



Understanding what the community wants and needs for its parks, recreation, and open space system is a critical component of this planning effort. Determining this information starts with a comprehensive analysis of the existing system, evaluating where the City stands today and comparing it with the desired vision for the future.

The assessment of system needs is derived using a three-tiered analytical process, including an evaluation of acreage and facility level of service standards, community input on key needs and desires, and an identification of available man-made and natural resources that offer opportunities to expand, diversify, or connect the system.

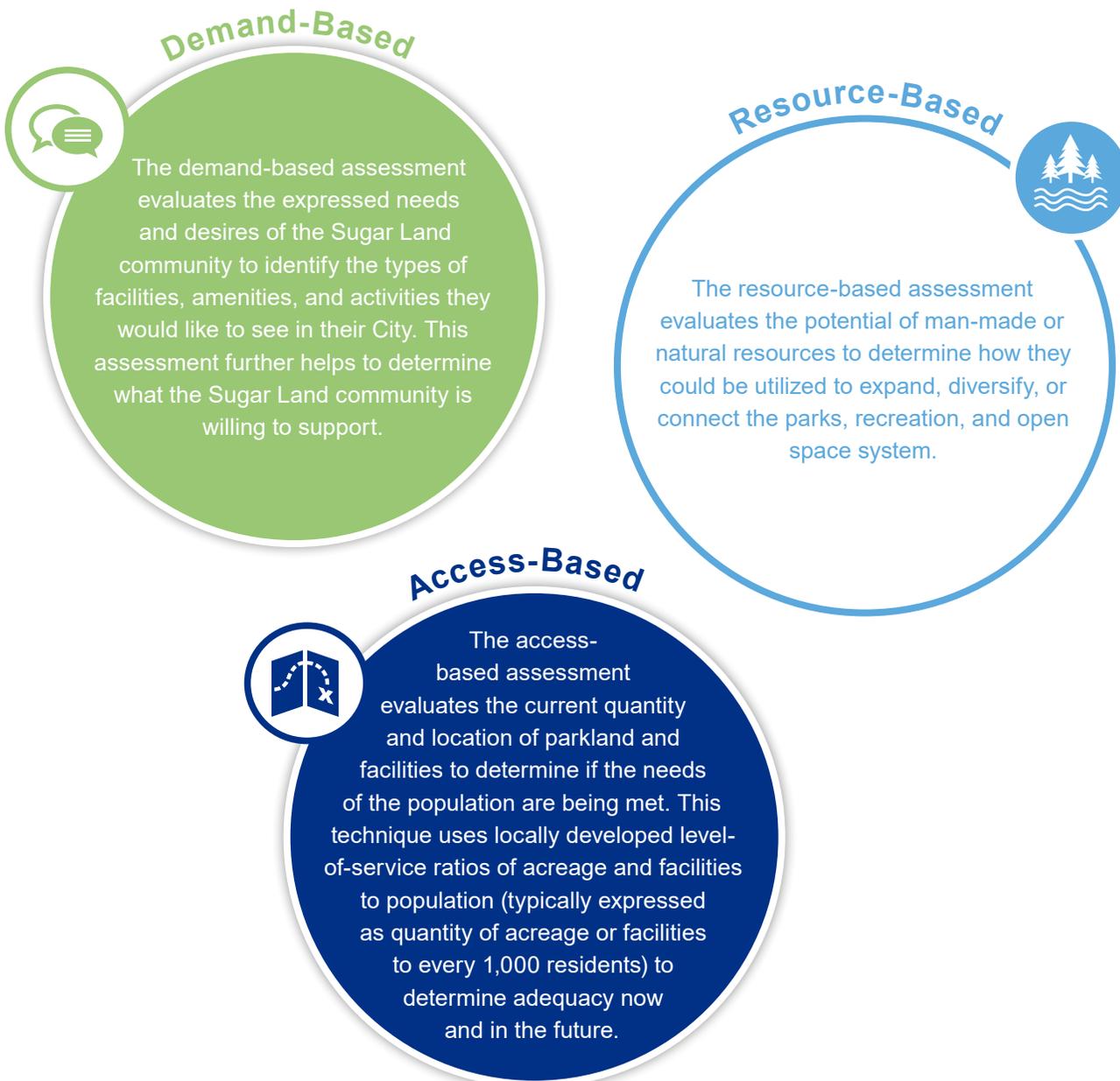
While each of these three assessments are important in their own regard, together, they provide a comprehensive understanding of the types of parks, facilities, amenities, and programming which are most needed and desired in Sugar Land. Moving forward, the identified needs provide the basis for the recommendations which are detailed in the next chapter.

Assessment Framework

The evaluation of Sugar Land’s current and future park and recreation needs uses a multi-faceted assessment strategy which is supported by the Texas Parks and Wildlife Department for the evaluation of local park master plans. The three assessment techniques are described in Figure 4.1, *Needs Assessment Framework*.

Together, the combined results of the assessment offer an objective insight into what types of parkland, facilities, and amenities are most needed and desired in the City. By evaluating quantitative data (e.g., parkland acreage), qualitative information (e.g., condition of existing facilities), and feedback from the public, the needs identified through this assessment are determined to best represent the key park and recreational needs of the City.

Figure 4.1, Needs Assessment Framework



Demand-Based Assessment

First and foremost, this Plan seeks to identify and meet the public demand for parks and recreation opportunities in Sugar Land. Identifying the wants and needs of residents allows the City to plan accordingly in order to best serve the community. 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 residents would like to see their funding targeted.

As a follow up to the detailed description of public engagement results presented in Chapter 2, *Understanding the Community*, the demand-based assessment provides an overview summary of the preferences voiced by residents as they relate to identifying needs for new, improved, or diversified parks and recreation amenities and programs. Where use data is available, the demand-based assessment is based on the actual level of use of parks and recreation programs.



A demand-based needs assessment evaluates the needs and desires expressed by residents, such as the desire for additional senior programming.

Recreational Programming

There can be no doubt, Sugar Land is an active community. Residents of all ages strongly value recreational programming. Be it through private athletic leagues or City-run day camps and programs, participation in recreational programming is on an upward trend in Sugar Land. When asked during the public survey, adult fitness and wellness, adult leisure learning, senior fitness and wellness, and cultural programming were all ranked as high priority items. Based on public input during stakeholder interviews, observations by City staff, and program participation trends, there is a significant need for expanded recreational space to allow for enhanced multigenerational programming and indoor exercise and fitness facilities. Imperial Park Recreation Center programs which appear to be most sought after by residents are those related to martial arts, dance and fitness, basketball and volleyball leagues, and day camps. T.E. Harman Senior Center recreational programs which are most heavily attended include arts and crafts, board games/games, language related programming, and special activities.

There is a significant need for expanded recreational space to allow for enhanced multigenerational programming and indoor exercise and fitness facilities.

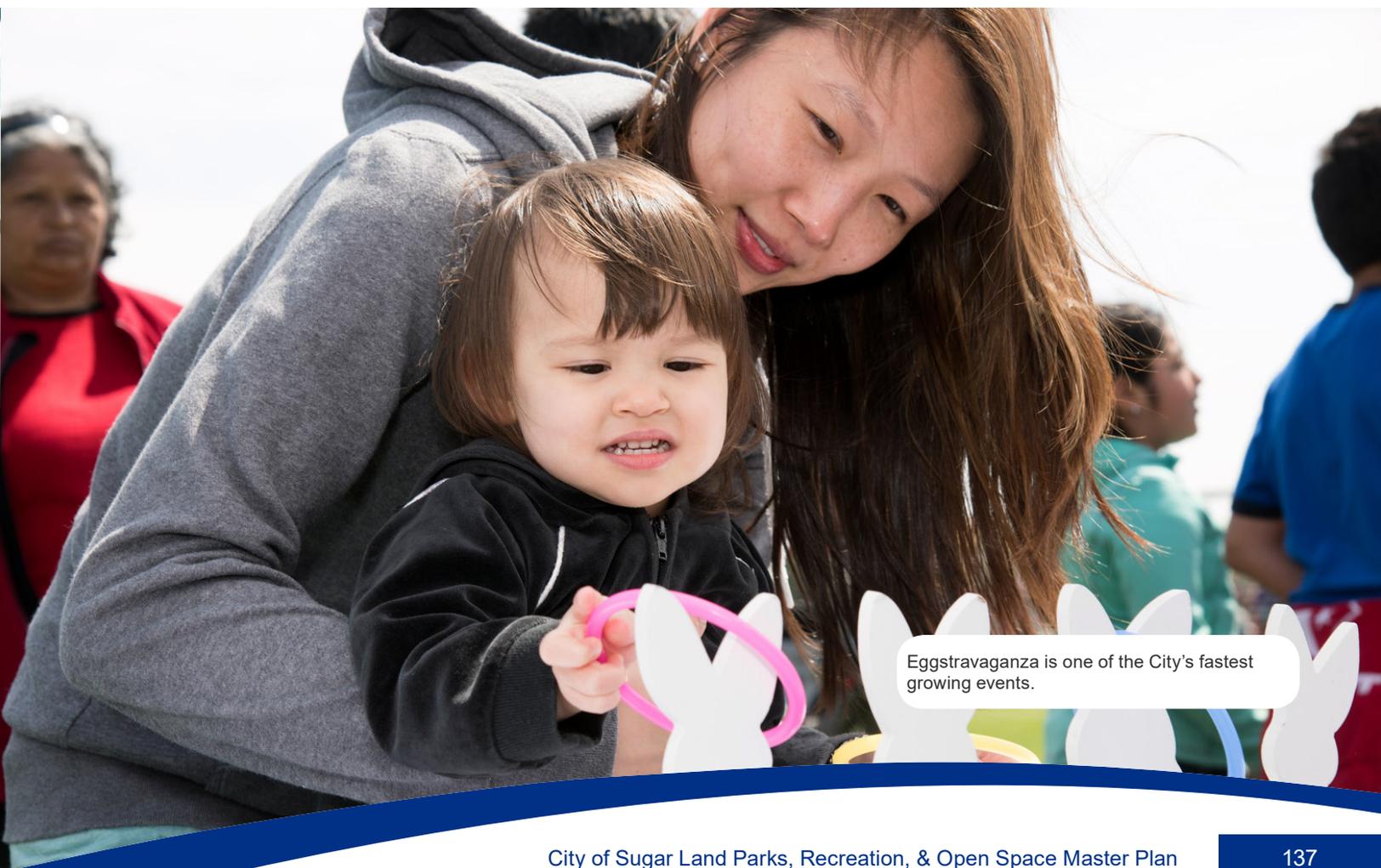


Attendance of recreational programming at the Imperial Park Recreation Center is often inhibited by insufficient space.

Community Events

Four of the top five priority programming items ranked by the community during the public survey were event-based activities. The City has been making a concerted effort to develop spaces (e.g., the Festival Site) appropriate for events with both a local and regional draw. During the open house, music-related and family-friendly events were ranked as top types of desired events. Based on attendance trends of the City's events, it is clear that the community enjoys the event calendar the City is already providing. Family-friendly events, such as the EggStravaganza or Cultural Kite Festival, have seen the greatest growth in the last five years. As the City continues to spend time and resources developing its tourism base and event calendar, there is a need to continue providing additional concerts and/or performing arts, at venues such as the Smart Financial Center, as well as consider providing additional outdoor fairs and festivals, cultural events, City special events, and park specific events.

Family-friendly, multigenerational events have seen the greatest growth in the last five years.



Eggstravaganza is one of the City's fastest growing events.

Parks Facilities, Amenities, and Activities

Similar to the trends seen in event and recreational programming attendance, public input indicates a great need for additional multigenerational passive recreation amenities. Sugar Land is not unique in this aspect. Increase in the demand for passive recreational amenities, such as trails and picnicking facilities, is a widespread trend throughout the region, state, and beyond. As health awareness increases and populations age, the need to provide additional passive amenities which allow for individual and group exercise, socialization, and access to nature becomes further evident. During the public survey, open house, and Sugar Land online Town Hall, the desire for additional paved and natural trails for walking and biking around the City and within parks was continually voiced as a high priority. Other passive amenities ranked as high priorities by the community include shade elements, natural areas and wildlife habitat, playgrounds, paddling trails, and additional water-based recreation amenities (e.g., spray grounds; canoe, kayak, and paddle board rentals).

Public input indicates a great need for additional multigenerational passive recreation amenities.



Trails in Sugar Land are used both for daily activities as well as for larger events, such as the Paws for a Cause dog walk.

Resources and Parkland Development

While the community has expressed a desire for additional programming, events, and parks and trail amenities, none of this can be possible without also considering the City's parks and recreation resources. The City has hundreds of acres of parkland yet to develop and strives to provide a parks and recreation system which sets the bar for the surrounding region. With development of additional parkland and diversification of programming and events comes the need for additional maintenance staffing, equipment, and budget; additional storage space; and programming and security personnel, among other things. As the City continues to grow its system, there is a strong need to allocate additional resources to ensure that the existing system of parks and staffing can be maintained and sustained, while also expanding recreational opportunities for the community.

With development of additional parkland and diversification of programming and events comes the need for additional resources.



Parkland development, such as the Festival Site, requires additional resources both at the time of development and into the future through the need for maintenance, staffing, etc.

Access-Based Assessment

A community that is well-served in terms of parkland and recreational amenities includes an adequate quantity of parkland to meet the needs of all residents, provides nearby access from residences to neighborhood and community parkland, and is equipped with a sufficient quantity of recreational facilities and amenities to serve residents and park users. Decades ago, national guidelines and standards for target levels of service for parkland acreage and facility quantities were developed based on demographic trends. At the time, these guidelines were used on a “one size fits all” basis. However, with recognition that each city has its own unique geographic, demographic, and socioeconomic composition, the arbitrary application of national standards would not necessarily meet the needs of a particular community. Instead, the national standards are now intended to serve as a starting point for park planning and are fine-tuned to meet local conditions.

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

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

Level of Service - Park Acreage

The parkland acreage level of service analysis defines the quantity of parkland acreage in the City, expressed as a ratio of acreage to population. It analyzes whether there is sufficient acreage to serve the population today and in the future.

Level of Service - Access to Parkland

The access to parkland analysis examines the location and distribution of parkland throughout Sugar Land to determine how easy it is for residents to access parkland, and determines where parkland is needed to meet the City’s target level of service.

Level of Service - Park Facilities

The facility level of service analysis 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 7,000 residents of the city.

The Level of Service (LOS) based assessment on the following pages uses target levels of service established by the City in its 2005 Parks, Recreation & Open Space Master Plan. The target levels of service are conveyed as the number of park facilities or acres of parkland needed to adequately serve a given ratio of residents. The targets are created to provide a level of service that Sugar Land feels is most responsive to the extent of park and recreation usage and the interest of its residents.

What is Level of Service?

An analysis to determine if there is adequate acreage, distribution, and diversity of parkland and recreation amenities and facilities. Level of service is frequently described as a quantity of parkland or facilities per 1,000 residents.

Park Acreage in 2017

The purpose of acreage levels of service for parks and recreational areas is to ensure that an adequate amount of area is set aside for all the outdoor recreation needs of a community. Determining the appropriate amount of parkland acreage needed for Sugar Land residents today and in the future allows the City to plan ahead and proactively target and acquire parkland prior to it being developed. As previously mentioned, the target levels of service integrated into this Plan were originally established by the 2005 Parks, Recreation & Open Space Master Plan.

Sugar Land is a mid-sized City with an opportunity and plans to extend into its extraterritorial jurisdiction (ETJ). While extensive suburban development has taken place throughout the City, areas of significant parkland and open space have been preserved by the City and private developers as integrated components of the residential subdivisions. As described in Chapter 2, *Understanding the Community*, the City has a current estimated population of over 87,000 people and is projected to grow by nearly 30,000 people to 116,993 residents by 2020 and 117,308 residents by 2030. This projected population growth accounts for the annexation of New Territory and Greatwood, build-out of Imperial, and projected growth within the City limits. As such, Sugar Land is in a unique situation. While the population of the City is projected to increase very quickly, the planned annexations of New Territory and Greatwood will include the parks, recreation, trails, and other facilities already developed in those neighborhoods.

As this Plan determines needs for the future of Sugar Land, levels of service will be calculated using the 2016 estimated population and 2030 projected population. The City has recently acquired hundreds of acres of additional parkland through parkland dedication (e.g., Brazos River - Riverstone). Determining the needs of the community will allow the City to plan now for the design and development of parkland to accommodate the future needs of residents.

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 pocket, neighborhood, community, and regional parks provided by the City, HOAs, and the school districts. Developed school-owned parkland is generally available for public use after school hours and on the weekends, and oftentimes serves the function of a neighborhood park for residents who live in the nearby vicinity. As such, a percentage (20%) of school district-owned land has been included as neighborhood parkland in the level of service calculations on the following pages. This percentage is based on the fact that only a portion of school-owned properties is used for recreation purposes and some schools (e.g., elementary and middle schools) may provide more public facilities than others. The percentage of the total district-owned land represents a general average found in communities throughout the state.

Throughout the parkland acreage assessment, acreages are listed as “City-owned” acreage only and “all facilities” acreage (i.e., regardless of ownership). The “all-facilities” acreages include City-owned, HOA, and



Target levels of service for parkland acreage and facilities are intended to respond to the extent of park and recreation usage and the interest of residents.



City-owned, HOA, and school-owned parkland is considered as part of the level of service analysis.

System Needs

school (counted as neighborhood parkland) acreages. Developed and undeveloped parkland (including the 65-acre New Community Park and Brazos River - Riverstone) are both included in the analysis.

Pocket or Mini Parks

Pocket parks are typically small pockets of open space located in a neighborhood or accessible by several smaller neighborhoods. They are typically less than one acre in size (though this varies) and primarily provide play areas for nearby residents. The service radius for a pocket park is one-quarter-mile.

The City does not currently provide pocket parks, but there are 16 provided by area HOAs. With a varied target level of service, and the large number of HOAs in Sugar Land, pocket parks remain most appropriately provided by the individual neighborhoods.

Neighborhood Parks

Due to their close-to-home location and ease of access for pedestrians and bicyclists, neighborhood parks form the foundation for daily recreation in most cities. These parks ideally provide facilities and recreation options for all ages and are thus family-friendly destinations. An appropriate level of service for neighborhood parks in Sugar Land is 1.0 to 2.0 acres per 1,000 residents. The service radius for a neighborhood park is ideally one-quarter mile (or a distance that takes a typical pedestrian roughly five to 10 minutes to walk), although one-half mile is generally accepted as standard. There are 15 City-owned neighborhood parks, 36 HOA neighborhood parks, and 28 school properties in Sugar Land. As only a portion of school properties is truly used for public recreation opportunities, 20 percent of the school property acreages have been included in the “all facilities” quantity.

There are a total of 50.9 acres of City-owned neighborhood parkland in Sugar Land. Based on the current population, the City’s current level of service for City-owned neighborhood parks is 0.6 acres per 1,000 residents. When compared to the target of 87.4 to 174.8 acres of neighborhood parkland, the City has a current deficit of 36.5 to 123.9 acres. However, when HOA and school parks are considered in the calculation, the community’s neighborhood parkland need is being sufficiently met for 2017 (see Table 4.1, *Percent of Need Met by Existing Parks, 2017*, on the following page).

Looking forward to 2030, if the City does not acquire any further neighborhood parkland, there would be an increased City-owned deficit of 66.4 to 183.7 acres. However, when considering the HOA and school parkland, the community’s neighborhood parkland need will continue to be met into the future (see Table 4.2, *Percent of Need Met by Existing Parks, 2030*, on the following page). This is especially the case since Greatwood and New Territory residents, who are included in the projected 117,308 population, are already served by the neighborhood parks in their areas.



Pocket parks are meant to serve daily close-to-home recreation needs with elements such as playgrounds, unprogrammed open space, and seating areas.



There are 50.9 acres of City-owned neighborhood parks, such as Sugar Mill Park.

Table 4.1, Percent of Need Met by Existing Parks, 2017

PARK	EXISTING ACREAGE	CURRENT LEVEL OF SERVICE (BASED ON 87,376 POPULATION)	RECOMMENDED TARGET LEVEL OF SERVICE		SURPLUS / DEFICIT ACREAGE	PERCENT OF NEED MET (2017)
Pocket or Mini Park (City-owned)	0.0	0.0 Ac./1,000 Residents	Varies	N/A	N/A	N/A
Pocket or Mini Park (all facilities)	10.4	0.1 Ac./1,000 Residents			N/A	N/A
Neighborhood Parks (City-owned)	50.9	0.6 Ac./1,000 Residents	1.0 to 2.0 Ac./1,000 Residents	87.4 to 174.8	36.5 to 123.9 Ac. Deficit	29% to 58%
Neighborhood Parks (all facilities)	259.1	3.0 Ac./1,000 Residents			84.3 to 171.7 Ac. Surplus	100%
Community Parks (City-owned)	362.2	4.1 Ac./1,000 Residents	5.0 to 8.0 Ac./1,000 Residents	436.9 to 699.0	74.7 to 336.8 Ac. Deficit	52% to 83%
Community Parks (all facilities)	481.7	5.5 Ac./1,000 Residents			217.3 to 44.8 Ac. Surplus	69% to 100%
Regional Parks (City-owned)	1,816.0	20.8 Ac./1,000 Residents	5 to 10 Ac./1,000 Residents	436.9 to 873.8	942.2 to 1,379.1 Ac. Surplus	100%
Regional Parks (all facilities)	1,816.0	20.8 Ac./1,000 Residents			942.2 to 1,379.1 Ac. Surplus	100%

Table 4.2, Percent of Need Met by Existing Parks, 2030

PARK	EXISTING ACREAGE	CURRENT LEVEL OF SERVICE (BASED ON 117,308 POPULATION)	RECOMMENDED TARGET LEVEL OF SERVICE		SURPLUS / DEFICIT ACREAGE	PERCENT OF NEED MET (2030)
Pocket or Mini Park (City-owned)	0.0	0.0 Ac./1,000 Residents	Varies	N/A	N/A	N/A
Pocket or Mini Park (all facilities)	10.4	0.1 Ac./1,000 Residents			N/A	N/A
Neighborhood Parks (City-owned)	50.9	0.4 Ac./1,000 Residents	1.0 to 2.0 Ac./1,000 Residents	117.3 to 234.6	66.4 to 183.7 Ac. Deficit	22% to 43%
Neighborhood Parks (all facilities)	259.1	2.2 Ac./1,000 Residents			24.5 to 141.8 Ac. Surplus	100%
Community Parks (City-owned)	362.2	3.1 Ac./1,000 Residents	5.0 to 8.0 Ac./1,000 Residents	586.5 to 938.5	224.3 to 576.3 Ac. Deficit	39% to 62%
Community Parks (all facilities)	481.7	4.1 Ac./1,000 Residents			104.8 to 456.8 Ac. Deficit	51% to 82%
Regional Parks (City-owned)	1,816.0	15.5 Ac./1,000 Residents	5 to 10 Ac./1,000 Residents	586.5 to 1173.1	642.9 to 1,229.5 Ac. Surplus	100%
Regional Parks (all facilities)	1,816.0	15.5 Ac./1,000 Residents			642.9 to 1,229.5 Ac. Surplus	100%

Community Parks

Community parks are large parks which serve several neighborhoods or a portion of a city. They serve as locations for larger community events, sports, and activities and therefore contain many popular recreation and support facilities. Due to the larger service area (one to two miles) and additional larger scale facilities and programs (e.g., multiple fields), community parks are typically more heavily used and accessed by a vehicle.

The greater number of facilities associated with a community park increase the spatial requirements necessary for this type of park including space for additional amenities and associated parking. The target level of service for community parks in Sugar Land is 5.0 to 8.0 acres for every 1,000 residents. In Sugar Land, there are seven City-owned and seven HOA-owned community parks.

Today, there are 362.2 acres of City-owned community parkland. This equates to 4.1 acres of parkland per 1,000 residents. When compared to the target of 5.0 to 8.0 acres for every 1,000 residents, the City has a minimum deficit of 74.7 acres of City-owned community parkland (see Table 4.1, *Percent of Need Met by Existing Parks, 2017*, on the previous page). When HOA parks are considered against the minimum target level of service (5.0 acres per 1,000 residents), there is a 44.8-acre surplus of community parks.

Considering the projected population growth by 2030, the community parkland deficit increases to a minimum of 224.3 acres of City-owned parks or a 104.8-acre deficit when HOA parks are included in the calculation (see Table 4.2, *Percent of Need Met by Existing Parks, 2030*, on the previous page). In its current state, Greatwood does not include community park facilities. As the City plans for community park amenities, that area will need to be specifically considered. Notably, the City does own a significant quantity of regional parkland. With appropriate development, regional parkland can help meet the growing need for community parks for residents living in the vicinity.



Sugar Land community parks, such as Oyster Creek Park, provide both active and passive recreational opportunities for all ages.

Regional Parks

Regional parks are intended to serve an entire city and surrounding region. It is land that is dedicated as parkland due to its regional importance or relevance. Like community parks, they can act as locations for larger community events, tournaments, or activities if the type of land is appropriate for such activities. There are currently seven regional parks in Sugar Land (one of which is broken down into five separate areas), totaling 1,816.0 acres. This breaks down to 20.8 acres of regional parkland per 1,000 residents which is impressive, no matter where the community.

Due to their greater size and potential variety of amenities, Sugar Land's regional parks have a larger service radius of four or greater miles. The recommended level of service for regional parks in Sugar Land is five to 10 acres per 1,000 residents. Based on the target level of service, and the existing and projected populations, the City has more than adequate regional parkland acreage for 2017 and 2030 (see Table 4.1, *Percent of Need Met by Existing Parks, 2017*, and Table 4.2, *Percent of Need Met by Existing Parks, 2030*, on page 143). However, while the City owns a great number of acres of regional parkland, only approximately 34 percent of that parkland is currently developed. Moving forward, it is crucial for the City to continue appropriate development of its regional parks to meet the need of residents today and in the future.

Access to Parkland

When determining the parkland needs of the community, it is important to analyze both quantity and location of parkland acreage. As previously described in Chapter 3, *The System Today*, Sugar Land includes nearly 2,500 acres of dedicated parkland, not including school-owned recreation areas. While City-owned parkland is spread throughout the community, the largest park areas are located towards the perimeter of the City. Residents in the center of the City must drive a few miles to access the community and regional parks. The maps on the following pages will analyze the location of parks throughout the community. Since they have different sizes, quantities of facilities, and service areas; pocket/neighborhood, community, and regional parks will be analyzed separately. Access to pedestrian connectivity amenities (i.e., trails, sidepaths, and sidewalks) will also be analyzed.



Currently, the City's largest regional park is Cullinan Park, providing hundreds of acres of passive recreation potential. In the future, the Brazos River Park will be the largest regional park.

In total, there are over 2,500 acres of public, private, and school-owned parkland in Sugar Land. This equates to 29.4 acres of parkland per 1,000 people today.

Neighborhood & Pocket Park Accessibility

As previously mentioned, neighborhood parks are daily-use parks and typically have a one-quarter-mile ideal service area and a one-half-mile standard service area. These areas, representing practical walking distances for children and other park users, are illustrated on Map 4.1, *Neighborhood & Pocket Park Accessibility*. Due to their smaller size and reduced draw for residents from a further distance, pocket park service areas are illustrated as one-quarter-mile. Neighborhood and pocket parks are ideally located away from major arterial streets and should be accessible without requiring residents to cross major streets. Consequently, service areas for these parks do not extend beyond the City's arterial roadways (Highway 59/Interstate 69, U.S. Highway 90, and Highway 6).

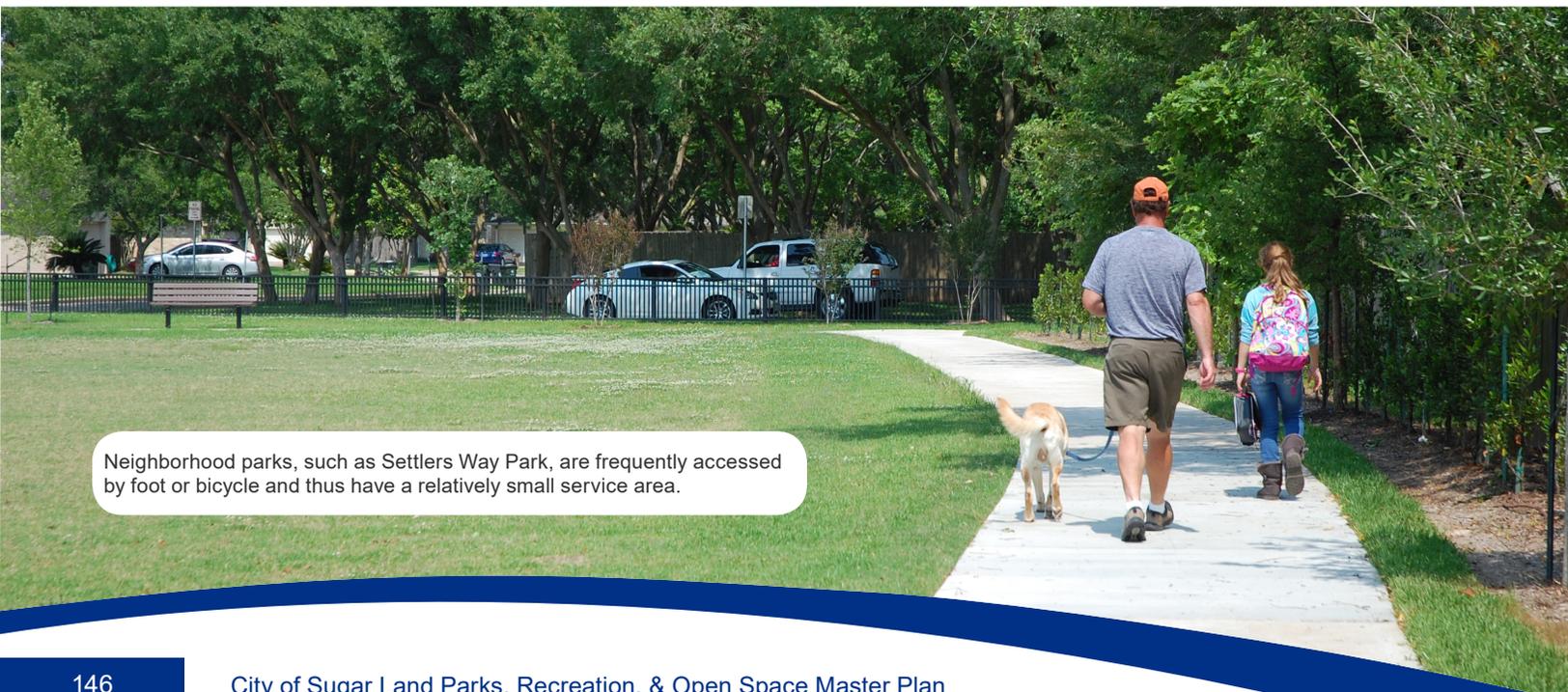
Since the City's community and regional parks have potential to serve the function of a daily-use neighborhood park for residents in the vicinity, they are illustrated on this map with the one-quarter and one-half-mile neighborhood park service areas.

Public schools (which oftentimes include playscapes and other recreational amenities) often also serve the function of a close-to-home park for residents in the nearby neighborhood. As such, the Fort Bend ISD and Lamar Consolidated ISD schools are illustrated with the one-quarter and one-half-mile service areas.

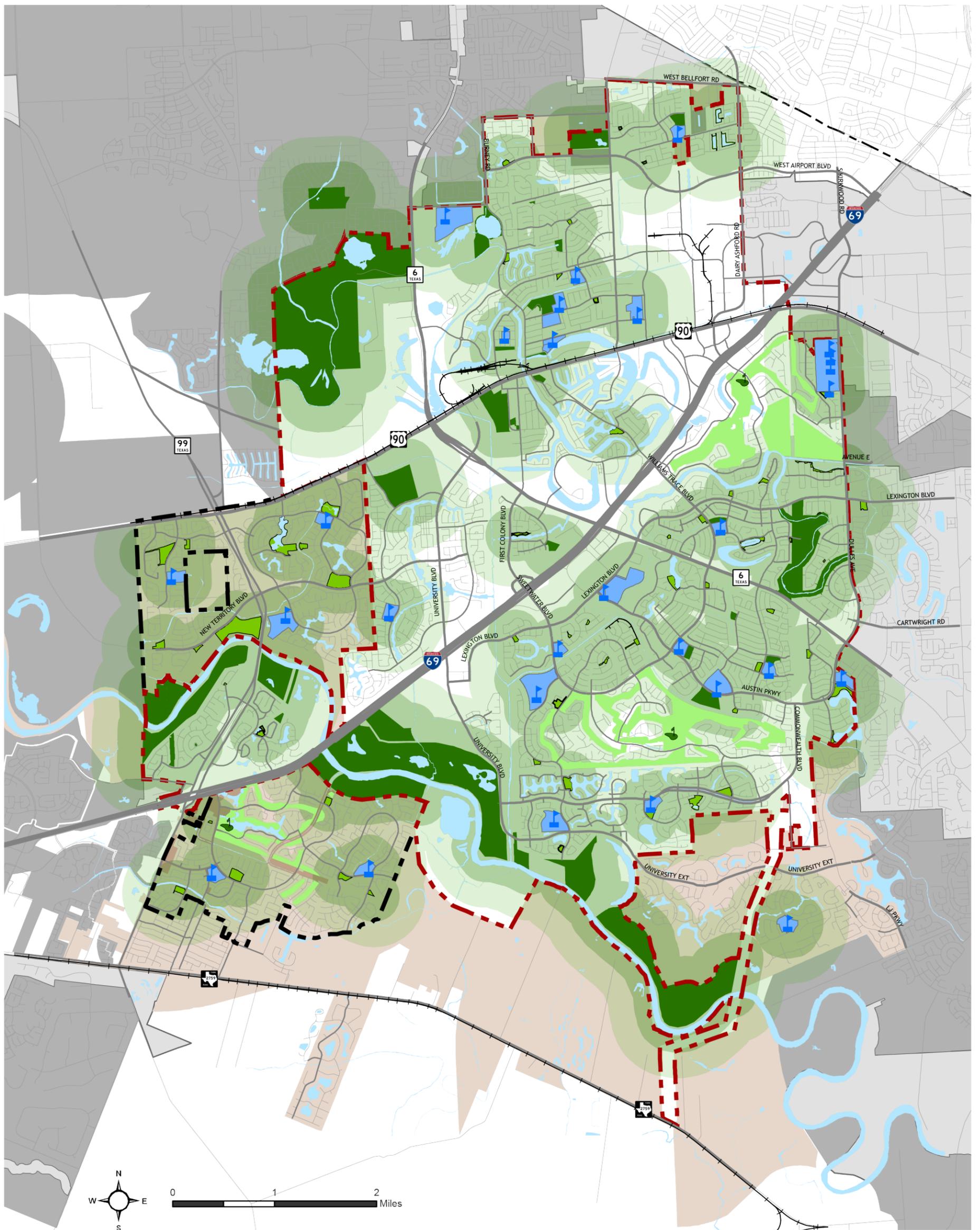
Current Need Areas

Areas currently served by neighborhood parkland are illustrated in light green on Map 4.1, *Neighborhood & Pocket Park Accessibility*. While the majority of the City is adequately served by neighborhood parkland, the southwest portion of the City is best served. Alternatively, there are service area gaps near the intersection of Highway 59/Interstate 69 and U.S. Highway 90. This area, known as Sugar Creek, is the only neighborhood lacking neighborhood parkland within one-quarter and one-half-mile of residences. In the park system's current state, nearly 85 percent of the City has nearby access (i.e., 1/4 or 1/2-mile) to a neighborhood park.

Nearly 85 percent of the City has nearby access to a neighborhood park.



Neighborhood parks, such as Settlers Way Park, are frequently accessed by foot or bicycle and thus have a relatively small service area.



Map 4.1, Neighborhood & Pocket Park Accessibility

Legend

- | | | | |
|------------------------|--|-------------|------------------------|
| Golf Club | Sugar Land Limited Purpose Annexation (2017) | Major Roads |
Park Service Areas |
| City Parks | Nearby City Limits | Minor Roads | |
| HOA Parks | Sugar Land ETJ | Railroads | |
| Schools | Nearby City ETJs | | |
| Sugar Land City Limits | Counties | | |
| City Limits 2018 | Lakes, Streams, Creeks | | |

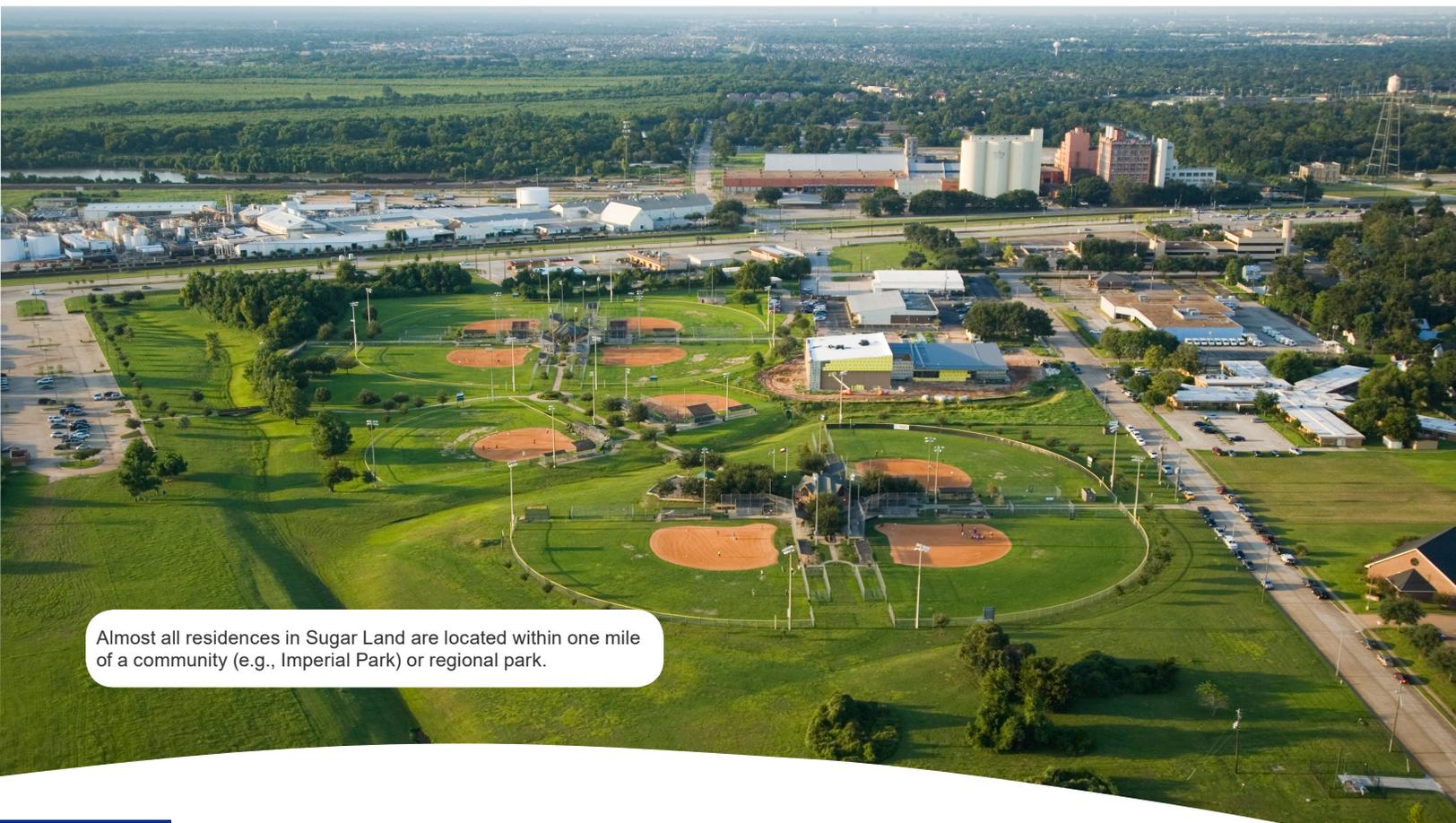
Community Accessibility

Community parks have a general service area of one to two miles, representing reasonable walking, biking, or driving distances for residents to access the greater number of amenities found in these types of parks. Similarly as with neighborhood parks, the City's regional parks have potential to fulfill community park needs for nearby residents. Considering this, Map 4.2, *Community Park Accessibility*, illustrates the community park service areas today seen today.

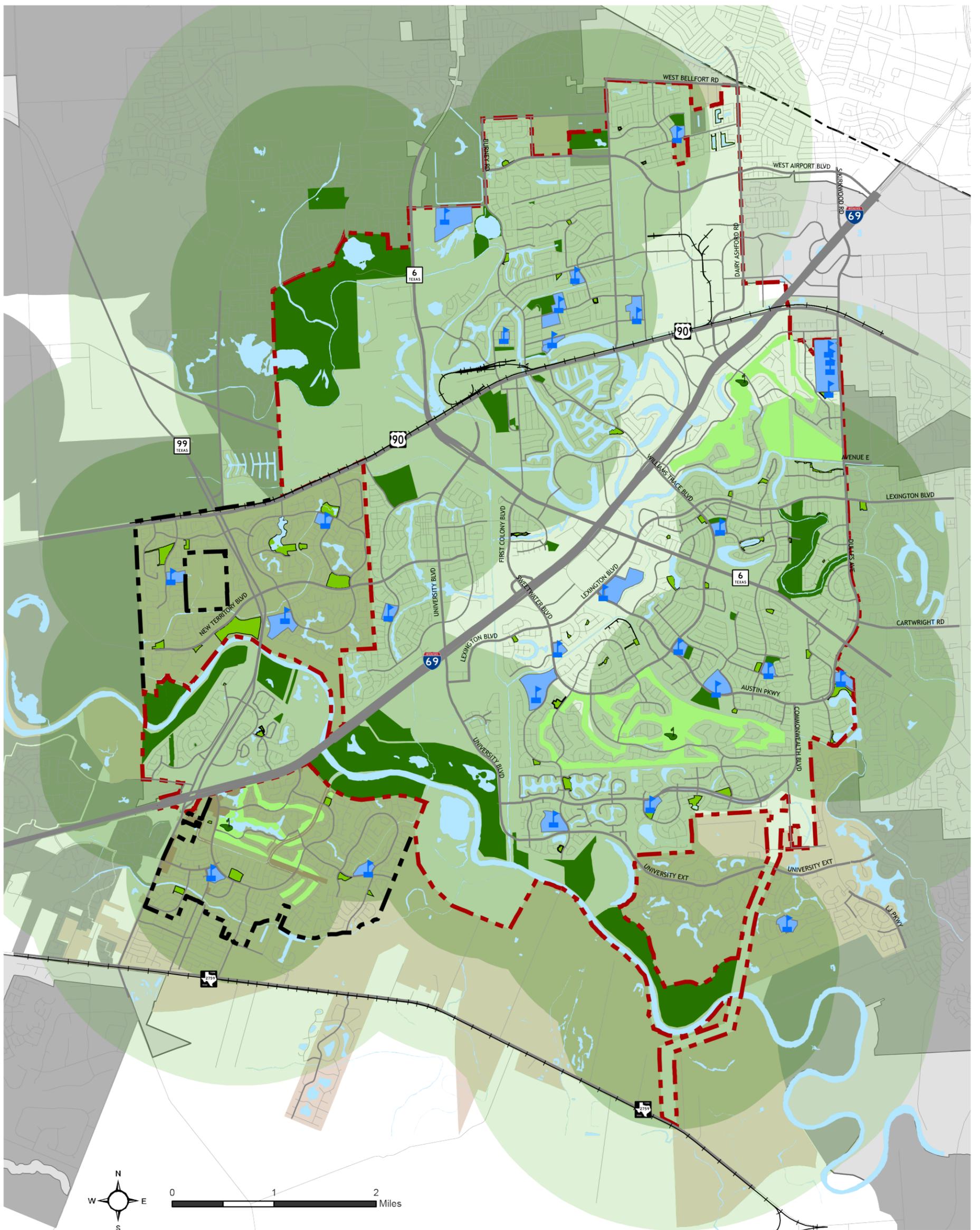
Almost all residences in Sugar Land are located within one mile of a community or regional park. There are, however, gaps in the one-mile service areas along Highway 59/Interstate 69 and U.S. Highway 90. Notably, 99.9 percent of the community is located within two miles of community-serving parkland.

That being said, some of the City's community parks and a large portion of the regional parkland remains undeveloped. In an effort to better serve the residents and truly provide the service coverage illustrated in Map 4.2, *Community Park Accessibility*, the City will need to further develop community and regional parkland with both passive and active amenities, as appropriate for each site.

Nearly 100 percent of the City is located within two miles of a community-serving park.



Almost all residences in Sugar Land are located within one mile of a community (e.g., Imperial Park) or regional park.



Map 4.2, Community Park Accessibility

Legend

- | | | | |
|------------------------|--|-------------|--|
| Golf Club | Sugar Land Limited Purpose Annexation (2017) | Major Roads | 1-Mile
2-Mile
Park Service Areas |
| City Parks | Nearby City Limits | Minor Roads | |
| HOA Parks | Sugar Land ETJ | Railroads | |
| Schools | Nearby City ETJs | | |
| Sugar Land City Limits | Counties | | |
| City Limits 2018 | Lakes, Streams, Creeks | | |

Regional Accessibility

Cullinan, Gannoway Lake, Brazos River, Duhacsek, Sugar Land Memorial Parks, and the newly developed Festival Site make up over 1,800 acres of regional parkland which serve residents of Sugar Land, the surrounding communities, and greater region. All of these parks are located along the northern or southern extents of the City limits. With a larger service area due to the greater sizes of the parks and the types of amenities and experiences offered, over 99 percent of the City is located within the regional park four-mile service area (see Map 4.3, *Regional Park Accessibility*).

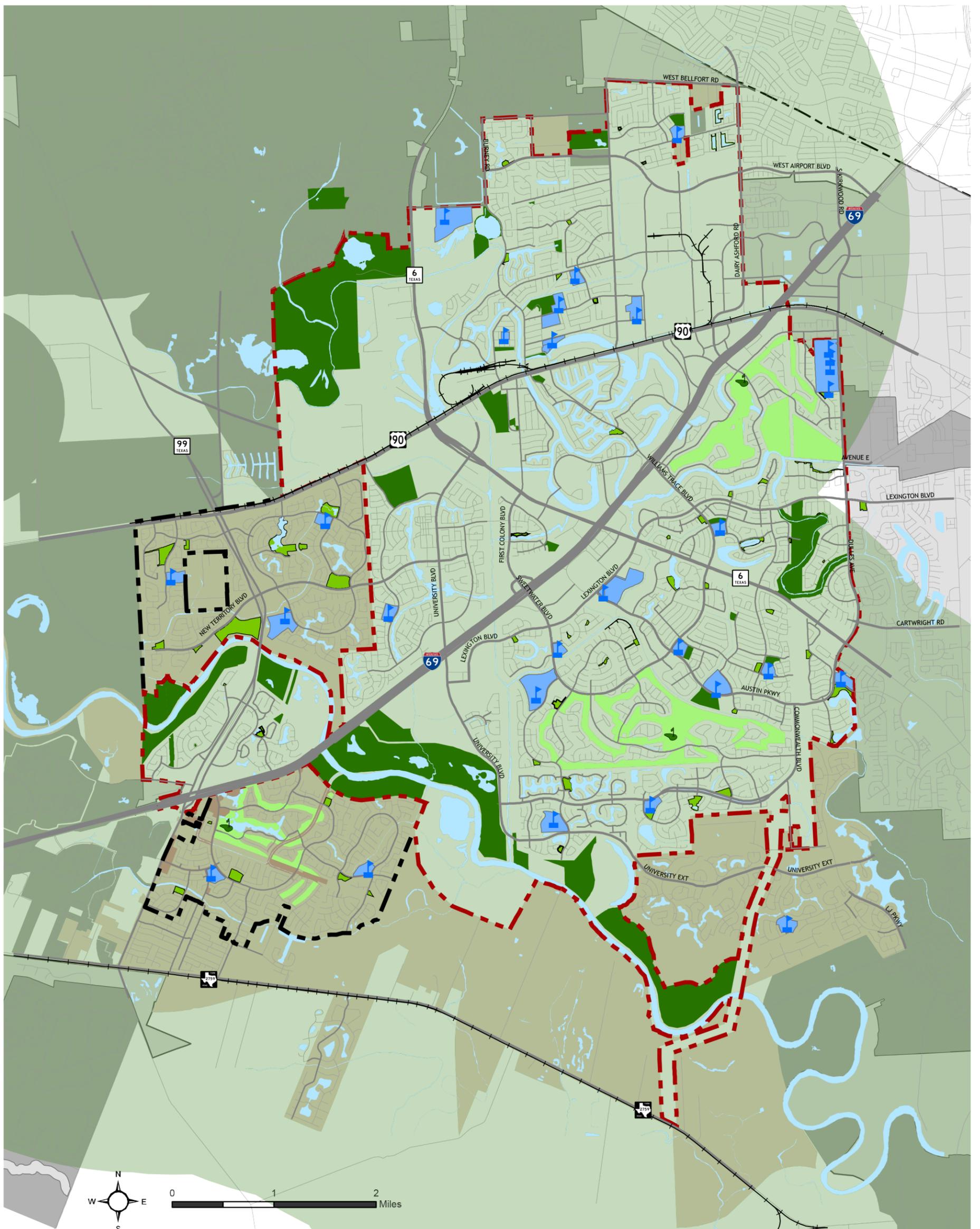
As noted before, despite providing a multitude of regional parkland acres, only 34 percent of that parkland is developed and truly serving the community. Key opportunities exist for the City to further enhance and diversify its already developed regional parks. Additionally, there are nearly 1,200 acres of undeveloped regional parkland in the areas listed below. Development of the parks should be appropriate for their location and consider environmental and other site constraints such as floodway, wetlands, and other sensitive natural areas. Development in these areas would need to minimize disturbance and could potentially include elements such as trails and environmental education, among others. In other less sensitive areas in the regional parks, development of additional neighborhood (e.g., playground) and community (e.g., open field space with standalone backstops) park amenities could be provided for nearby residents.

- Cullinan Park
- Brazos River - Water Plant Area
- Gannoway Lake Park
- Brazos River - Riverstone
- Brazos River - Brazos Landing
- Duhacsek Park
- Brazos River - Greatwood
- Brazos River - River Park

Over 99 percent of the City is located within the regional park four-mile service area.



Regional parks, such as Sugar Land Memorial Park, have large service areas due to the size of the parks and varying types of amenities and experiences offered.



Map 4.3, Regional Park Accessibility

Legend

- | | | | |
|------------------------|--|-------------|----------------------------------|
| Golf Club | Sugar Land Limited Purpose Annexation (2017) | Major Roads |
4-Mile
Park Service Areas |
| City Parks | Nearby City Limits | Minor Roads | |
| HOA Parks | Sugar Land ETJ | Railroads | |
| Schools | Nearby City ETJs | | |
| Sugar Land City Limits | Counties | | |
| City Limits 2018 | Lakes, Streams, Creeks | | |

Trail Accessibility

As described in Chapter 3, *The System Today*, the City has 20 different trails, totaling approximately 39 miles. In addition to off-street trails, the City has a network of sidewalks and sidepaths that provide safe pedestrian and bicycle (on sidepath only) connectivity to the City’s trails and other key destinations. As evidenced through public engagement results, natural and paved trails are the some of the community’s highest ranking priorities. Trails and sidepaths create opportunities for non-motorized transportation and multigenerational recreational activities. Additionally, with the increasing interest in health, quality of life, and alternate modes of transportation in today’s society, having nearby access to a trail or sidepath is becoming more important for communities.

Being that access to trails is such an important element for park users and that many people would like the ability to conveniently walk or ride to a trail, Map 4.4, *Trail Accessibility*, illustrates a one-quarter-mile and one-half-mile service area around the City’s existing trails and sidepaths. While sidewalks provide expanded connectivity, they are intended for pedestrians only, so they are not illustrated with a buffer on the map. In its current state, about 87 percent of the community (including both residential and non-residential areas) is within one-half-mile of a trail or sidepath. Service area gaps are primarily located north of U.S. Highway 90 and near the intersection of U.S. Highway 90 and Highway 59/Interstate 69.

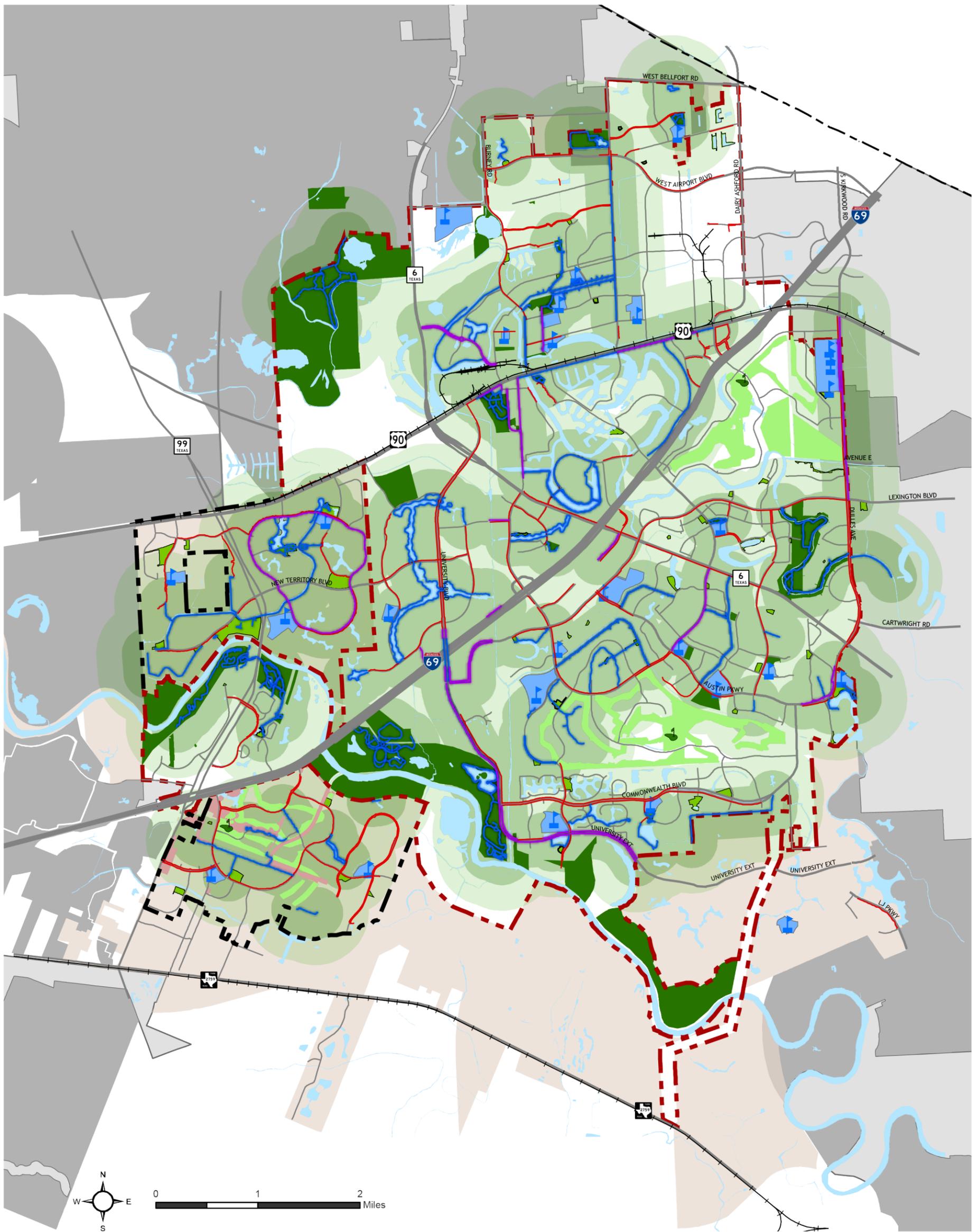
The City adopted the Sugar Land Pedestrian and Bicycle Master Plan in 2013. With systematic implementation of the plan’s recommendations, key service area gaps can be filled and greater community-wide connectivity provided in the upcoming years.



Both on-street (i.e., sidepath) and off-street trails are important components of a citywide trail network.

Table 4.3, Summary of Parkland Needs

NEED TYPE	SUMMARY
Parkland Acreage, Development, and Distribution	Aside from community parkland, the City has adequate parkland acreage to meet its 2017 and 2030 acreage goals. In total, there are over 2,500 acres of parkland in Sugar Land, or 29.4 acres per 1,000 people in 2017. Due to the level of development in the City, additional acquisition of parkland could be challenging. However, additional acquisition opportunities could exist along the Brazos River Corridor, along Scenic River Drive south of Commonwealth, and in the Sugar Creek subdivision.
Pocket & Neighborhood Parks	The City’s HOAs and public schools help to meet the community’s pocket and neighborhood parkland needs. Current service area gaps exist northeast of Highway 59/Interstate 69. Implementation of the 2013 Pedestrian & Bicycle Master Plan recommendations can help to provide greater and safer pedestrian and bicycle access to pocket and neighborhood parks. The Sugar Creek neighborhood lacks nearby access to neighborhood parkland.
Community Parks	The City has the greatest current and future acreage deficits for community parkland. Additionally, Greatwood lacks community park facilities. The City should keep an eye out for opportunities to develop additional community park amenities (e.g., along Scenic River Drive south of Commonwealth). Additionally, in lieu of acquiring additional community parkland, the City could prioritize diversified development of its regional parks to provide nearby access to community park amenities.
Regional Parks	Sugar Land has a very large quantity of regional parkland, the majority of which remains undeveloped. As the City plans and prioritizes development of its regional parks, consideration should be given to both active and passive amenities. Many of the regional parks include sensitive natural resources. However, any areas that could appropriately offer flexible active recreation spaces (e.g., standalone baseball backstops to allow for informal pick up games, publicly accessible multipurpose field space), should be considered to provide community park amenities for the local residents.
Trails	Development of additional trails is very high on the community’s priority list. Currently, approximately 87 percent of the City is located within one-half-mile of a trail or sidepath. Strategic, prioritized implementation of the 2013 Pedestrian & Bicycle Master Plan recommendations will help to fill the current service area gaps.



Map 4.4, Trail Accessibility

Legend

Existing

- Off-Street Trail
- Sidepath
- Sidewalk

- Golf Club
- City Parks
- HOA Parks
- Schools
- Sugar Land City Limits
- City Limits 2018

- Sugar Land Limited Purpose Annexation (2017)
- Nearby City Limits
- Sugar Land ETJ
- Nearby City ETJs
- Counties
- Lakes, Streams, Creeks

- Major Roads
- Minor Roads
- Railroads

- 1/4-Mile
- 1/2-Mile
- Park Service Areas

Park Facilities and Amenities

Facility/amenity levels of service are used to help ensure a variety of recreation opportunities throughout the City as population growth occurs. To better focus the City's resources, these target levels of service are used to prioritize the need for different types of park facilities/amenities. In order to determine facility/amenity needs, the existing level of service is first established. This illustrates how many people each park facility or amenity is currently serving. Target levels of service then illustrate the recommended number of residents which should be served by each facility/amenity. These target numbers are tailored for Sugar Land to reflect the community's needs and desires, current usage, realistic feasibility, and up and coming recreation trends. The target level of service for each type of facility is used as a guide to provide the most basic recreation facilities to the community.

Description of the 2017 existing and target levels of service for each facility/amenity type are included in Table 4.4, *Target Level of Service for Park Facilities/Amenities*. The existing level of service and need are based on the current estimated population of 87,376. The 2030 needs are based on the projected 2030 population of 117,308. Current and projected facility/amenity deficits are highlighted in tan.

Similar to parkland acreage, a number of park facilities/amenities which serve the community of Sugar Land are provided by the area HOAs and public schools. In many communities, certain types of recreational facilities are more commonly provided by schools than by cities (e.g., tennis courts). In order to gain a comprehensive understanding of the park facilities/amenities that are available to residents, Table 4.4, *Target Level of Service for Park Facilities/Amenities*, includes quantities for City, HOA, and school facilities/amenities.

Summary of Park Facility Needs

As illustrated in Table 4.4, *Target Level of Service for Park Facilities/Amenities*, the community largely has sufficient access to park facilities/amenities. Key existing deficits in 2017 include a few passive and active amenities such as picnic facilities in each park, a full-length disc golf course, splash pads, basketball courts, and recreation center space. Looking forward to 2030, aside from the need for additional amphitheater/outdoor performance space, these are the only categories in which the City would continue to be deficient in.



There is a need for additional recreation center space to allow for increased multigenerational programming.



The need for additional splash pads was identified through the facility level of service assessment.

Table 4.4, Target Level of Service for Park Facilities/Amenities

	FACILITY	CITY	HOA	SCHOOL	CURRENT AVAIL.	CURRENT LOS (1 FACILITY PER # RESIDENTS)	TARGET LOS (PER RESIDENTS)	2017 NEED BASED ON 87,376 POP.	2017 DEFICIT OR SURPLUS	2030 NEED BASED ON 117,308 POP.	2030 DEFICIT OR SURPLUS
ACTIVE RECREATION	Baseball/Softball Fields	25	9	36	70	1,248	1 per 7,000	13	Surplus	17.0	Surplus
	Basketball Courts	2	4	9.5	15.5	5,637	1 per 4,000	22	Deficit of 6.5	30.0	Deficit of 15
	Recreation Center	2 (28,000 SF)	SF unknown	0	28000	1 SF per 3 people	1 SF per person	approx. 87,400 SF	Deficit of approx. 59,400 SF	approx. 117,300 SF	Deficit of approx. 89,300 SF
	Dog Park	1	2	0	3	29,125	1 per city	1	Surplus	1.0	Surplus
	Football Field Practice Space	2	0	18	20	4,369	1 per 20,000	5	Surplus	6.0	Surplus
	Golf Course (public)	0	1	0	1	87,376	Varies	Varies	Varies	Varies	Varies
	Skate Park	1	0	0	1	87,376	1 per city	1	No deficit	1.0	No deficit
	Soccer Fields	31	10	23	64	1,365	1 per 5,000	18	Surplus	24.0	Surplus
	Tennis Courts	5	54	38	97	901	1 per 4,000	22	Surplus	30.0	Surplus
	Volleyball Courts	11	9	4	24	3,641	1 per 7,000	13	Surplus	17.0	Surplus
	PASSIVE RECREATION	Amphitheater/Outdoor Performance Space	2	0	0	2	43,688	1 per 50,000	2	No deficit	3.0
Disc Golf (18-hole)		1	0	0	1	87,376	1 per 50,000	2	Deficit of 1	3.0	Deficit of 2
Horseshoe Pits		6	2	0	8	10,922	2 per city	2	Surplus	2.0	Surplus
Picnic Shelter/Pavilions		24	66	11	101	865	1 per 4,000	22	Surplus	30.0	Surplus
Picnic Facilities (Tables, Benches, BBQ Grills, Trash Bins)		21 parks	34 parks	16 parks	71 parks	1,231	In all parks	In all parks	Deficit in 39 parks	In all parks	Deficit in 39 parks
Playgrounds		18	51	34	103	848	1 area per 3,000	30	Surplus	40.0	Surplus
Trails (miles)		39.0	mileage not available	mileage not available	39.0	2240.4	1 per 4,000	22.0	Surplus	30.0	Surplus
WATER REC.	Canoe/Kayak Launch	1	2	0	3	29,125	Varies	Varies	Varies	Varies	Varies
	Fishing Piers	3	8	0	11	7,943	Varies	Varies	Varies	Varies	Varies
	Swimming Pool	1	39	0	40	2,184	1 per 20,000	5	Surplus	6.0	Surplus
	Splash Pad	2	5	0	7	12,482	1 per 10,000	9	Deficit of 2	12.0	Deficit of 5
MISC.	Restrooms/Portable	17	35	0	52	1,680	Where feasible	Where feasible	Feasible	Where feasible	Feasible

Resource-Based Assessment

The resource-based assessment identifies key physical features of the City that may be incorporated as potential recreational opportunities, including both natural and man-made features. Sugar Land's natural resources, including floodplains, lakes and waterways, and untouched native landscapes, are areas that should be preserved as open space and/or adapted for recreational use, where feasible. Additionally, features including the City's man-made drainageways, overhead utility rights-of-way, and key public rights-of-way provide potential for further citywide connectivity. The use or development of each of these resources should be determined on a case-by-case basis, depending on the unique characteristics of each location and the opportunities that can be supported without damaging environmentally sensitive features. It is important to approach the use and development of these various resources in a unified, coordinated manner in order to realize the best results from each.

While the City has a number of areas with natural and man-made resources that have potential to provide recreational opportunities for residents, there are five key areas which, if capitalized upon, could most significantly impact the parks and recreation system in Sugar Land. These areas include the Brazos River corridor, Oyster Creek, drainage corridors, Cullinan Park, and Gannoway Lake Park.

Brazos River Corridor

The Brazos River corridor, traversing the southern edge of the City limits, is the unifying element in the City of Sugar Land. The City owns hundreds of acres of parkland along the corridor including Brazos River Park, Sugar Land Memorial Park, River Park Trails, the Festival Site and Canoe Launch, and numerous acres of undeveloped parkland (i.e., Brazos Landing, Greatwood, River Park, Water Plant Area, and Riverstone). These City-owned properties offer protection to the Brazos River and surrounding ecosystems; physical, visual, and programmatic access to the river; and a variety of passive recreational opportunities. If overall preservation, programming, and development of the corridor is done in a comprehensive manner, the Brazos River corridor stands to become a truly unique regional destination providing multigenerational recreation and connectivity, environmental tourism and education, and wildlife habitat protection.

Oyster Creek

Oyster Creek is the City's second largest waterway, after the Brazos River. The creek runs from the northwestern to eastern City limits, into Missouri City. Along its route, the creek runs through or adjacent to five City parks; Cullinan Park, Gannoway Lake Park, Thomas L. James Park, Oyster Creek Park, and Lost Creek Park. The creek



Overhead utility rights-of-way can often provide potential recreation space, such as the soccer fields in Lost Creek Park.



Oyster Creek runs through the northern portion of Sugar Land and provides opportunities for residents to observe nature and wildlife.

provides existing and additional potential for a variety of passive recreation opportunities including paddling trails, adjacent hike and bike trails, access to nature and wildlife viewing, and nature-based education. As the City further develops its water-based recreation opportunities, the potential of Oyster Creek to supplement the current offerings should be considered.

Drainage Corridors

The City of Sugar Land ranges from approximately 70 to 90 feet above sea level and is a relatively flat city. As such, a series of man-made drainage corridors criss-cross the City, providing stormwater drainage and flood control. These corridors are generally linear in nature and are ideal for pedestrian and bicycle connectivity. As identified in the 2013 Sugar Land Pedestrian and Bicycle Master Plan, further development of the citywide trail system to include key trail segments along some of the drainage corridors can provide enhanced connectivity throughout Sugar Land and access between residences and parks, schools, and other key destinations. Above and beyond connectivity, the addition of appropriate vegetation along the drainage corridors can provide opportunities for wildlife habitat, stormwater filtration, and overall community beautification.



The City's drainage ditches provide numerous citywide connectivity opportunities.

Gannoway Lake Park

In its current state, Gannoway Lake Park remains undeveloped. The park includes over 50 acres of picturesque untouched natural vegetation, wildlife habitat, and Gannoway Lake. The City also stands to gain over 100 acres of additional land which would provide western connectivity opportunities with Cullinan Park. The size and environmental assets in the park provide great opportunities for the development of environmental education elements, water-based recreation, and multigenerational passive recreation amenities. Especially considering the substantial desire for passive recreation amenities by residents, Gannoway Lake Park has potential to fill a recreational need in the City.

Cullinan Park

Cullinan Park is one of only a handful of parks in the region to provide such a large area (756 acres) of preserved parkland and open space. Annexed into the City in 2016, this park is currently minimally developed to include trails, a boardwalk, picnic amenities, and habitat and wildlife observation. With appropriate development which respects the ecological systems on the site, this park has potential to provide daily access to nature for local residents and serve as a regional tourism draw for Sugar Land.



Gannoway Lake Park includes over 50 acres of picturesque untouched natural vegetation, wildlife habitat, and Gannoway Lake.

Additional Impacts of Parkland

The preservation of open space and development of high quality parks has far-reaching benefits in a community. Above and beyond the expected recreational and quality-of-life benefits, parkland has additional economic, environmental, social, and health-related benefits. Key quantifiable benefits related to the environmental and health impacts of parkland include the following:

- Air quality improvements through such processes as carbon mitigation and the cooling effect of trees. Sugar Land has 1,562 acres of forested parkland. Using the Parks Values Calculator provided by the National Recreation and Park Association's (NRPA) Park Metrics program (formerly PRORAGIS), Sugar Land's forested parkland provides \$148,249 in annual value to the City.¹
- Water quality benefits through the provision of pervious surface and drainage areas. Based on NRPA's Parks Values Calculator, Sugar Land's 1,562 acres of forested parkland provide \$90,596 in annual value to the City.²
- There are also a variety of health effects park visitors enjoy from exercise and stress relief associated with park and park facility visits. For example, regular visitors to recreation facilities have lower incidences of obesity, which lowers healthcare spending for hypertension, cardiac disease and diabetes.

Through air quality and water quality benefits, Sugar Land's forested park land provides nearly \$239,000 in annual value to the City.³

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- 1 Acres \$94.91 per acre per year - Coder, Dr. Kim D., "Identified Benefits of Community Trees and Forests", University of Georgia, October, 1996. (One hectare forest equals \$136/day value of air pollution control. Converted to acre/year)
- 2 Acres \$58.00 per acre per year - John F. Dwyer, E. Gregory McPherson, Herbert W. Schroeder, and Rowan Rowntree, "Assessing The Benefits and Costs of the Urban Forest," Journal of Arboriculture 18(5): September 1992. (Est. \$0.18 runoff savings per tree = 0.29/ tree in 2011, or \$58/acre at 200 trees/acre.)
- 3 Parks Values Calculator provided by the National Recreation and Park Association's Park Metrics program (formerly PRORAGIS).



Access to parks provides fitness, stress relief, and other health-related benefits for the community.

Peer Community Comparisons

A comparative analysis of Sugar Land's peer agencies enables the elected and appointed officials, decision-makers, and PARD staff to understand how the City ranks among its peers in a variety of performance measures. There are no good or bad answers. There are no correct or incorrect answers. The quantitative numbers shown are reflective of how Sugar Land does business. The aggregated responses shown in the tables on the following pages indicate how the peers rank across a range of responses. The City can use this data as a starting point to establish goals, objectives, or strategies to improve the value of the PARD's services to the community.

The Peers

The peer communities were selected from 32 similar sized cities in Texas and the remaining sunbelt states. The communities included in this analysis do not represent an exhaustive list of comparison cities, but rather those that both fit the criteria and had completed the NRPA Park Metric Survey for 2015 or 2016. The communities listed in Table 4.5, *Peer Communities*, were used to create the aggregated responses and comparative analysis on the following pages. All of the selected communities have similarities and variations. Community search criteria included:

- populations from 40,000 to 160,000 persons; and
- states in the sunbelt from California to Virginia.

Of the 15 comparison communities, Sugar Land's PARD budget (5.1% of total City budget), ranks as the 10th highest budget as a percentage of the total jurisdiction's budget (excluding Chico which is a park district with its own funding source).

Table 4.5, Peer Communities

DATA YEAR	DEPARTMENT	STATE	POPULATION	PARKS & REC. AS % OF TOTAL JURISDICTION BUDGET
2015 Reports TX and Sunbelt				
2015	Broken Arrow (City of) Parks and Recreation Department	OK	105,000	4.8%
2015	Carrollton (City of) Parks & Recreation Dept	TX	128,353	6.2%
2015	Hollywood Parks, Recreation and Cultural Arts	FL	146,526	2.6%
2015	Maricopa Parks and Recreation	AZ	47,442	14.0%
2015	Pearland Parks & Recreation	TX	130,100	9.8%
2015	Round Rock PARD	TX	109,000	10.8%
2015	Suffolk Parks & Recreation	VA	90,426	1.9%
2016 Reports TX and Sunbelt				
2016	Chico Area Recreation & Park District	CA	106,000	100% *
2016	Frisco (City of)	TX	152,710	11.6%
2016	Missouri City Parks & Rec	TX	73,626	3.1%
2016	New Braunfels Parks and Recreation	TX	67,000	9.6%
2016	Roswell Recreation, Parks, Historic & Cultural Affairs Dept	GA	92,364	13.2%
2016	Sugar Land (City of)	TX	87,376	5.1%
2016	Walnut Creek	CA	67,673	12.4%
2016	Yuma (City of)	AZ	93,400	9.3%

* Chico is a state-created park district with its own funding source

Comparative Analysis

The data for this analysis is the result of parks and recreation departments nationwide that have completed the annual Park Metric Survey. The peers included in this analysis were selected from respondents to the 2015 and 2016 surveys.

The results are primarily presented using the lower-quartile (lowest 25%), median, and upper-quartile (highest 25%) as indicators of how Sugar Land Parks and Recreation compares to its peers. These quartiles are established using the range of responses from the 15 peer communities. In some comparisons below, the national quartile value is described as a point of reference.

The comparison to peers is a guide. Where Sugar Land's PARD ranks different than many of the peer communities, it may be cause to examine the factors leading to those differences. For example, the City may mow its athletic fields once a week. A peer agency may use a different grass that requires mowing three times a week. Consequently, the peer agency may be using more staff and operating dollars to maintain their fields even though they have the same number of fields as Sugar Land. The peer community is performing differently, not better or worse.

Additional peer comparisons ranging from responsibilities to facility quantities to activities can be found in Appendix E, *Peer Community Comparisons*.

Operational Budget and Earned Revenue

Sugar Land's PARD is compared to the aggregated responses for operational budget and earned revenue in Table 4.6, *Operations and Revenue*. For the most part the PARD is in the lower Quartile (less than 25% of respondents). Considerations include the following:

- The per capita expenses for Sugar Land (\$49.00) are in the lower quartile of the peer group. Nationally, the 2016 lower quartile is \$38.78 for per capita expenses. However, many departments are only operating for a partial year due to climate.
- Sugar Land's revenues per capita are \$7.00 and are also in the lower quartile for the peer group. Nationally, the 2016 lower quartile is \$6.47.
- Consequently, it is no surprise that the ratio of total revenue to total operating dollars (15.30%) is also in the lower quartile.
- Due to the low revenue generation, the per capita tax expenditure (\$41.00) is higher than other indicators. However, this is primarily because peers generate more revenue.

The primary question to consider is whether the tax expenditures for land facilities and services, and the revenue generation level, are consistent with the preferences of the City's residents.

Table 4.6, Operations and Revenue

RATIO	SUGAR LAND	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
Operating expenditures per capita	\$49	\$59	\$88	\$123
Revenue per capita	\$7	\$10	\$28	\$40
Total revenue to total operating expenditures	15.30%	18.15%	28.40%	33.85%
Total park tax expenditures per capita	\$41	\$36	\$59	\$74

Quantity of Parkland

Sugar Land shows a significantly higher park acreage per 1,000 people than its peers. With 28 parks and 2,224 acres, this is not surprising. This not only ranks Sugar Land in the upper quartile among the peers, but also in the upper quartile (above 16.5 acres per 1,000) of the 2016 national data. The City also ranks high in the number of residents per park and the average acres per park (see Table 4.7, *Quantity of Parkland*).

Table 4.7, Quantity of Parkland

RATIO	SUGAR LAND	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
Acres of parks per 1,000 residents	25.45	3.22	7.22	14.36
Number of residents per park	3,120.57	2,498.90	3,488.26	4,357.22
Average acres per park	79.43	15.53	25.17	41.66

Program Analysis

The data in Table 4.8, *Program Analysis*, reflects the City’s monthly program registration as it compares to peers who most likely register participants on a three- or four-month cycle. The high percentage of fee programs is expected since all of the City’s programs are at indoor centers that require a membership. The practice of conducting programs only at indoor facilities and the low ratio of building to park attendance may have an impact on revenue generation and public support for funding initiatives.

Table 4.8, Program Analysis

DESCRIPTION	SUGAR LAND	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
Number of participants per program	36.3	59.44	228.8	589.58
Ratio of fee programs to all programs	100.00%	45.48%	72.50%	91.50%
Ratio of building to park attendance	18.30%	38.30%	44.90%	90.18%



The City’s recreational programs are largely provided at the Imperial Park Recreation Center and the T.E. Harman Senior Center.

Operations Budgets

With a 2016 budget of over 4.2 million dollars, Sugar Land is well below the lower quartile of the peers. Despite that ranking, the distribution of its expenditures is well balanced. The higher operational budget numbers tend to indicate a department that is more resource-based than recreation program-based. The last row in Table 4.9, *Operations Budgets*, shows the actual earned revenue for 2016. Once again, Sugar Land is lower than the peers.

Table 4.9, Operations Budgets

DESCRIPTION	SUGAR LAND	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
Agency's total annual operating expenditures	\$4,242,721	\$6,568,167	\$7,201,587	\$11,763,774
Percentage of agency's total operating expenditures				
a. Personnel services	50.00%	49.30%	55.00%	66.50%
b. Operating expenses	49.00%	26.50%	35.00%	46.50%
c. Capital expense not in CIP	1.00%	1.00%	3.85%	7.30%
d. Other		0.00%	1.00%	2.15%
Agency's total annual non-tax revenues	\$647,690	\$1,056,649	\$2,210,714	\$3,436,572

Capital Budget

Sugar Land's PARD capital budget for both the next five years and for fiscal year 2016 show a Department moving forward to develop a variety of parklands and facilities. In both categories, the PARD is highly ranked. Also note that the percentage of projects dedicated to new development for Sugar Land is 100 percent, while most other peers project significant capital dollars being spent on renovation (see Table 4.10, *Capital Budget*).

Table 4.10, Capital Budget

DESCRIPTION	SUGAR LAND	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
Agency's total capital budget for the next 5 years and total capital budget for the fiscal year:				
a. Capital budget for next 5 years	\$22,329,700	\$3,112,500	\$9,400,000	\$18,946,804
b. Capital budget for the fiscal year	\$4,083,400	\$439,875	\$1,206,000	\$8,237,500

System Needs

Personnel

In terms of personnel, Sugar Land is below the lower quartile for full-time employees but seasonal or temporary workers work a greater number of hours than in the peer communities. Thus, the full-time-equivalents are within the central quartiles (see Table 4.11, *Personnel*). Only three of the 15 peers have collective bargaining requirements, which can increase the costs of operation for those departments.

Table 4.11, Personnel

DESCRIPTION	SUGAR LAND	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
Number of funded employees at the agency:				
a. Number of full-time employees	30	34	55	81
b. Number of non-full-time employees	27	76	138	293
c. Total annual hours worked by non-full-time employees	26,973	11,125	24,758	95,470
d. Total number of full-time equivalent employees (FTEs)	43	42	81	111

Indoor Recreation Space

With only two dedicated indoor recreation buildings, representing 27,500 square feet, Sugar Land is significantly under the lower quartile among peers (see Table 4.12, *Indoor Recreation Space*). Note that the peers have more and larger facilities. The community may need additional indoor or covered recreational spaces. This could be offset by using school facilities for recreational purposes under a joint use agreement.

Table 4.12, Indoor Recreation Space

DESCRIPTION	SUGAR LAND	LOWER QUARTILE	MEDIAN	UPPER QUARTILE
Number of buildings and the square footage of the buildings operated by the agency:				
a. Number of operated buildings	2	5	6	11
b. Square footage of operated buildings	27,500	58,000	72,107	160,000

Conclusion

In terms of quantity of parkland, responsibilities, facilities, and activities (see Appendix E, *Peer Community Comparisons*), Sugar Land PARD seems to be operating at a consistent level with its peer communities. In terms of capital budget, it is also clear that new development and expansion of the above functions are a priority for the PARD and the City.

The primary area of need for Sugar Land is the operating budget as it relates to the anticipated program and parkland expansion and development. Additional personnel, materials, and equipment will be needed to balance the workload as new facilities and programs are added. It appears from the data collected that, at minimum, new facilities and revenue streams would be logical goals upon which to build future strategies.