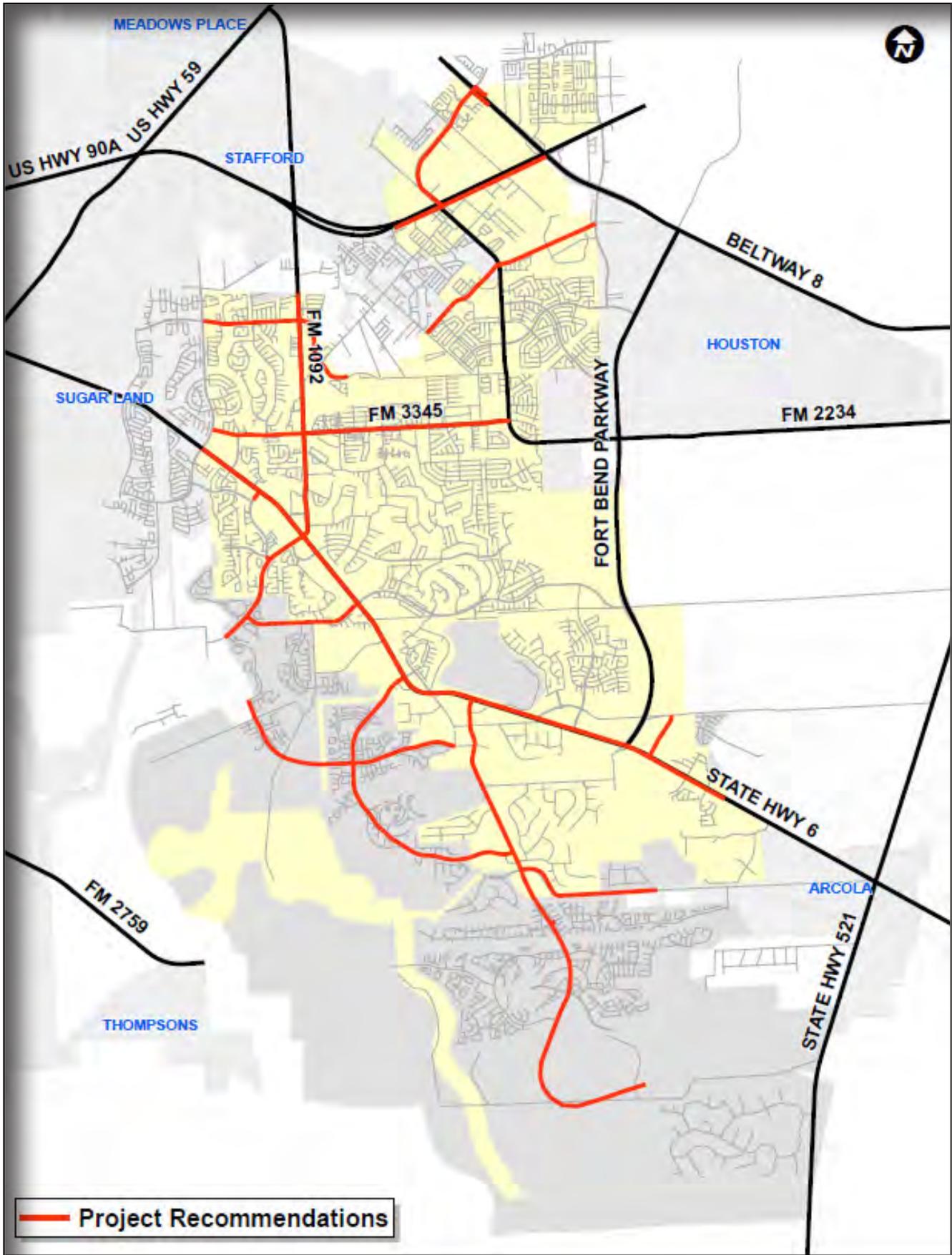
Estimated cost range - \$2 million to \$5 million +/-

Potential Timeframe - Within five to ten years



Existing trails in Missouri City

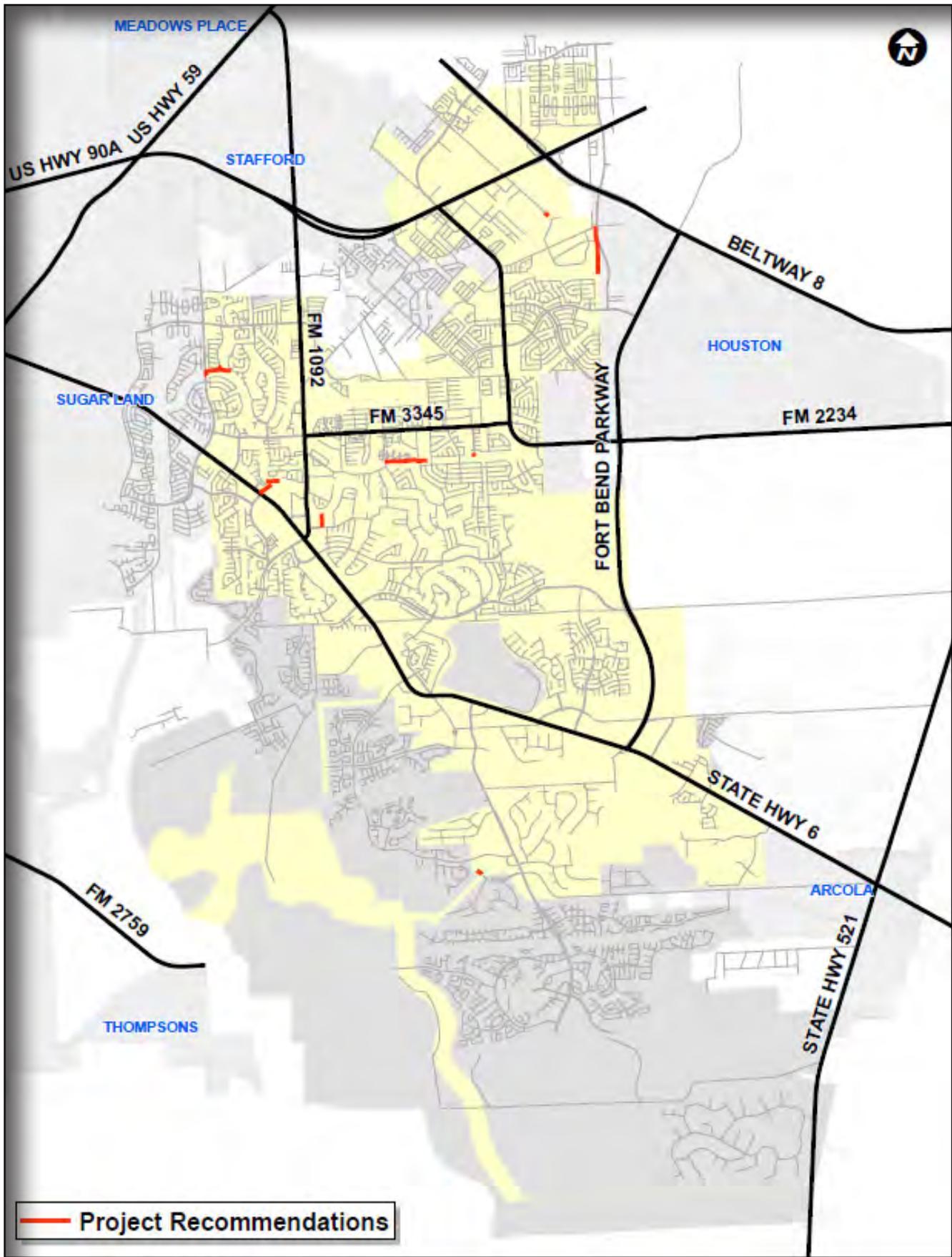
Existing trails in Missouri City



Priority Sidepath Recommendations; source: 2012 Bicycle and Pedestrian Mobility Plan

CHAPTER 6

PRIORITIZATION OF NEEDS AND RECOMMENDATIONS



Priority Trail Connections Recommendations; source: 2012 Bicycle and Pedestrian Mobility Plan



Historic Freedom Tree

Action 6 - Develop and Enhance Freedom Tree Park

Need for this action - Freedom Tree Park has approximately five acres of undeveloped parkland near the center of the City. The park is bisected by Misty Hollow Drive, with the Historic Freedom Tree on the west side and the undeveloped five acres on the east side. The concept master plan for the development of the east side of the park includes a gazebo, picnic areas, amphitheater, playground, walking trails and parking.

Estimated cost range - \$500,000 to \$750,000 +/-

Potential Timeframe - Within five years



Master plan concept for Freedom Tree Park. Source: City of Missouri City

CHAPTER 6

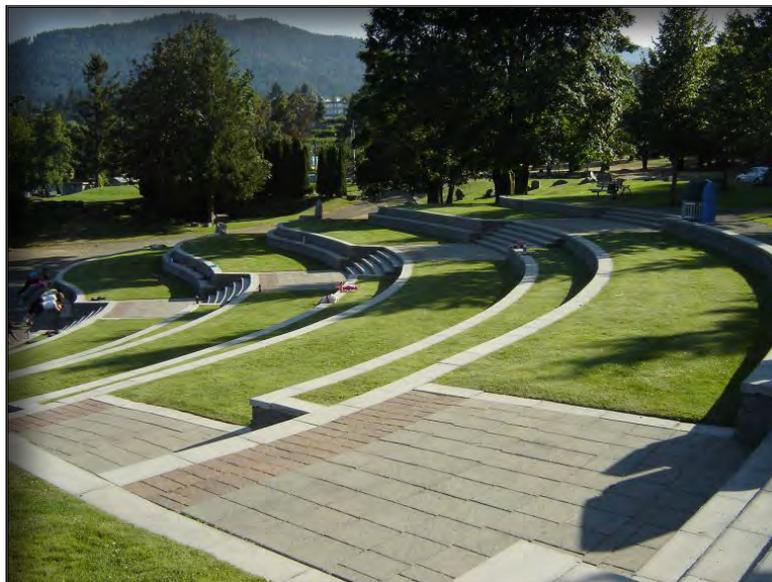
PRIORITIZATION OF NEEDS AND RECOMMENDATIONS

Action 7 - Renovate the amphitheater at Community Park

Need for this action - One of the most commonly requested facilities from citizens during the public input process was an amphitheater and festival/special event area to have community wide events. Renovating the amphitheater at Community Park will help fulfill this need. Renovations include upgraded electrical work, a raised stage area, shade structure, and expanded seating capacity. Additionally, if and when the soccer fields at Community Park are relocated to a different complex, that space can be utilized as a festival area.

Estimated cost range - \$300,000 +/-

Potential Timeframe - Within five years



Examples of similar style and improved amphitheatres

Action 8 - Add 8 to 10 Backstops/Practice Fields within Existing Parks

Need for this action - There is a deficit of backstops and practice fields in Missouri City. This causes the athletic leagues to use the game fields for practice, which leads to the game fields deteriorating faster. Backstops and soccer practice fields should be included in neighborhood parks where feasible, and several practice fields should be included in large community parks. Potential existing parks that could accommodate one to three backstops each include Buffalo Run Park, Hunters Glen Park, Independence Park and Quail Green West Park.

Estimated cost range - \$60,000 to \$120,000

Potential Timeframe - Within ten years and beyond





Action 9 - Renovate Sta-Mo Park

Need for this action - Sta-Mo Park is one of the sports complexes in Missouri City that offers baseball and softball. The park has deteriorate over the years due to minimal maintenance being done. One reason for this is because two of the three leagues that currently use the park are made up of Stafford, Sugar Land and other non-Missouri City residents. This master plan recommends raising the user fee for the fields for non-city residents and leagues to help the City of Missouri City recuperate some of the deferred maintenance costs.

Renovations to Sta-Mo Park that are needed include re-grading and re-sodding the fields as needed, adding a trail around the perimeter of the park, adding one to two playgrounds, upgrades to the restrooms, upgrades to the parking lot (restriping, adding lights, repairing potholes), adding permanent picnic tables near the softball fields, replacing the park sign, and overall improved landscaping and more trees.

The renovations should be done over multiple phases. Phase 1 should include re-grading/re-sodding, adding a perimeter trail, upgrading restrooms and upgrading the parking lot. Phase 2 should include adding playgrounds, adding permanent picnic tables, replacing the park sign and improving the landscaping.

Estimated cost range - \$3 million to \$5 million +/- (total renovations)

Potential Timeframe - Within five to ten years



Existing StaMo Park

Medium and Long Term Priority Recommendations (Outdoor Recreation)



Existing sprayground at Hunters Glen Park.
Photo source: Missouri City Parks & Recreation Department

Action 10 - Add 1 to 2 more Spraygrounds/Splash Pads

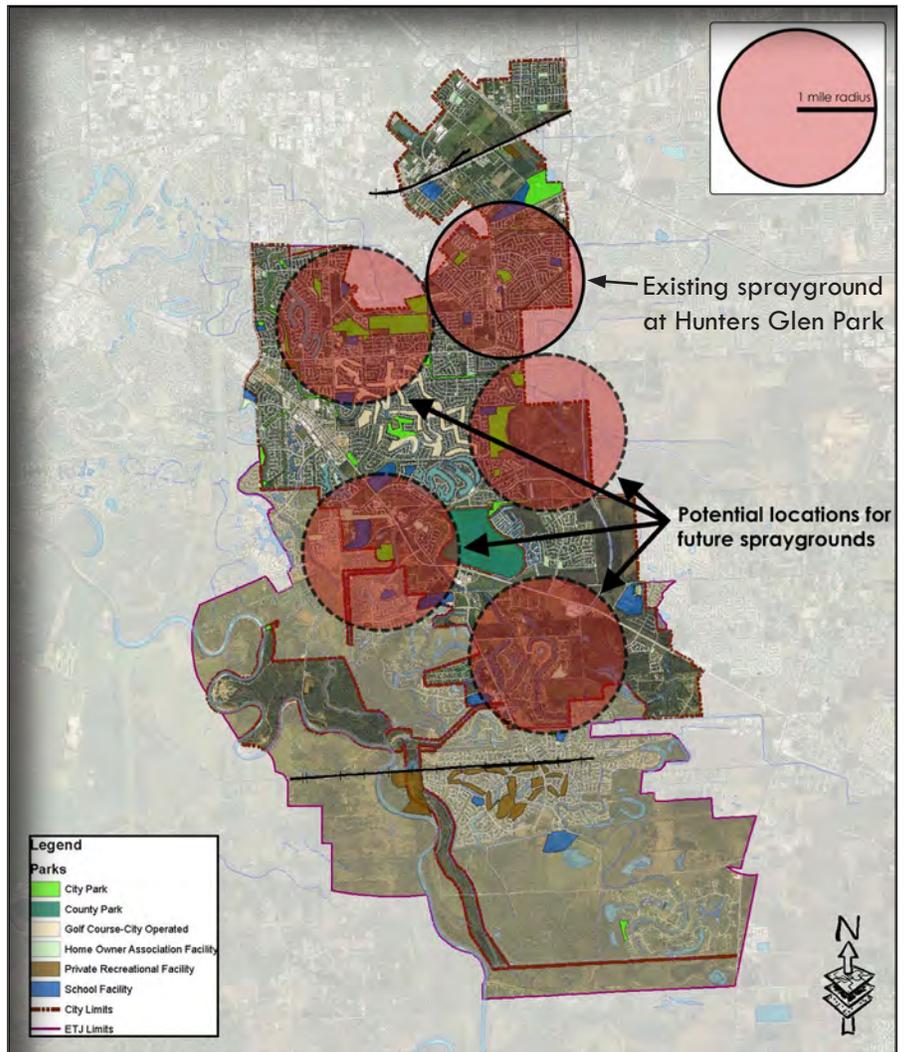
Need for this action - Aquatic facilities were one of the highest priority needs that residents had during the public input process. Spraygrounds follow a trend in many cities, whereby the excitement of water is provided in a safe and clean environment. They provide a lower cost aquatic facility while still meeting citizen needs. One sprayground should be added to each of the three remaining park planning areas over time. Spraygrounds are most popular in parks when located adjacent to family gathering areas. The existing sprayground at Hunters Glen Park is an excellent example of a well placed and highly utilized sprayground.

Estimated cost range - \$450,000 to \$600,000 +/- (per sprayground)

Potential Timeframe - Within five to ten years



Examples of sprayground features



Potential locations for future spraygrounds/splash pads



Action 11 - Improve at least five existing park properties and boulevards with renovations and beautification

Need for this action - Renovations and improvements are needed to existing parks in Missouri City. These improvements are over and above the regular ongoing maintenance. Specific parks to be improved or renovated should be on an as needed basis, and are not specifically targeted in this plan. As funding is allocated, staff will determine the best use of the available funding. Potential uses include the construction or addition of walking trails in the parks, adding park lighting, replace and repair picnic amenities as needs, replacing playground equipment as needed, adding shade structures over playground equipment, planting native grasses and trees to conserve water, adding landscaping and irrigation where appropriate, and improving parking areas.

Estimated cost range - \$500,000 to \$750,000 +/-

Potential Timeframe - Within five to ten years



Park lighting allows for extended park hours - which is a benefit during hot summer months when most people want to use the park after the sun sets.



Shade structures allow for year-round use of playgrounds



Park landscaping enhances the beauty of the entire City.

CHAPTER 6

PRIORITIZATION OF NEEDS AND RECOMMENDATIONS

Action 12 - Expand and Upgrade Community Park

Need for this action - The land to the east of the drainage channel that is currently the boundary of Community Park is undeveloped floodplain land. The City should investigate acquiring a portion of that land to expand Community Park.

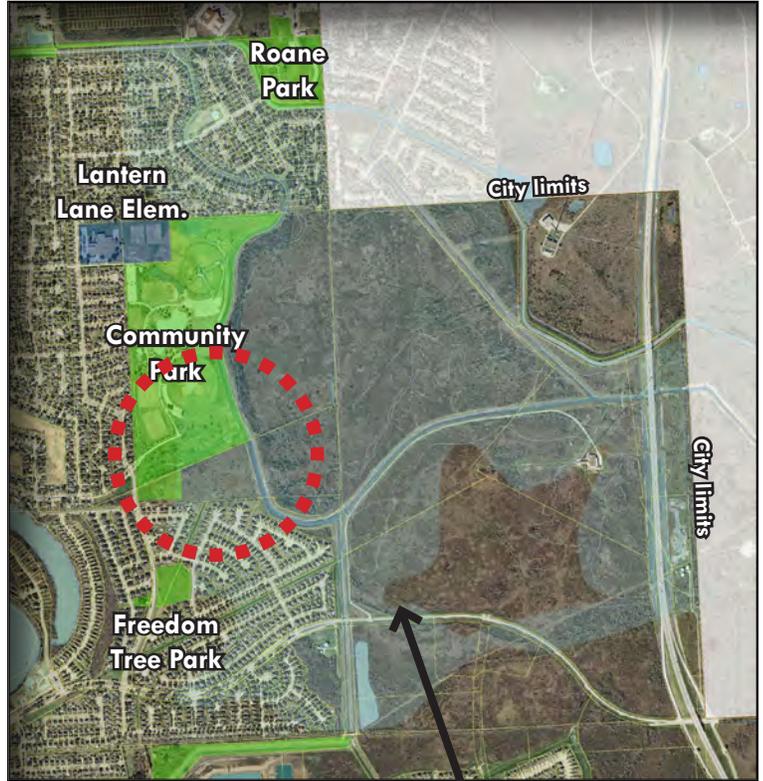
Renovations that are needed to Community Park include: more park lighting, playgrounds near the athletic fields, upgrading the basketball courts, additional parking, a pedestrian bridge to access the east side of the drainage channel, batting cage(s) and pitching cage(s) near the athletic fields, and possibly adding a restroom building near the south end of the park.

With the soccer fields at Community Park being moved to a new complex (Action 2) and the amphitheater being renovated (Action 7), Community Park has the potential to be the City's premier festival and special event park.

Estimated cost range - Land acquisition for 30 to 50 acres = \$750,000 to \$3.75 million +/-

Park renovations estimated cost range - TBD

Potential Timeframe - Within five to ten years



Possible park expansion



Existing basketball court



Example of an upgraded basketball court



Existing Community Park



Action 13 - Add 1 to 2 Dog Parks within Existing Parks

Need for this action - Dog parks are designated off-leash areas and can typically be added to existing community parks. Dog parks were one of the most important amenities to add during the public input process. There is currently only one designated dog park in Missouri City; however, it is at a private HOA park and is not available to all residents. The ultimate goal of this master plan is to have one dog park within each of the four park planning areas in the City. Potential locations for dog parks could be at Independence Park, American Legion Park, Buffalo Run Park, Quail Green West Park or Roane Park.

The benefits of dog parks are running opportunities and socializing, both for the dogs and their owners. Dog parks need to be of a certain size to allow the turf to recover from wear and tear, as well as to absorb animal waste that is not picked up by owners. Water stations and waste dispenser/disposal stations, plus shade for dogs and their owners are features that are important to the overall success of the dog park. Separated fenced areas are zoned for big dogs and small dogs. Location must be well considered in terms of potential noise, odor, traffic and the need for parking.

The fencing for a dog park has to be buried at least one foot in the ground to prevent dogs from digging out. Also, there needs to be two gates the entrance for an exchange gate area - which allows the owner and the dog to enter one gate, remove the leash, then enter the second gate into the off-leash park area. This also prevents dogs from accidentally escaping when someone enters or leaves. Finally, there should be a large maintenance gate on the side to allow for easy access into the dog park area for the mowing crew.

Estimated cost range - \$15,000 to \$35,000 per dog park

Potential Timeframe - Within five to ten years



Separated large and small dog areas



Dog parks with shade and seating for owners are more successful

CHAPTER 6

PRIORITIZATION OF NEEDS AND RECOMMENDATIONS

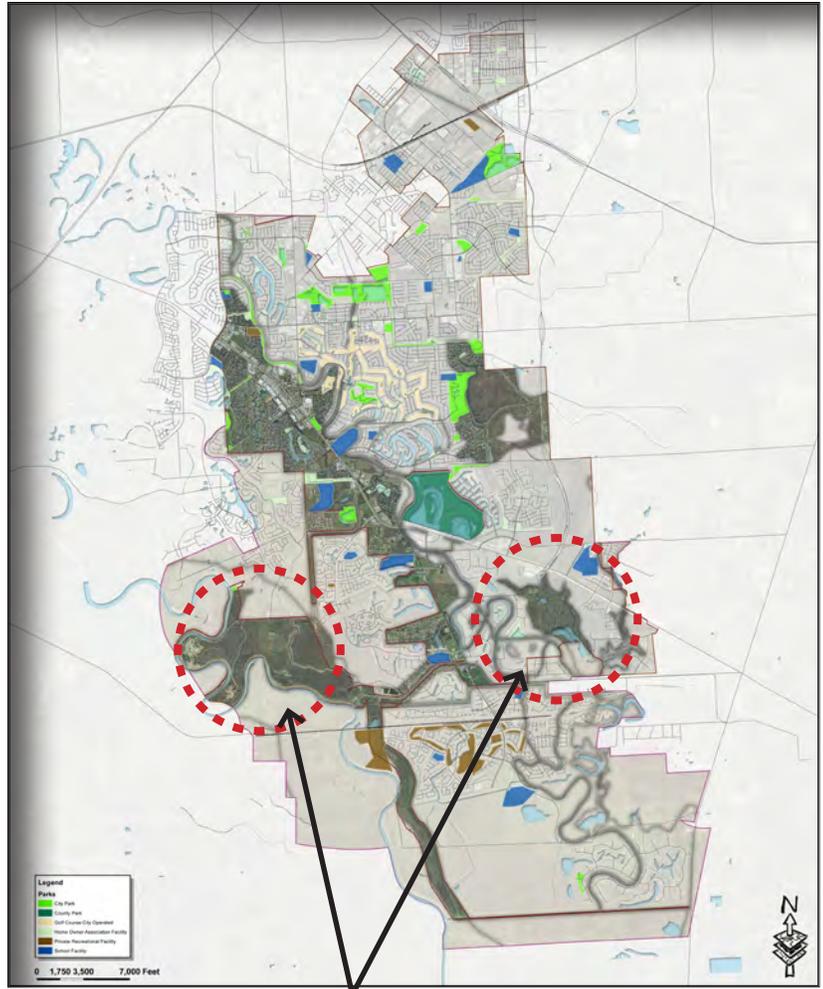
Action 14 - Preserve More Open Space Throughout Missouri City

Need for this action - Open space and natural habitat provides a sense of visual, emotional and psychological relief to citizens. The provision of such land not only includes the acquisition of undeveloped land, but also areas within existing parks where the establishment of native trees, wild flowers and native grasses is encouraged. This in turn allows for activities such as bird watching and nature enjoyment.

The preservation of open space and natural areas also makes economical sense. It has been proven that the value of property adjacent or close to open space often has a substantial premium over the value of property in the same vicinity but not identified with the open space. Every effort should be made to secure the protection of existing natural areas within Missouri City. Many of the potential areas for preservation are along the Brazos River, associated with the creeks and drainage ways, floodplain areas, and areas of topographic change.

Estimated cost range - TBD

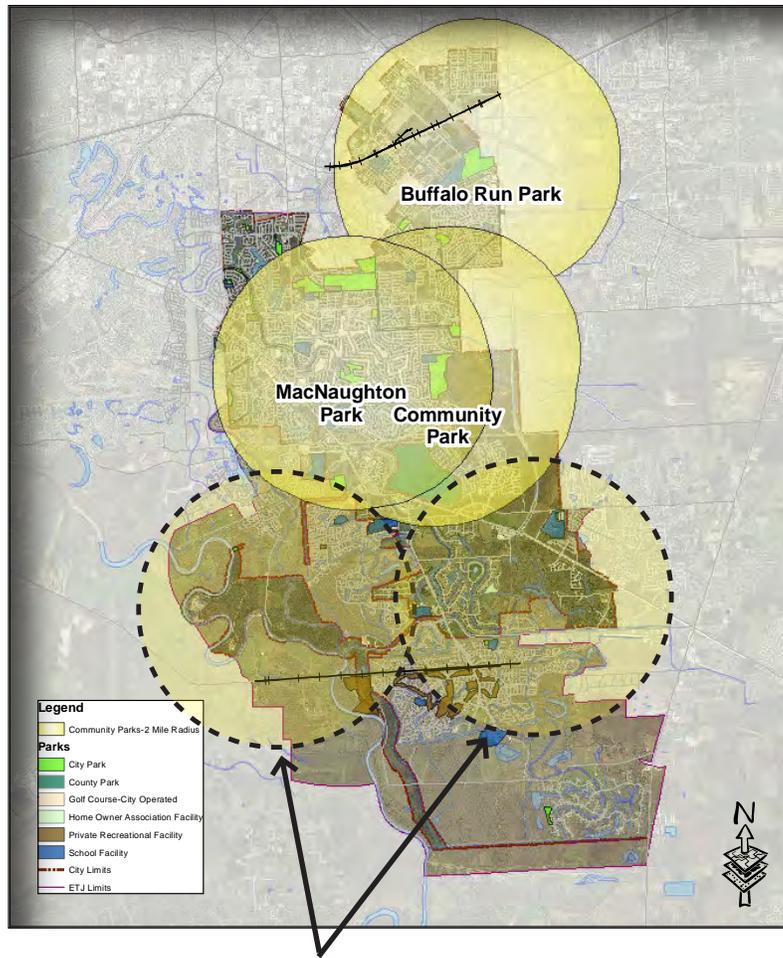
Potential Timeframe - Within ten years and beyond



Potential areas for future open space preservation



Existing areas of open space in Missouri City. Photos source: Missouri City Parks & Recreation Department



Need for community parkland

Action 15 - Acquire land for a future community park

Need for this action - Currently Missouri City has a deficit of larger community parks. Furthermore, the existing community parks are located in the northern half of the City. Acquisition of parkland is needed for a community park in the southern and eastern portions of the City. While land acquisition is a priority, development of the park might not be needed for an additional ten years or beyond.

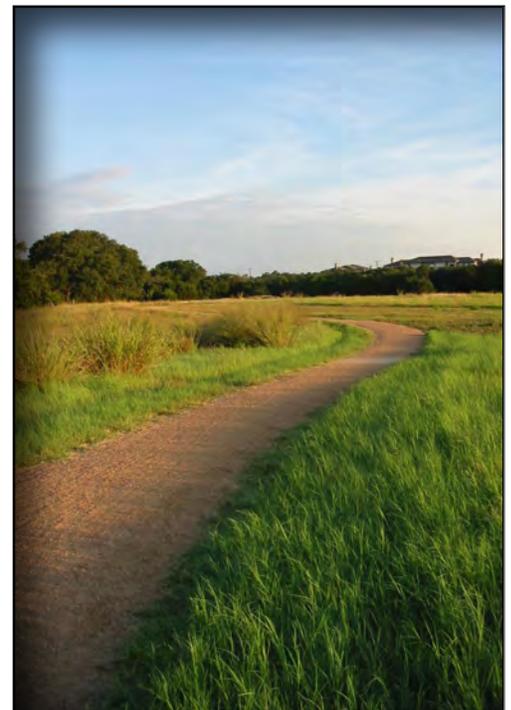
The site should be used for active and passive recreation. The community park should incorporate natural areas as well as programmed space for picnicking and/or athletics. The ability to expand or reprogram the park in the future should be considered. Therefore, approximately 30 to 50 acres is needed.

Longer term development of the park could include athletic fields, special event areas, nature areas with a possible nature center, playgrounds and picnic areas, trails, and special use amenities such as disc golf, fishing piers, sand volleyball courts, exercise stations or community gardens.

Estimated cost range - \$750,000 to \$3.75 million +/- for land acquisition only

Potential Timeframe - Within ten years and beyond

Typical amenities that could be offered in a community park



CHAPTER 6

PRIORITIZATION OF NEEDS AND RECOMMENDATIONS

Action 16 - Improve at least five existing parks with renovations and beautification

Need for this action - The continued renovations and improvements to existing parks are needed. Again, the specific parks to be improved or renovated should be on an as needed basis, and are not specifically targeted in this plan. As funding is allocated, staff will determine the best use of the available funding. Potential uses include the construction or addition of walking trails in the parks, adding park lighting, replace and repair picnic amenities as needed, replacing playground equipment as needed, adding shade structures over playground equipment, planting native grasses and trees to conserve water, adding landscaping and irrigation where appropriate, and improving parking areas.

Estimated cost range - \$500,000 to \$750,000 +/-

Potential Timeframe - Within ten years and beyond



Park lighting allows for extended park hours - which is a benefit during hot summer months when most people want to use the park after the sun sets.

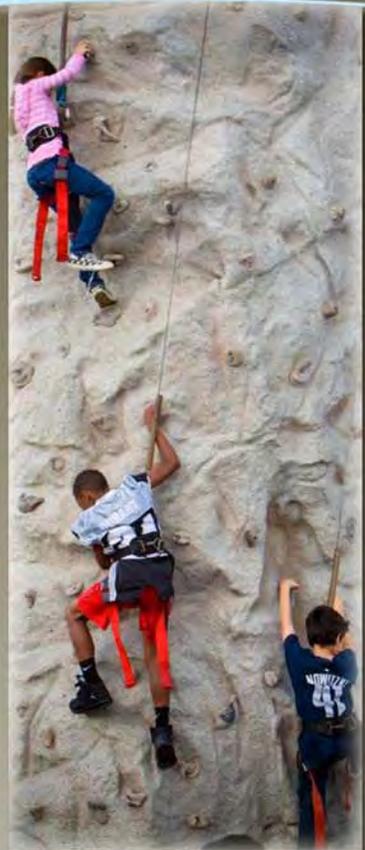


Shade structures allow for year-round use of playgrounds



Strategically placed park landscaping enhances the beauty of the entire City.

Implementation Strategy



Implementation Introduction

The park and recreation needs of Missouri City are described in the previous chapters of this master plan and a series of actions are given to begin addressing those needs. These actions are recommendations to guide the Missouri City Parks and Recreation Department staff, the Parks Board, and the City Council over the next five to ten years, and should be revisited and updated on a regular basis.

Prioritization Criteria - The recommended prioritization is based on information received from public input, as well as from the needs assessment formed from facility and acreage standards. The criteria used to prioritize the park facility needs of Missouri City are as follows:

- Level of need based on citizen input (online survey results, stakeholder interviews, public meetings, etc.)
- Level of need based on needs assessment
- Conditional assessment of existing park facilities in the City

The table below summarizes the key priority needs. Needs meeting all of the criteria were ranked as very high priority elements and are to receive the highest level of attention over the next five to ten years. The top actions over the next ten years that the City of Missouri City should accomplish are shown by the action plan on the following pages.

TABLE 19 - SUMMARY OF PRIORITY NEEDS IN MISSOURI CITY	
<p>Additional facilities needed based on citizen input</p> <ol style="list-style-type: none"> 1. Hike and bike trails 2. Dog parks (off leash areas within parks) 3. Preserved open space and natural areas 4. Large community park with a variety of activities (festival/event area and sports fields) 5. Splash pads/spraygrounds 	
<p>Additional facilities needed based on level of service</p> <ol style="list-style-type: none"> 1. Practice fields 2. Community parkland 3. Softball fields 4. Splash pads/spraygrounds 5. Baseball fields 	<p>Upgraded facilities needed based on existing condition</p> <ol style="list-style-type: none"> 1. Picnic tables, benches, BBQ grills 2. Playgrounds 3. Park restrooms 4. Sports fields at Sta-Mo Complex 5. Basketball courts
<p>Top 10 Cumulative Outdoor Facility Needs Based on Above Summaries</p> <ol style="list-style-type: none"> 1. Connected hike and bike trails 2. Acquisition of community parkland 3. Practice fields/backstops 4. Dog parks (off-leash areas within parks) 5. Athletic fields for softball, baseball and soccer 6. Festival/special event area/amphitheater 7. Preserved open space/natural areas 8. Aquatic facilities - splash pads/spraygrounds 9. Skate park 10. More shade structures and trees 	<p>Top 5 Cumulative Indoor Facility Needs Based on Above Summaries</p> <ol style="list-style-type: none"> 1. Construct a second gym at the Recreation Center 2. Renovate Community Center building 3. Construct an electronic sign to advertise programs and events 4. Offer more fitness classes such as yoga, Pilates, Zumba, Jazzercise, etc. 5. Extend morning hours at the City Recreation Center



High Priority Facilities - Outdoor

1. Connected hike and bike trails - Missouri City has many trails along the creek and drainage corridors, and many looped trails within parks. Following the recommendations of the City's previous trail planning efforts, more trails need to be added to link together all parks, schools, neighborhoods, retail areas, civic facilities and other destinations in the City.

2. Acquisition of community parkland - Keeping in mind that parks are a critical component of how a city is perceived, land acquisition should not always target the least expensive piece of land. Rather, the specific needs of the area, the citizens the park will serve, and the natural characteristics of the site should all be considered when land is acquired for park use. Land is a finite resource, and efforts to acquire community parkland today at a lower cost will pay off in the future. If the location of a future park is known, then the development of an entire neighborhood can be planned around it.



3. Practice fields/backstops - There is a significant deficit of practice fields and backstops in Missouri City which causes the athletic leagues to practice on the game quality fields. This leads to the game fields deteriorating much faster. Backstops and practice fields should be included in neighborhood parks, and a cluster of practice fields should be included in larger community parks where feasible.

4. Dog parks - Dog parks were one of the most commonly requested amenities from residents during the public input process. There are two existing dog park in Missouri City, one at a private HOA park and a second at Kitty Hollow County Park. Dog parks usually contain double entry/exit gates, separated by an intervening area. This helps prevent dogs from accidentally escaping when someone enters or leaves. Fenced areas are commonly zoned for big dogs and small dogs. The location of dog parks must be well considered in terms of potential noise, odor, traffic and the need for parking.

5. Athletic fields - Additional baseball and softball fields will be needed as the City continues to grow. New facilities should be added to any future community parks throughout the City. Renovation to the existing fields at Sta-Mo Park is also needed. Soccer fields will also be needed as the City continues grow, especially since soccer is one of the fastest growing sports in the region. A new soccer complex is needed so that the soccer leagues have one central location for games and tournaments.

6. Festival/special event area and amphitheater - Festivals and special events are a way for a city to market itself. Having annual signature events not only strengthens the citizens bond with their community, it also allows for visitors to experience a community at its best. Having a premier amphitheater and festival area will allow for multiple events to take place throughout the year.



Photo source: Missouri City Parks & Recreation Department

7. Preserved open space/natural areas - Through objective public participation efforts, many cities have learned about the strong need that most residents have to experience natural habitat and natural areas. However, some cities have never considered acquiring land for preservation purposes partly because it is not programmed space. However, land with no particular program may fulfill the function of wildlife habitat and flood control. If managed correctly, such land typically requires the least amount of maintenance.

8. Spraygrounds/splash pads - Spraygrounds provide a lower cost aquatic facility to residents. The premise of spraygrounds is that they provide the excitement of water in a safe and clean environment. Spray nozzles, drop bucket and other features either regularly or intermittently spray and/or drop

water on children excited with expectation. The water is collected directly in surface drains from where it is circulated. The location of a sprayground is important as to minimize leaves or other debris that could possibly clog the drain system.

9. Skate park - Skate parks are quickly becoming one of the most popular amenities in cities. They provide a designated, appropriate and relatively safe place for youth and young adults to skate. Often times skate parks are designed to accommodate skateboards, in-line skates, and BMX bikes.

10. More shade structures and trees - One of the most needed amenities in parks is shade, both in terms of shade structures and trees. One goal for the City should be to create a playground shading program to install shade structures in one to two parks each year over the next decade. Any new parks that are developed in the future should include shade structures as a standard amenity. Another goal the City could consider is planting 15 to 25 trees per year in parks over the next ten years.

High Priority Facilities - Indoor

1. 2nd gym at the Recreation Center - Adding the proposed second gym to the existing Recreation Center will allow for multiple recreation opportunities to occur simultaneously. The existing center is heavily used and increased demand among residents warrants expansion and a second gym.

2. Renovation and expansion of the Community Center - The current Community Center building is older and in need of minor renovations and expansion. Expansion of the center will allow for larger events and for the programming to increase.

Action Plan

The Action Plan is the basic actions and tasks required in order for the City of Missouri City to reach the target goals for the parks and recreation system. It maps out the immediate tasks at hand. Consider the following notes when reviewing the Action Plan:

- **Sequence** - The sequence is based directly on the recommended importance and need for each action. However, some actions may take longer to occur. In that case, other actions may be easier to accomplish sooner, but should not diminish the need for higher priority actions.
- **Funding possibilities** - The sale of certificates of obligation may generate funding, such as a Quality of Life Bond. The Action Plan is a guide, but may vary as specific needs or opportunities occur within the City. Other potential funding sources are noted in the table, but are not secured. Rather, they should be considered as possibilities to also pursue.
- **Projected costs** - The projected costs per item are intended to establish an order of magnitude cost range. These estimates are made prior to any designs or detailed concepts being developed, and will vary as more detailed design occurs. Costs that are shown are also pre-design, and are based on staff and consultant experience with similar types of facilities and efforts. All costs include an escalation factor, assumed to be in the range of 3% per year.
- **Suggested timeframe** - The suggested timeframes are approximate and are intended to establish a sequence for all actions. The timeframe of each recommended priority is based on **High Priority** (within the next five years), **Medium Priority** (within five to ten years) or **Long Term** (ten years and beyond). Note that the prioritization in this master plan is intended to guide staff, Parks Board, and City Council, and any item may be initiated sooner than recommended if unique circumstances or opportunities arise.



Funding Strategies

Different parks and recreation facilities will require different funding strategies. While small improvements to existing parks and most trails can be built with local funds, other parks, open spaces and large facility projects may be able to contend for federal or state funds. This section provides brief descriptions of these funding implementation assistance opportunities.

Key City Generated Funding Sources

General Fund Expenditures - General fund expenditures are primarily used for operations and minor improvements.

Municipal Development District (MDD) - Sales tax revenue is used to fund a variety of infrastructure needs throughout many cities in Texas. Allocations in future years may be used to address needs identified in this parks master plan.

TIRZ Districts - Establishing a TIRZ district allows for the property tax revenue generated in that district to be used to fund public improvements. The City currently has three TIRZ district areas. If feasible, explore the use of TIRZ funds to address needs identified in this master plan that are within these districts.

Voter Approved Bond Funds - The City is currently pursuing a parks and recreation bond package for 2014 that will fund most of the high priority recommendations of this master plan.

Park Facility Funding Through Parkland Dedication Ordinance - This ordinance provides some lands and/or funding for the development of neighborhood parks throughout the City in new residential developments. This type of ordinance is discussed further in the Ordinance Section of this Chapter.

Sales Tax Revenue - Sales tax revenue from the city's 4B fund can be used for community facilities such as parks, trails and recreation buildings, subject to approval by voting by the citizens of Missouri City. While each project or group of projects would have to be approved by citizen vote, this option should be considered for projects with significant community-wide benefit. Recreational features with significant impact on quality of life will make Missouri City a much more attractive and economically viable location to live, work and play.

Key Grant Funding Sources

Grants can provide a significant source of additional funding for parks, but should not be considered as the primary source for park construction.

Texas Parks and Wildlife Department - Texas Recreation and Parks Account (TRPA) is the primary source for parks grants in Texas, and in addition provides funding for recreational trails. Up to a 50 percent match can be obtained, up to \$500,000 for new parks and trail facilities. Grant applications that stress joint funding and support from two or more local entities may have a greater chance of contending for the TRPA grants. These grants are highly competitive, and in recent years there have been far fewer grants available or awarded due to State budget restrictions. When the grants are available, the typical deadline to submit an application is March 1st and August 1st every year.

Land and Water Conservation Fund (LWCF) - This fund is divided into two funding categories: state grants and federal acquisition. The state grants are distributed to all 50 states, DC, and other territories based on factors such as population. State grant funds can be used for park development and for acquisition of parkland or easements.

Statewide Transportation Enhancement Program - This program provides monetary support for

transportation activities designed to strengthen the cultural, aesthetic and environmental aspects of the transportation system. Typically, funds can be used for trails and streetscape related projects. Funding is on a cost reimbursement basis, and projects selected are eligible for reimbursement of up to 80% of allowable costs. This funding program is not available on a yearly basis, but intermittently only, often in two to five year periods. A deadline for a submission was late last year, so the next opportunity for funding under this program is unknown at this time. These funds, while difficult to work with, are becoming more responsible to real world costs, and should be seriously considered since they remain one of the few sources of outside funds.

Indoor Recreation Grants – These grants are available to local governments for the construction or renovation of indoor recreation facilities. This assistance is in the form of 50% matching grant funds up to \$750,000. Local governments must apply, permanently dedicate the building for public recreational use and assume responsibility for operation and maintenance. This grant program is currently suspended, and funding amounts may be limited over the next few years.

Recreational Trails Program (RTP) – These funds can be spent to construct new recreational trails, improve/maintain existing trails, develop/improve trailheads or trail side facilities, and acquire trail corridors/easements. It is a cost reimbursement program. Projects may range in total cost between \$5,000 and \$100,000.

Environmental Protection Agency – The EPA can provide funding for projects with money collected in pollution settlements, or with funding targeted at wetland and habitat preservation or reclamation.

Foundation and Company Grants – These can assist in direct funding for projects, while others exist to help citizen efforts get established with small seed funds or technical and publicity assistance.

Grants for Greenways – This is a national listing that provides descriptions of a broad spectrum of both general and specific groups who provide technical and financial support for greenway interests.

Partnering with Volunteer Groups – Partnering with volunteer groups can be helpful when constructing trails or playground equipment. Their effort can be used as part of the required match for many grants such as the Recreational Trails Program. There are a variety of sources for volunteers including: user groups, local residents, corporate community service initiatives, and business and civic support groups.

Parks Foundation - Parks foundations are non-profit organizations and another source for volunteers. People can make tax deductible donations to a foundation, which in turn provides financial support and volunteer time to a city's parks system. Parks foundations often assist with physical improvements to a park or support recreational programming. They essentially help fill the gap between what needs to be done and what a parks department can afford to do.



Policies and Ordinances

Parkland Dedication Ordinance - Missouri City currently has a Parkland Dedication Ordinance to assist in the implementation of neighborhood parks in new areas of the City. This type of ordinance is used by many cities, and is now generally not considered onerous by the development community, but rather is welcomed as a method to help fund smaller parks in a timely manner. The City's Parkland Dedication ordinance provides an important mechanism to ensure that adequate parkland is available when new development occurs. The current ordinance is clear and concise in its language, and is easy to follow and understand. Based on current trends in comparable cities throughout Texas, the following refinements are recommended.

- The current ordinance reads that cash in lieu of land that is received by a development can only be used for acquisition or improvement of a neighborhood park located within the same park zone as the development. The City should consider revising the ordinance for all future cash in lieu of land that is received to be used within the same park planning area. This will allow the City more flexibility to distribute the monies and make needed improvements to existing parks. As it stands now, many of the park zones only have one or two parks within them, and no available land for acquisition of a future park. This severely limits the City's ability to use the parkland dedication fund.
- One provision that many cities in Texas are making to their parkland dedication ordinances is adding a park development fee. This fee is in addition to the land or cash in lieu of land that is dedicated. The fee is then used to develop the parkland that is required to be given to the City by the developer. Typically this fee is calculated based on the number of dwelling units, such as \$500 per dwelling unit.

Landscaping Ordinance - Establishing a landscaping ordinance in Missouri City can contribute to the beautification efforts throughout the City.

Trail Development Ordinance - A trail development ordinance is usually a component of a Parkland Dedication Ordinance. Similar ordinances have been enacted in other cities in Texas, and have proven successful in helping to get trails constructed. Often the city will fund regional trails and trailhead development, then require complete developer construction of key trail segments that fall within their property limits. Credits for landscaping, pavement, or other infrastructure elements could be given in return for trail construction outside of the City's Trails Master Plan. A central point to consider is that most developments will add trails automatically; therefore, such a mandatory trail development ordinance only serves to create a level playing field between the many developments that include trails and those that will build them only if required to do so.

The current ordinance does not account for trail dedication, although the City can legally require this dedication and construction as a part of the transportation system. This is particularly true if just requiring the trails be located in a pedestrian access easement rather than as a full right-of-way taking.

Joint Planning with Fort Bend ISD - Establish joint planning review sessions with Fort Bend ISD schools to allow for coordination of facilities and possible pooling of resources for partnership in acquiring land for schools and parks.

Operations and Maintenance

With the recommendations of additional parks, recreation facilities and trails, it should be recognized that additional manpower is needed for the required maintenance of these various projects. The number of additional staff needed to attend to these proposed facilities will vary depending on the use of these facilities. The provision of adequate staffing must be included as each facility is developed or the facility should not be built.

As the park system grows, additional maintenance resources should be provided to the Parks and Recreation Department. This includes new mowing and transporting equipment, as well as park maintenance staff. Over the next ten years, as new facilities are added, park maintenance staff should grow at the same rate.

Sustainability Approach to Maintenance

Often parks and recreation agencies are the single largest landowner in a city or community. As such, stewardship of the community's natural resources and recreation amenities is a key parks department responsibility, all the while managing the conscientious expenditure of tax dollars. According to the National Recreation and Park Association (NRPA), "Good stewardship requires management practices that protect and enhance the recreational, environmental, social and cultural values of public lands and natural and cultural resources in a manner that is cost-effective and sustainable for future generations."

The role of the Missouri City Parks and Recreation Department in the conservation of natural and recreation resources, while implementing "Sustainability" in its approach to resource management, not only contributes to the health and welfare of its residents, it also reduces operations and maintenance costs, particularly for mowing and irrigation.

The sustainability approach to natural resource management is not only an environmentally sensitive management strategy - it is "Good Business" for the City and its residents.

What is Sustainability? - Sustainability can be defined as the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs. Basically, sustainability embraces a stewardship approach that conserves our natural resources for use by future generations. These natural resources include:

- Clean water
- Clean air
- Nutrient rich topsoil
- Wildlife habitat
- Trees and vegetation
- Harnessing of wind and solar energy to reduce the use of fossil fuels

The Missouri City Parks and Recreation Department is responsible for the care and maintenance of approximately 749.02 acres, throughout the City in 38 park locations. To provide the highest level of park and recreation facilities and amenities, while maintaining these facilities in the most cost-effective manner, the Parks and Recreation Department will implement a sustainability based approach to park development and maintenance. This approach includes:

- Planting native tree and grass species that are water conserving and hardy to the regional climate. This approach will encourage the "greening" of parks, while limiting the amount of long-term maintenance required to achieve attractive facilities.



- Developing active areas in parks and greenways that will be maintained to levels dictated by the intended use. For example, high intensity use areas such as athletic facilities or playgrounds, will have a higher degree of maintenance and cultivation. On the other hand, areas that are less used or do not require a high level of care, such as disc golf courses or open play areas will receive a less frequent or less intensive maintenance.
- Planting more trees in parks in mass plantings rather than lines or rows to create more shade, bird habitat, rainfall absorption and summer cooling effect.
- Planting native grasses and wild flowers in peripheral areas of parks and in park sites that are planned as natural or habitat areas. These areas will only need to be mowed once or twice per year, and rarely fertilized, reducing maintenance costs.
- Provide beds of native and drought tolerant ornamental shrubs and perennial plants for color in “high-impact” areas such as park entrances. These beds can be mulched with recycled “green waste” such as Christmas trees, chipped branches and dead trees, and lawn clippings to help the soil retain moisture and reduce irrigation demand.
- Creating urban/community gardens in designated parks to encourage cultivation of healthy and affordable food, while enhancing the sense of community in the adjacent neighborhoods.
- Changing irrigation practices to water only those areas that are designated as “high intensity use” areas, such as playground and adjacent picnic areas, designated sports practice fields, and athletic facilities that host league play. This approach will conserve water and reduce costs by discouraging turf growth except in priority locations.
- Implementing drip irrigation for ornamental planting beds.
- Implementing temporary drip irrigation systems for new tree plantings, which will be decommissioned after a three year establishment period.
- Implementing the use of treated effluent at areas where direct human contact can be managed.

Master Plan Updates

The Missouri City Parks and Recreation Master Plan is a guide to be used by the Missouri City Parks and Recreation Department to address system needs over the next ten years. However, during that timeframe, there will be changes that occur. The area population may increase more rapidly than projected, the community may indicate a special need for a facility not listed in the recommendations, or development of some of the recommendations listed in the master plan will occur.

A review and update of this plan by city staff and the Parks Board should be conducted on an annual basis, or when significant changes occur. These updates can be published in short report format and attached to this master plan for easy use. Four key areas for focus of these periodic reviews are as follows:

- **Facility Inventory** - An inventory of new or updated city-owned facilities should be recorded. This inventory should also mention any significant changes or improvements to Fort Bend ISD schools, Fort Bend County Kitty Hollow Park, or major private facilities/HOA facilities that could influence recreation in Missouri City.
- **Public Involvement** - As mentioned previously, this master plan reflects current population and attitudes expressed by the citizens of Missouri City today. However, over time, those attitudes and interests may vary as the City changes. Periodic surveys are recommended to provide

a current account of the attitudes of the citizens, and to provide additional direction from the public on issues that may arise. In order to make an accurate comparison of the changes in attitudes, it is recommended that future surveys include similar questions to those included in this master plan.

- **Facility Use** – Facility use is a key factor in determining the need and renovation of additional facilities. Updates on league participation should be incorporated each season with data from each association. Changes in participation of those outside the city limits, as well as the citizens of Missouri City, should also be recorded.
- **Action Plan** – As items from the action plan in this document are implemented, updates should be made to the prioritized list to provide a current schedule for city staff and elected officials.

Conclusion - Making a Good Parks System Great

Missouri City's park system is in good condition. Many key deficiencies found in other communities in the areas of land acquisition, athletics, and access to parkland have been addressed over the past few years in Missouri City.

Key needs remain in the areas of addressing trails, specialized recreation facilities (such as sand volleyball courts, dog parks, skate parks, splash pads, etc.), indoor recreation, park development needs triggered by future growth, and open space preservation. All of these are high visibility features that will make Missouri City an even more attractive place to live.

A final key area to address revolves around the renovation and enhancement of existing parks. Like any capital asset, whether public or private, deterioration due to aging and keeping up with current trends is a constant. Renovation of existing parks needs to be accelerated to keep ahead of the aging curve. One example is that playgrounds need to be replaced every 10 to 15 years.

Expenditures for parks are extremely worthwhile investments. Missouri City can be known not only as a good place to live and work, but as a great place with a high quality of life. These investments, when compared to the cost of other public infrastructure, are often not very high and yet do so much to enhance the image of the City. These investments can have a very real economic and job creation impact by attracting and retaining new industry, employers and residents to the City.

This is one area in which Missouri City has the opportunity to become exceptional, and to be recognized throughout Texas and the region. It is time to take Missouri City's parks system from good to great.



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