



PARKS + RECREATION

INTRODUCTION

Parks and recreation offerings have a profound impact on the actual and perceived quality of life in a community. As cities compete for residents and business, a high-quality parks and recreation system can be an attractive amenity and can provide an edge over similar communities. Parks and recreation planning requires significant foresight because once land has been converted to buildings and other development, it is difficult and expensive, if not impossible, to revert land back to open space.

A well-developed park system can provide numerous benefits to a community. Open space and some parkland can provide a permeable surface where stormwater can be absorbed, reducing the cost and negative impacts of stormwater runoff. Trees and foliage can help improve air quality and reduce the heat-island effect caused by buildings and paving during the summer months. By preserving elements of the natural environment within the built environment, a community can not only improve the quality of life for its residents, but also save money in the long term.

Ankeny has already proven to be a community valuing parks and open space. As Ankeny faces significant population increases, careful planning will be required to ensure future development, both residential and commercial, receives an adequate level of service in parks, recreation, and trails. Ideally, these future parks, recreation, and trails should be connected to the larger, existing system to provide access to the greatest number of people and to provide a consistent, connected system for both residents and visitors.

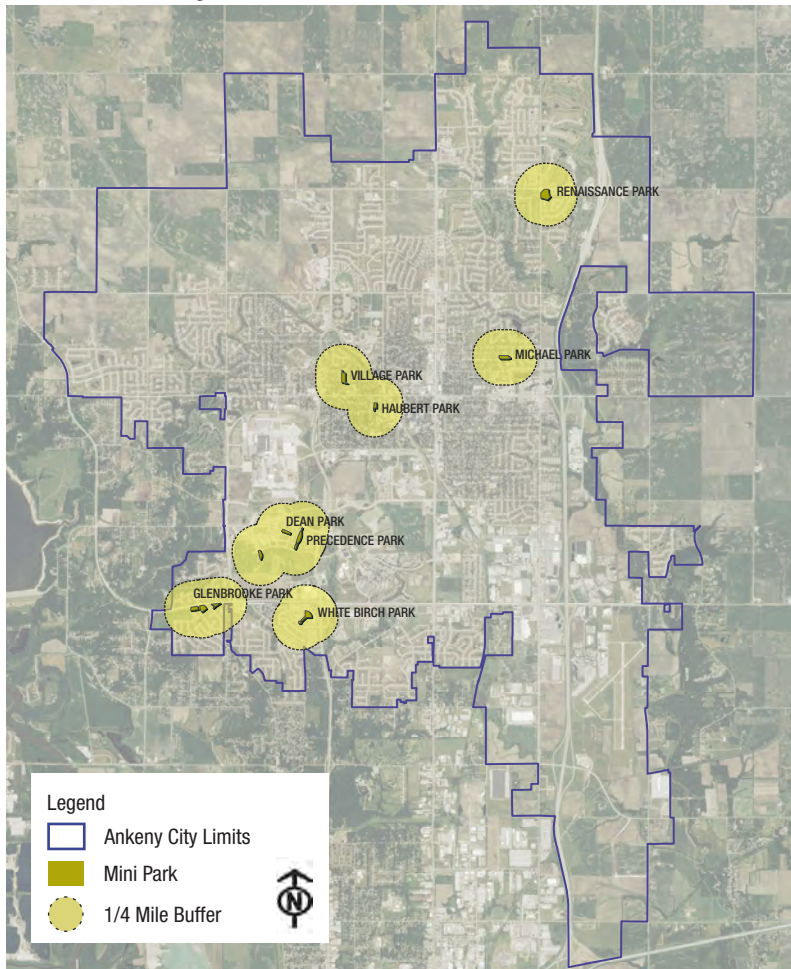
Understanding the existing system will be beneficial in making future recommendations and changes. A thorough examination of the park system requires an understanding of the current level of service, geographic distribution, and quality of the parks system available. Then, with future population projections in mind, estimates for maintaining or improving the current level of service (LOS) must be outlined.

2007 PARKS AND FACILITIES PLAN

In 2007, the City of Ankeny hired a consulting firm to create a Parks and Facilities Plan. Through this process, a number of parks and recreation-based goals were identified and include:

- Develop a second aquatic facility that provides multi-generational recreational opportunities
- Provide recreational facilities to meet the needs of newly developing areas
- Distribute active recreation use across the geographical area of the city, guarding against concentration of park resources in any single section of the city
- Develop parks that provide greater flexible open spaces
- Identify a location for a 30 or 40 acre community park
- Provide an equitable mechanism for establishing service standards in growth areas and financing park acquisition and development
- Balance active and passive recreation opportunities
- Use parks and open spaces to encourage

FIGURE 6.1 Ankeny Mini Parks + Quarter-Mile Service Areas



neighborhood investment and to help reinforce Ankeny's urban form

- Develop a park system that promotes and supports a live, work, and play lifestyle.
- Connect Ankeny to regional trail system

PARK CATEGORIES

Generally, parks are classified into four or five different categories including: Mini Parks, Neighborhood Parks, Community Parks, Greenways, and Special Use Parks.

MINI PARKS

Mini Parks are generally characterized by a combination of their size and function. These parks are small, ranging from 2,500 square feet to one or two-acres. Given their size, the service area for a mini-park is localized to only around a quarter-mile radius. Since mini parks serve the immediate area, they do not generally offer off-street parking. The function of the park is specific to a certain kind of use whether active or passive. Some may contain a play structure for use by the local children, while others may contain only benches and public art for low-impact, passive activity.

Ankeny has nine mini parks within the city limits. The mini parks are predominantly located in the southwest section of Ankeny west of S. Ankeny Blvd and south of 1st Street. Ankeny's mini parks are:

- Dean Park
- Estates Park
- Glenbrooke Park
- Haubert Park
- Michael Park
- Precedence Park
- Renaissance Park
- Village Park
- White Birch Park

Mini parks are a creative way to use a small or unusual space, provide a specific use or service, or provide a place for activity without requiring residents to cross busy streets. They can help improve a neighborhood's quality of life. However, mini parks are also expensive to maintain compared to the benefit and size of larger parks.

NEIGHBORHOOD PARKS

Neighborhood Parks generally range in size

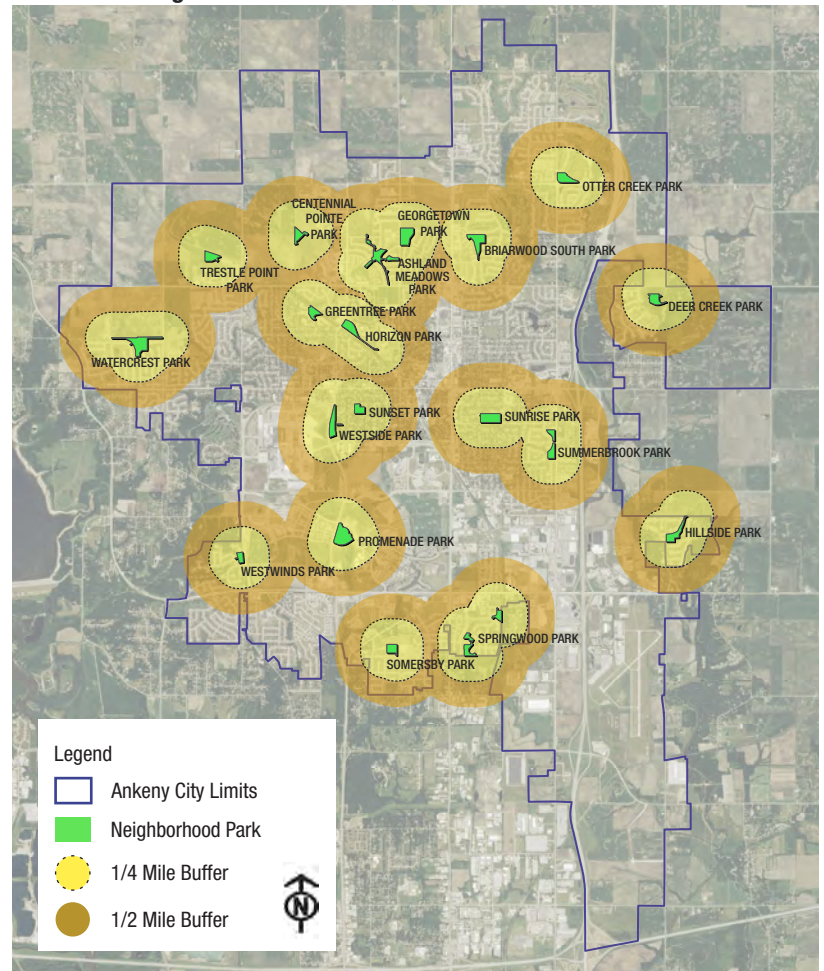
from around 5-15 acres. The service area for a neighborhood ranges from a quarter to a half-mile. They are meant to serve the neighborhood in which they are located. Active recreation is typical on sites with small fields/courts, playgrounds, or other active opportunities. Passive recreation can also occur via trails for walking, benches for resting, and areas for picnics to occur. Off-street parking is generally not recommended on site, but this will vary based on intensity of use.

Neighborhood Parks are prominent in the City of Ankeny parks and recreation system. There are 19 neighborhood parks in Ankeny. Ankeny's neighborhood parks are:

- Ashland Meadows Park
- Briarwood South Park
- Centennial Pointe Park
- Deer Creek Park
- Georgetown Park
- Greentree Park
- Hillside Park
- Horizon Park
- Otter Creek Park



FIGURE 6.2 Neighborhood Parks + Quarter-Mile / Half-Mile Service Areas



- Promenade Park
- Somersby Park
- Springwood Park
- Summerbrook Park
- Sunrise Park
- Sunset Park
- Trestle Point Park
- Watercrest Park
- Westside Park
- Westwinds Park

COMMUNITY PARKS

Community Parks serve the entire community or several neighborhoods and are generally larger than neighborhood parks. The service to the community can come from their sheer size or by their function. They range in size from 16 to 100 acres with a service area of around a 1-2 mile radius. Community parks will often have on-site parking options. The community parks in Ankeny are:

- Chautauqua Park
- Crestbruck Park
- Hawkeye Park
- North Creek Park
- Sawgrass Park

GREENWAYS

Greenways are areas of more natural, undisturbed park land meant to provide trails and linkages for humans and wildlife. They are often used to connect different parks or parts of the community together via a trail or path. The trails often serve active modes of transportation such as walking, jogging, biking, or roller blading. Some greenways may include some active uses such as a small playground, but generally these areas double as a place of land conservancy and remain relatively undisturbed and natural. Ankeny's greenways vary in size and geographic location, but tend to exist on the outer edges of the city limits. The greenways in Ankeny are:

- Camden West Greenway
- Cherry Glen Greenway
- Clover Ridge Greenway
- Deer Creek Greenway
- Diamond Hills Greenway
- Northgate East Greenway
- Prairie Lakes Greenway
- Rock Creek Greenbelt
- Saylor Creek Greenway
- Signature Greenway

- Twin Gates Greenway
- Vintage Greenway
- Wildflower Greenway
- Woodland Reserve Greenway

SPECIAL USE PARKS

Special Use Parks are areas in which a specialized or single-purpose activity takes place. The areas may be golf courses, zoos, amphitheaters, band shells, or historical areas. In the case of Ankeny, this also includes large-scale high-activity fields and courts like those present in the Prairie Trail Sports Complex. Since the designation is based on use and not size, there is no set acreage minimum or maximums as these numbers will vary considerably. The special use parks identified in Ankeny's park system include:

- Ankeny Arts Center
- Ankeny Dog Park
- Ankeny Market Pavilion
- Cascade Falls Aquatic Center
- Heritage Park
- Miracle League Park
- Otter Creek Golf Course
- Outdoor Education Center

FIGURE 6.3 All Parks by Category + Greenways - Ankeny, Iowa

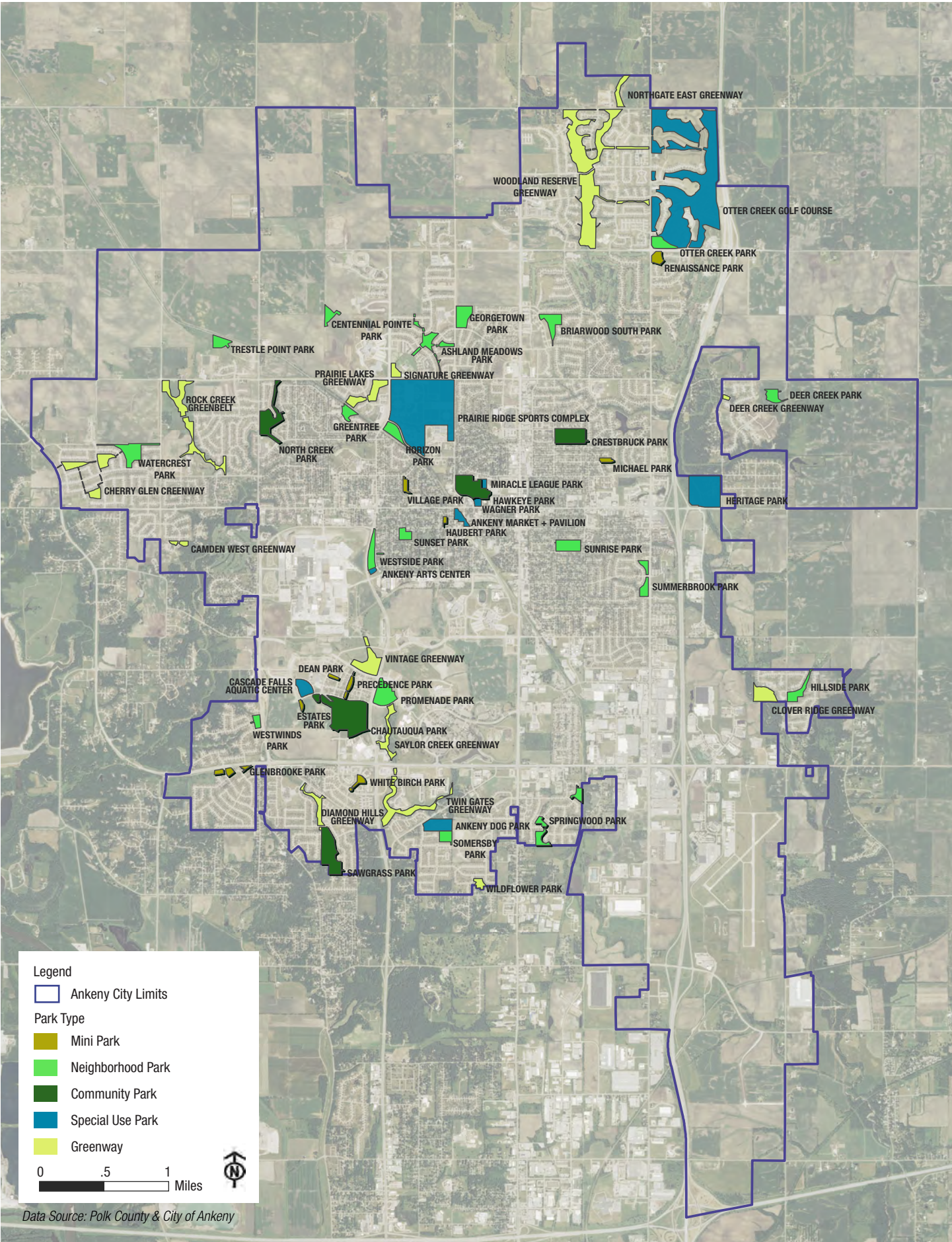


FIGURE 6.4 Parks + Trails - Ankeny, Iowa

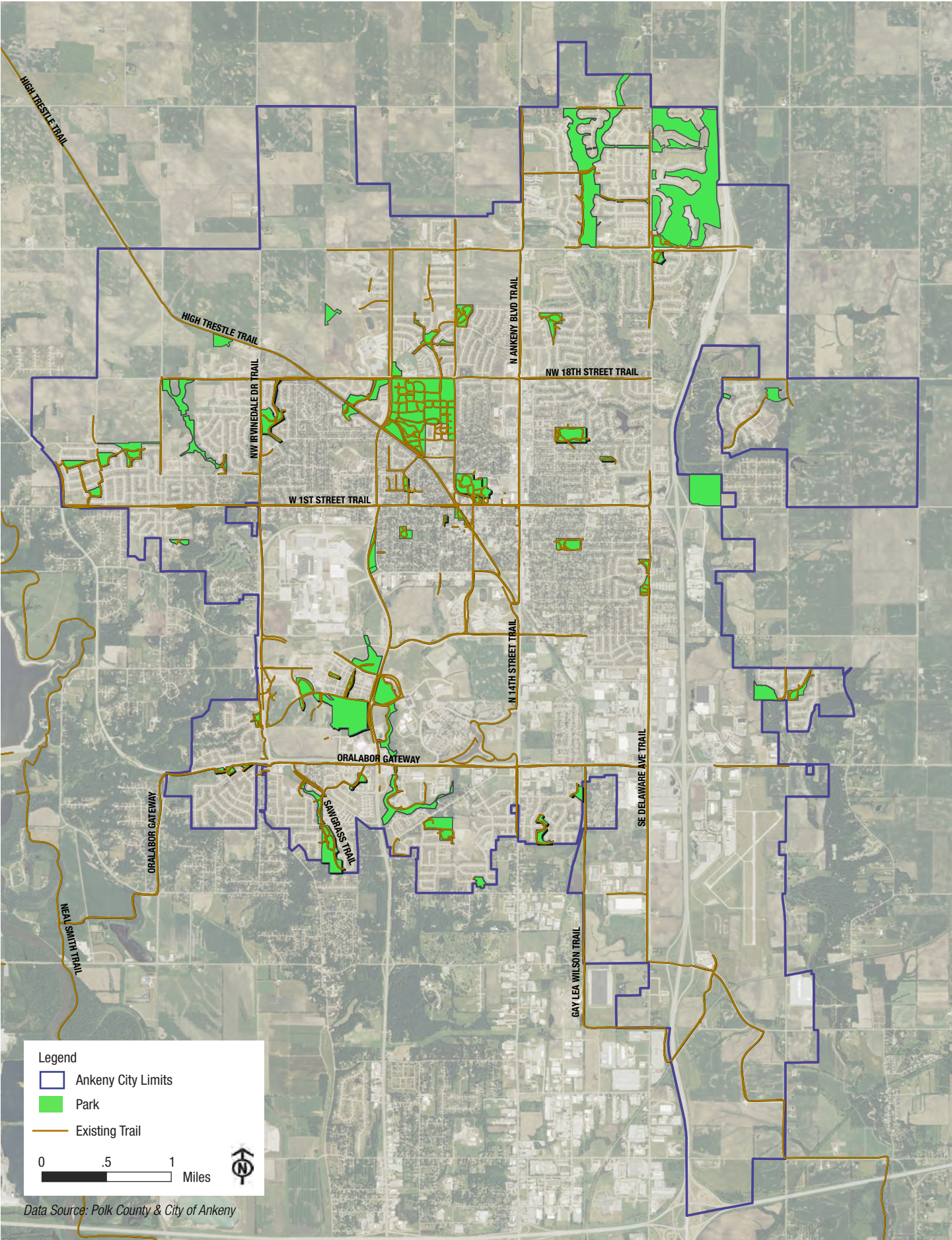
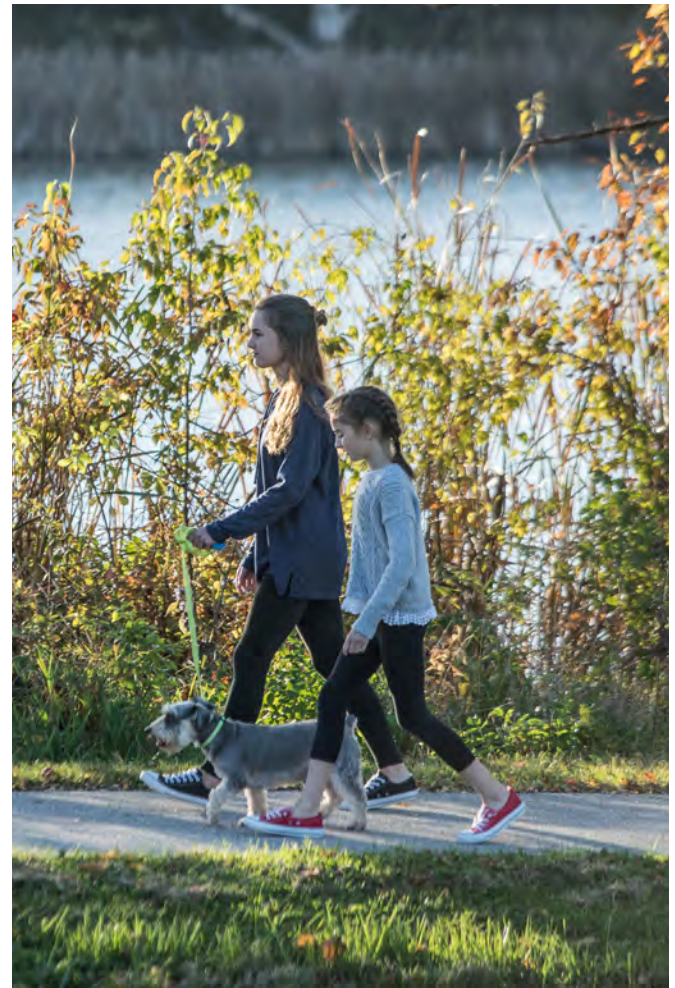
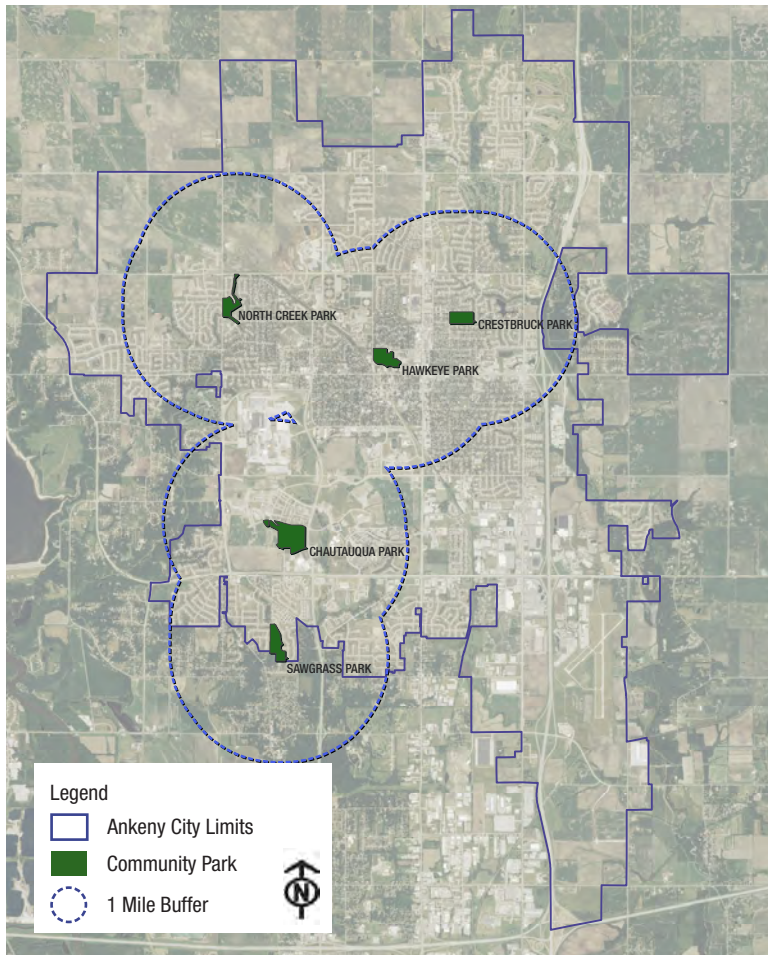


FIGURE 6.5 Community Parks + One-Mile Service Areas



- Prairie Ridge Aquatic Center
- Prairie Ridge Skate Park
- Prairie Ridge Sports Complex
- Wagner Park

One of the larger special use parks is the Prairie Ridge Sports Complex located just south of NW 18th St. This large multi-use sports complex has a wide variety of amenities offered to users including: softball fields, lacrosse, baseball fields, and soccer fields. The complex is extremely popular, leading some to believe an additional large-scale sports complex is needed to keep up with the demand for programmed recreation.

TRAILS

Ankeny has a number of local and regional trails running through the community and just beyond. The location of the trails can be viewed on Figure 6.4.

One popular trail with its trailhead in Ankeny is the High Trestle Trail. The High Trestle Trail is a 25.6 mile trail beginning in Ankeny, Iowa and connects five towns and four counties. The trailhead is located on W. First Street with

parking available at the Ankeny Market and Pavilion.

Near the SW edge of Ankeny is the Neal Smith Trail which has segments along the Des Moines River. There is a connection to this trail through the Oralabor Gateway Trail which connects to the State Street Trail. The connectivity of the trail system is fairly cohesive. There are long trails running along many of the arterial roads of Ankeny. However, there are several areas where trails are not fully connected and may require connection extensions.

LEVEL OF SERVICE ANALYSIS

The City of Ankeny has a wide variety of park types in their inventory. The National Recreation Parks Administration (NRPA) and several other parks and recreation/planning authorities and manuals have prescribed a number of recommended level of service (LOS) guidelines for park land acres per 1,000 residents. Given the estimated total acres of different park land categories located in Ankeny, a level of service analysis was performed. The overall results are outlined in the chart on the following page.

MINI PARKS

A general LOS for mini parks is approximately .25 to .5 acres per 1,000 residents. The total acreage of mini park land in Ankeny is 22.1 acres. Given Ankeny's 2015 estimated population of 56,764, the LOS provided by Ankeny mini parks is around 0.39 acres per 1,000 residents. This is within the general LOS estimate for communities. However, since most of the mini parks are clustered in one section of the city, the LOS across the entire City of Ankeny is likely lower for mini parks.

Mini parks have a service area of around a quarter-mile. An estimate of the residential population served can be determined based on the number of household units located within a quarter-mile buffer of each mini park. Calculations were made that determined the number of housing units within a quarter-mile buffer of each mini park. Mini Parks served the following housing units:

- Single Family: 1,986 units
- Townhouse/Duplex: 666 units
- Apartment: 305 units
- Other: 8 units

FIGURE 6.6 Level of Service Analysis by Park Category - Ankeny, Iowa

	Number of Parks	Actual Acres	Acres/1,000 (LOS)	Standard LOS	NRPA LOS	Recommended Acres	Status	Surplus +/- Deficits -
Mini Parks	9	22.1	0.39	.25 to .5	.5	14.2 to 28.4	Above	None
Neighborhood Parks	19	160.64	2.83	1.25	2	71.0 to 113.5	Above	None
Community Parks	5	126.2	2.22	5.5	8	312.2 to 454.1	Below	186 to 327
Golf Courses	1	196.7	3.46	4.5		255.4	Below	58.7
Special Use Parks	8	199.7	3.52	---	---	---	---	---
Greenways	14	240.8	4.24	---	---	---	---	---
Total	56	945.0	16.66	---	10.5	596.0	Above	None
Total (No Golf)	55	748.4	13.18	---	10.5	596.0	Above	None
Total (No Greenways)	42	704.2	12.41	---	10.5	596.0	Above	None
Total (No Golf / Greenways)	41	507.6	8.94	---	10.5	596.0	Below	88.4

Source: Polk County Parcel Data, NRPA standards, Planner's Estimating Guide

The 2015 American Community Survey (ACS) 5-Year Average Household size for Ankeny of 2.74 people/unit. Using this figure, an estimated total residential population served in the half-mile service area for mini parks was 8,124.

NEIGHBORHOOD PARKS

The LOS guidelines for neighborhood parks is 1.25 to 2 acres per 1,000 residents. Ankeny currently has 160.64 acres of neighborhood park land equaling 2.83 acres per 1,000 residents of Ankeny. This puts Ankeny above the recommended guidelines for neighborhood parks. Based on Ankeny's population, the guidelines call for between 71.0 to 113.53 acres of neighborhood park land giving Ankeny a surplus of between 47.11 to 89.64 acres.

The neighborhood parks located in Ankeny are clustered in the central and north central parts of Ankeny. There is a chain of neighborhood parks transecting the community from the central eastern section to the northwest.

Given the service area for neighborhood parks of between a quarter and a half-mile,

the estimated number of residential units was calculated for a quarter and half-mile radius. The housing units served by neighborhood parks were:

- Single Family: 5,206-9,798
- Townhouse/Duplex: 1,336-2,256
- Apartment: 790-1,768
- Other: 171-412

Based on the average household size of 2.74 people per unit, an estimated population served of between 20,558 and 39,001 was determined. This is roughly half the population of Ankeny.

COMMUNITY PARKS

The LOS guidelines for community parks are between 5.5 to 8 acres per 1,000 residents. Meeting the recommended LOS guidelines requires Ankeny to have between 312.2 to 454.1 acres. The actual number of acres of community park land is 126.2 acres. This places Ankeny below the recommended acres for community parks with a deficit of between 186 to 327 acres. This would equate to 3 or 4 large community parks. However, Ankeny

is above average on standard acres for mini parks and neighborhood parks; this may end up serving a larger population than a typical neighborhood park because of a lack of community parks.

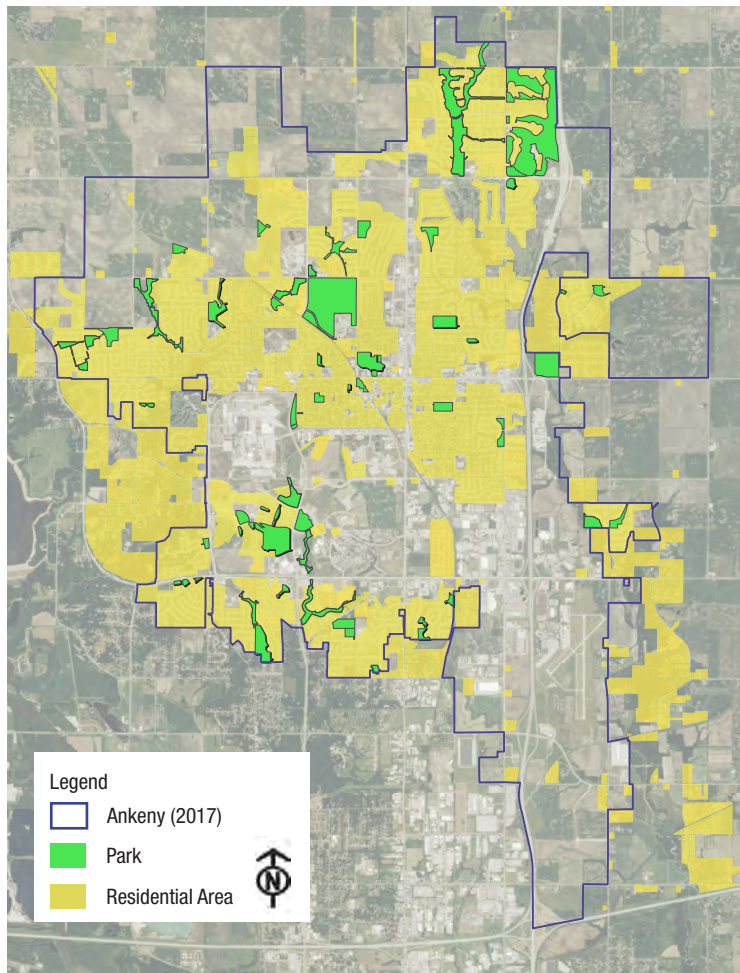
The community parks in Ankeny are spread throughout the SW, NW, and NE sections of Ankeny. The SE quadrant, featuring a large amount of interstate and airport land does not have a neighborhood or community park. The SW quadrant of Ankeny has several community parks located there, the most of all other areas of Ankeny.

Community parks can provide park access for a larger service area of around one to two miles. Community Parks served the following housing units:

- Single Family: 9,193-12,874
- Townhouse/Duplex: 1,888-3,272
- Apartment: 2,028-2,434
- Other: 429

Based on the number of housing units and an average household size in Ankeny of 2.74, the

FIGURE 6.7 Parks + Residential Areas



estimated population living within one and two miles of the community parks was determined to be between 37,094 and 52,085.

PUBLIC GOLF COURSES

Ankeny has one public golf course, the Otter Creek Golf Course. The approximate total acres of public golf course available is 196.67 acres. Given Ankeny's population, this equals a LOS of 3.46 acres per 1,000 residents. The LOS guideline for a public golf course is 5.5 acres per 1,000 residents, placing Ankeny below the recommended guideline. However, there are two additional private golf courses available in Ankeny.

GREENWAYS

Ankeny currently has 240.8 acres of land classified as a greenway or nature preserve. Based on the population, this equals a LOS of 4.24 acres per 1,000 residents. There are no specific guidelines for the LOS recommended for greenways, but the estimated population served by the greenways can be determined. Assuming residents living within one-quarter to one-half mile from the greenways are the most frequent and common users of a

greenway, the estimated number of residential units in the service area can be calculated. Greenways in Ankeny served the following number of housing units:

- Single Family: 3,979-6,660
- Townhouse/Duplex: 1,356-2,165
- Apartment: 430-550
- Other: 193-195

Some greenways, can attract people from around the community or region and so these numbers may be underestimating the true service area of the greenway system.

TOTAL PARK LAND

The total calculated acres of park land in Ankeny is around 946.5 acres. This is an overall LOS of 16.67 acres per 1,000 residents. The recommended acres of park land per 1,000 residents according to the NRPA is 10.5 acres per 1,000 people. This places Ankeny's overall park land LOS above the recommended standard. The LOS was also calculated without the golf course and without the greenways. When both the golf course and greenways are removed from the LOS, Ankeny

is slightly deficient in total parkland acres by 81.09 acres.

In assessing the collective service areas of each park type in total, an estimated number of housing units was calculated for the entire park system. Ankeny parks served the following housing units:

- Single Family: 13,731
- Townhouse/Duplex: 3,694
- Apartment: 2,434
- Other: 429

Based on average household size of 2.74 for Ankeny households, an estimated population served by the current park system was determined to be 55,592. This is approximately 97.9% of Ankeny residents based on 2015 Special Census population.

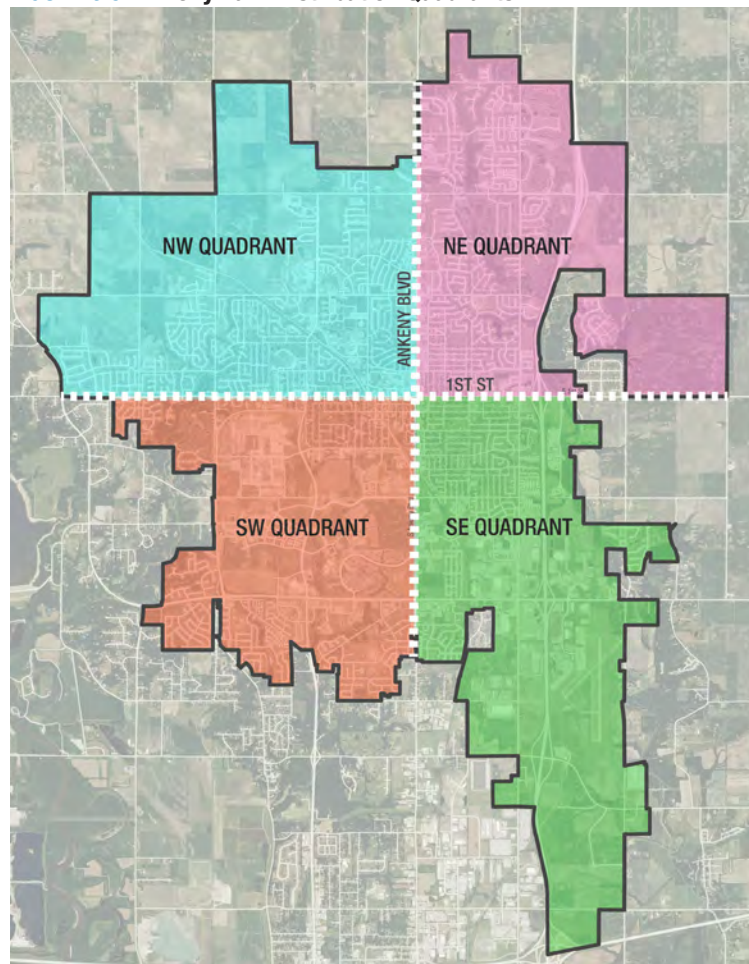
It is important to keep in mind these numbers are estimates and it is possible that more or fewer residents actually feel as if they are being served by the current park system. Variables impacting a residents perceived service level could be:

FIGURE 6.8 Housing Units Served by Park Category

	Housing Units	Average Per Household*	Estimated Population Served
Mini Parks			
Quarter-Mile Service Area	2,965	2.74	8,124
Neighborhood Parks			
Quarter-Mile Service Area	7,503	2.74	20,558
Half-Mile Service Area	14,234	2.74	39,001
Community Parks			
One-Mile Service Area	13,538	2.74	37,094
Two-Mile Service Area	19,009	2.74	52,085
Greenway			
Quarter-Mile Service Area	5,958	2.74	16,325
Half-Mile Service Area	9,570	2.74	26,222
All Parks			
Combined Service Areas	20,289	2.74	55,592

Source: *U.S. Census Data 2015, Polk County Parcel Data, NRPAs standards, Planner's Estimating Guide

FIGURE 6.9 Ankeny Park Distribution Quadrants



- Presence of a busy arterial street separating their residence from the park
- Park that is too busy for its size.
- Feeling as if the programs offered do not provide enough diversity in activity.

The public participation phase of the comprehensive plan included questions about the parks and recreation offerings of Ankeny.

PARKS PUBLIC INPUT

There were several questions on *The Ankeny Plan 2040* survey offered as part of the public participation portion of the Comprehensive Planning process.

- Approximately 20% of survey respondents listed the "Availability of parks, recreation, and open spaces" as one of the three most important reasons they chose to live in Ankeny
- When survey respondents were asked to pick changes they think would improve the quality of life in Ankeny, 27% listed "Improved bike and pedestrian facilities."

- There was strong agreement, with 80% either strongly agreeing or agreeing, that Ankeny needs more parks, recreation, and open space. Similarly, 79% agreed that Ankeny needs more sidewalks and trails.

- Another 77% of survey respondents indicated they agree Ankeny needs, "More protection of natural resources and preservation of open space."

Ultimately, the survey indicated Ankeny residents value parks, trails, and open space and would like to see more offerings as Ankeny continues to grow. There is an apparent strong support for the City investing in this type of amenity.

Other public engagement efforts revealed that Ankeny residents would like to see community gardens become a part of the parks and recreation system. Community gardens provide access to fresh and nutritious food for the community and provide a lesson for children about the source of their food.

DISTRIBUTION ANALYSIS

Beyond a level of service analysis or calculation of the number of residents located within the service area of a park, another way to assess the current parks and recreation system is to look at the geographic distribution of parks and recreation amenities in Ankeny. Generally, parks should exist around residential areas. Figure 6.7 shows the location of the residential areas of Ankeny and the parks system. In general, the park space does appear to be near to the residential areas. To further analyze the distribution of parks, Ankeny was assessed by four general quadrants or sections that are consistent with the quadrants identified in the 2007 parks and facilities plan. Figure 6.9 above shows the quadrants.

- The northwest quadrant includes all areas west of N. Ankeny Blvd and north of 1st St
- The southwest quadrant of Ankeny includes all land south of 1st Street and west of S. Ankeny Blvd.
- The southeast quadrant includes land east of S. Ankeny Blvd and south of 1st St. This area is the location of significant amounts

FIGURES 6.10 - 6.13 Quadrant Analysis Results by Quadrant

NORTHWEST QUADRANT

Park Type	Acres
Mini	2.4
Neighborhood	63.3
Community	38.7
Greenway	62.5
Special Use	137.3
Total Acres	304.2
Estimated Population	17,807
Estimated LOS	17.08

SOUTHWEST QUADRANT

Park Type	Acres
Mini	13.2
Neighborhood	36.9
Community	70.5
Greenway	62.3
Special Use	26.2
Total Acres	209.17
Estimated Population	14,188
Estimated LOS	14.7

NORTHEAST QUADRANT

Park Type	Acres
Mini	6.53
Neighborhood	24.1
Community	17
Greenway	104.6
Special Use	232.8
Total Acres	385.0
Estimated Population	13,785
Estimated LOS	27.9

LOS (no golfcourse) 13.7
LOS (no golf course / WR* 6.1

SOUTHWEST QUADRANT

Park Type	Acres
Mini	0
Neighborhood	35.3
Community	0
Greenway	11.4
Special Use	0
Total Acres	46.65
Estimated Population	9,823
Estimated LOS	4.7

LOS (w/ Carney Marsh) 8.6

of right-of-way (ROW) and other government owned land such as the Ankeny Regional Airport.

- The northeast quadrant is all areas of town north of 1st St and east of N. Ankeny Blvd.

Reviewing service by quadrants helps determine how well each area is served. This information can be used to identify where to focus future park efforts. This should be considered in conjunction with reviewing where current and future residential areas of town will likely be located. Summaries of the results are above.

NORTHWEST QUADRANT

The northwest quadrant contains one mini park, seven neighborhood parks, two community parks, four greenways, and three special use parks. These parks have a total acreage of approximately 304.2.

There are approximately 6,499 households located within the northwest quadrant of Ankeny. Given the 2015 ACS 5-Year estimate for average households of 2.74 per unit, this equates to a population of around 17,807.

This population leads to an estimated level of service for total park space of 17.1 acres per 1,000 residents. This is a high overall level of service for park space.

SOUTHWEST QUADRANT

The southwest quadrant contains six mini parks, five neighborhood parks, two community parks, six greenways, and four special use parks. These parks account for approximately 209.17 total acres.

There are approximately 5,178 households located within the southwest quadrant of Ankeny. Given the average household size of 2.74, this equals approximately 14,188 residents.

This population leads to a level of service for the southwest quadrant of approximately 14.7 acres per 1,000 residents. This is high, but lower than the total level of service for all of Ankeny when both golf courses and greenways are considered in the total parkland.

SOUTHEAST QUADRANT

The southeast quadrant contains zero

mini parks, four neighborhood parks, zero community parks, one greenway, and zero special use parks. The total combined number of acres is 46.65 acres. If the nearby, but county-owned nature preserve Carney Marsh is considered, there are two greenways and the total acres of parkland is increased to 84.54 acres.

There are approximately 3,585 households located within the southeast quadrant of Ankeny. Based on the average number of people per household, this equals approximately 9,823 residents.

This population leads to a LOS for the southeast quadrant of approximately 4.87 acres per 1,000 residents. This is a low level of service. The LOS increases to 8.6 if the Carney Marsh Nature Preserve is included. Still, this quadrant remains the least served, but is also contains significant amounts of land dedicated to right-of-way (ROW) for Interstate 35 and the airport. Also, the areas with the most residential activity are centered near to the other quadrant boundaries and likely patron other quadrant's parks for recreation.



NORTHEAST QUADRANT

The northeast quadrant contains two mini parks, three neighborhood parks, one community park, three greenways, and one special use park. The northeast quadrant has the public golf course in Ankeny. The total number of park acres in the northeast quadrant is approximately 385.

There are approximately 5,031 households located within the northeast quadrant. Based on the average household size in Ankeny this equates to an estimated population of 13,785.

This population leads to a level of service for the southwest quadrant of approximately 27.9 acres per 1,000 residents. When the golf course is removed from the LOS analysis, the LOS decreases to 13.7. When the large, but mainly undeveloped Woodland Reserve Greenway is removed from the analysis in addition to the golf course, the LOS decreases to 6.1.

SUMMARY

In summary, the geographic analysis of the park system in Ankeny reveals some areas of

potential surplus and deficits in the Ankeny parks system.

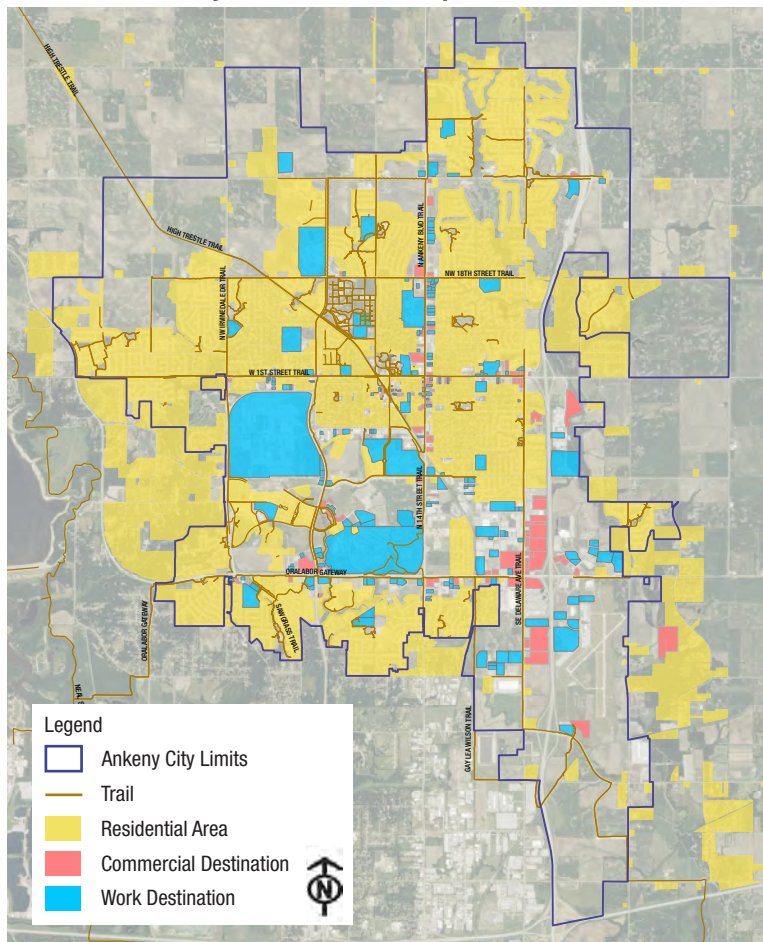
The quadrant with the lowest level of service was the southeast quadrant. The LOS per 1,000 residents was 4.7. As mentioned before, the LOS increases to 8.6 if the Carney Marsh Nature Preserve is included in the analysis. The estimated level of service falls short of Ankeny's overall level of service for parks per 1,000 residents of 16.65. While the LOS is low for this quadrant, the residential area of the quadrant is close to both the boundaries with the southwest and northeast quadrant and residents may feel served by other quadrant's parks. Also, this quadrant is more industrial which is often incompatible with parkland.

The southwest quadrant has the highest total number of parks within the area with 23 parks. The northwest quadrant also has a large number of parks with 17 total parks. However, the southwest has a large number of smaller mini parks rather than a few larger community parks. The northwest quadrant has a high number of neighborhood parks.

When golf course and greenways are considered in the overall LOS analysis, the northeast quadrant has a high LOS of 27.9. However, it may be unfair to consider the golf course in the LOS analysis for the quadrant as it likely serves all four quadrants as the sole public golf course in Ankeny. When the golf course is removed from the LOS, it decreases to 13.7 which is more in line with other quadrants and Ankeny overall. There might also be an argument for considering the LOS without the Woodland Reserve Greenway because it is less developed than other greenways and may remain undeveloped for quite some time. When both the golf course and the Woodland Reserve Greenway are removed from the LOS analysis, the LOS goes down dramatically to 6.1. The big takeaway from this is not to assume that the northwest quadrant is overly served in parkland compared to other quadrants in Ankeny.

In considering future residential growth in Ankeny, it appears likely residential growth will continue in all four quadrants, but particularly in the northwest and northeast quadrants. The southwest quadrant will run into natural

FIGURE 6.14 Ankeny Trails + Potential Trip Destinations



and environmental growth issues as they run out of undeveloped land and approach other municipal boundaries and Interstate 80. The southeast quadrant will likely continue to see residential growth in the northeastern section of the quadrant, but will be more likely additional employment and commercial uses because of its proximity to the interstate and the proposed Northeast Beltway.

The number of residential units built since 2010 in Ankeny by quadrant was assessed. While all quadrants have had some residential growth, not all have experienced growth in multi-family residential units. The northeast and northwest quadrants experienced the most residential growth with a total unit growth since 2010 of 1,487 and 1,317 units, respectively. The northern and eastern sections of the planning boundary have few impediments to residential growth. It seems likely the location of new residential units will continue to expand northward and eastward past Interstate 35 as the city grows, because of the large swaths of flat terrain available for development.

These areas currently have an adequate level of service for total park space. To maintain this level of service into the future based upon growth projections, care will need to be taken to provide adequate park or open space early on in the process to cut down on the high cost of land in residential developments.

CONNECTIVITY ANALYSIS

The best park systems are those connected through green corridors allowing for the movement of people and local wildlife from one area to the next safely. This connectivity helps provide pedestrian-friendly access for citizens to parks outside their immediate service area, expanding the role and function of a City's parks.

INTERCONNECTIVITY

One way to assess the connectivity of the parks and trail system is to determine the number of parks intersecting with or near to trail connections.

All of the parks but six have a trail either intersecting the park, adjacent to the park, or in close proximity to the park boundaries.

The six disconnected parks are: Camden West Greenway, Wildflower Park, Deer Creek Greenway, Centennial Pointe Park, and Dean Park.

The number of parks without a trail connection decreases to three when a quarter-mile buffer area of each park is taken into consideration. Centennial Pointe Park, Camden West Greenway, and Wildflower Park, the three remaining disconnected parks, have a trail connection between a quarter and a half-mile distance from the park boundaries. Overall, this is a healthy amount of connection between the existing park space.

MISSING SEGMENTS + REGIONAL CONNECTIVITY

Another way to assess the connectivity of the trail system in Ankeny is to look for missing connections or segments of trail cutting off long stretches of trails. There are four main east-west trails stretching through Ankeny from the south to northern most section of town. There are three north-south trail segments running through the expanse of Ankeny. However,

FIGURE 6.15 2040 Growth Scenarios

Scenario	Low	Medium	High
Population	108,000	118,000	130,000

FIGURE 6.16 2040 Future Park Demand by Park Category - Ankeny, Iowa

Park Type	Current Acres	Low Growth	Medium Growth	High Growth
		2040 Recommended Acres	2040 Recommended Acres	2040 Recommended Acres
Mini Parks	22.1	27 to 54	29.5 to 59	32.5 to 65
Neighborhood Parks**	160.6	135 to 216	147.5 to 236	162.5 to 260
Community Parks**	126.2	594 to 864	649 to 944	715 to 1,040
Public Golf Course	196.7	486	531	585
Special Use Parks*	199.7	380*	415*	457*
Greenways*	240.8	446*	487*	537*
Total	945.0	1,134	1,239	1,365
Total (Minus Golf)	748.4	1,134	1,239	1,365
Total (Minus Greenways)	704.2	1,134	1,239	1,365
Total (Minus Golf + Greenway)	507.6	1,134	1,239	1,365

Source: Polk County Parcel Data, NRPA standards, Planner's Estimating Guide
* Demand estimate numbers were used based on maintaining the existing level of service provided in 2017
** Due to Ankeny's park layout, many of the acre demand for community parks will likely be made into neighborhood sized parks. If other park category demand is met, Ankeny will meet overall LOS requirement

the eastern most SE Delaware Avenue Trail has a noticeable segment missing between 1st Street and NW 18th Street. This leaves pedestrians or cyclists with limited options to continue their travels northward.

A significant positive attribute of the Ankeny trail system is its connection to the regional trail network through the Gay Lea Wilson Trail and Neal Smith Trail. The Neal Smith Trail will connect its users all the way to downtown Des Moines. If residential growth in Ankeny continues northward and eastward, existing trail connections would need to be expanded to connect the different sections of the community together. This would require the trail system to cross over or under Interstate 35. There are currently two trail connections across Interstate 35 in the far north and far south areas of town. Future trail systems will need to connect to these crossings.

TRIP DESTINATIONS

Another attribute to consider when assessing a trail system is the trip destinations pedestrians or cyclists might travel to with the trails. When the location of trails is compared

to the residential areas and the commercial areas a pedestrian or cyclist might patronize such as a restaurant, grocery store, or other retail store, it is easier to see the difficulty level for reaching these destinations. Visually, it appears as if the existing trail system does offer connections to the main commercial, school, and work-related trip destinations. The presence of long stretches of trail along arterial roads in Ankeny helps with this sort of connectivity analysis.

This sort of connectivity can provide a strong benefit to residents. If Ankeny residents can use their bike as a way to make small trips to stores, schools, or work, the trail system becomes more than a recreational tool. It is difficult to estimate how many people use the trail system for work or retail trips. However, there is some data available on commuting habits.

According to the U.S. Census Bureau in 2015, 94.7% of Ankeny residents relied on a car, truck, or van to get to work. Of the remaining workers, 3% worked from home, only 0.6% used public transportation, 0.9% walked,

0.4% rode their bike, and 0.4% use another method such as a cab. While this figure is not necessarily surprising, it should be noted the phrasing of this question does not allow for much flexibility for people whose habits may vary seasonally. For instance, some may bike or walk during warmer months, but the question asks how one usually gets to work which may likely be with a car. A resident survey, as part of a larger update of the Parks and Recreation Comprehensive Plan, may provide more insight into the actual purpose of trips made on the trail system in Ankeny. However, it does at least seem possible residents would use the trail for trips to school, retail, or possibly even work commutes.

FUTURE PARKS DEMAND

Ankeny is facing significant increases in population over the next few decades. There are relatively few limits to growth in Ankeny, geographically or otherwise, given Ankeny's location on the edge of the Des Moines metro and the generally flat terrain of the area. Based on the population projections completed as part of the Comprehensive Plan in Chapter 3: Population & Growth, demand

FIGURE 6.15 2040 Growth Scenarios

Scenario	Low	Medium	High
Population	108,000	118,000	130,000

FIGURE 6.17 Low, Medium, + High Growth 2020 + 2030 Future Park Demand Estimates

	Low Growth		Medium Growth		High Growth	
	2020 Recommended Acres	2030 Recommended Acres	2020 Recommended Acres	2030 Recommended Acres	2020 Recommended Acres	2030 Recommended Acres
Mini Parks	15 to 30	20 to 40	16 to 33	23 to 45	18 to 35	26 to 51
Neighborhood Parks	75 to 120	100 to 160	81 to 130	113 to 180	88 to 140	128 to 204
Community Parks	330 to 480	440 to 640	358 to 520	495 to 720	385 to 560	561 to 816
Golf Courses	270	360	293	405	315	459
Special Use Parks	153	204	166	230	179	261
Greenways	212	282	229	318	247	360
Total	630	840	683	945	735	1,071

Source: Polk County Parcel Data, NRPA standards, Planner's Estimating Guide

for total park land by park type was calculated for Ankeny. Figure 6.16 outlines the demand by park type for 2040. Demand was estimated based on the level of service guidelines from practitioners and the NRPA.

Three different 2040 population projection scenarios were picked to calculate various park land demand:

- Low: 108,000
- Medium: 118,000
- High: 130,000

Park land demand by park category was also determined for the years 2020 and 2030 shown in Figure 6.17.

MINI PARKS

Ankeny currently has approximately 26.95 acres of mini parks at a LOS within the standards for a community the size of Ankeny. Given the three different population scenarios, Ankeny would need to accommodate the following total demand:

- Low: 27 to 54 acres

- Medium: 29.5 to 59 acres
- High: 32.5 to 65 acres

However, as noted earlier, maintaining mini parks can strain city resources. Most new parks should fall into the neighborhood park category with a minimum size of no less than 6 acres.

NEIGHBORHOOD PARKS

Ankeny currently has approximately 152.68 acres of neighborhood parks with a LOS within the standards for a community of Ankeny's size. To keep up with the existing LOS and continue to meet the recommended acres as outlined by the NRPA, Ankeny will need to accommodate the following acre total demand:

- Low: 135 to 216 acres
- Medium: 147.5 to 236 acres
- High: 162.5 to 260 acres

COMMUNITY PARKS

Ankeny currently does not meet the recommended guidelines for community park acres for a community the size of Ankeny. To

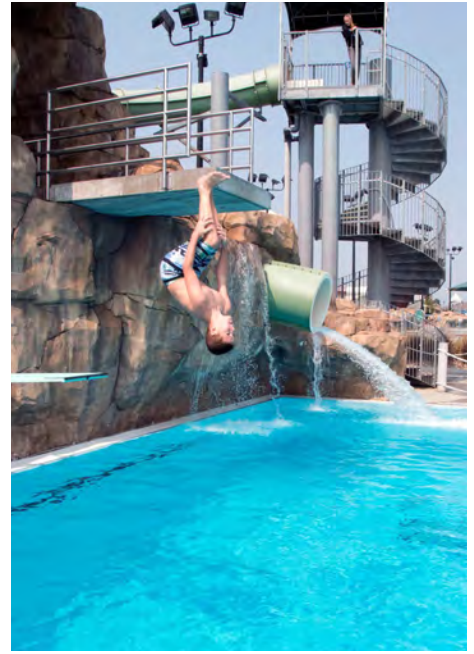
meet future demand at a LOS as outlined by the NRPA and other sources, Ankeny will need to accommodate for the following total demand acres:

- Low: 594 to 864 acres
- Medium: 649 to 944 acres
- High: 715 to 1,040 acres

This would equal 4-5 large community parks or 3-4 very large community parks. Another consideration could be to classify some of the Prairie Ridge Sports Complex, Aquatic Center, or Skate Park as a community park also, which would decrease the deficit in community parks in Ankeny. Also, Ankeny generally emphasizes neighborhood parks over community parks, so these numbers are likely too high.

GOLF COURSES

Ankeny's public golf course, Otter Creek Golf Course, currently provides approximately 196.67 acres of golf course for residents. The recommended level of service for public golf course acres is above the area in Ankeny, with a standard guideline of 4.5 acres per 1,000 residents. Meeting future demand of public



golf course space in Ankeny, the following number of acres would be needed per growth scenario:

- Low: 486 acres
- Medium: 531 acres
- High: 585 acres

SPECIAL USE PARKS

While there are no specific guidelines or standards for the recommended number of acres of special use parks in communities, Ankeny should continue to provide the current LOS being provided by special use parks. Meeting the existing LOS for the future populations, Ankeny will need to add somewhere between the following acres per scenario:

- Low: 380 acres
- Medium: 415 acres
- High: 457 acres

GREENWAYS

There are no specific guidelines for the number of acres dedicated to greenways. To continue to provide the LOS currently provided

by Ankeny for future residents, Ankeny will need to accommodate for the following total acre demand:

- Low: 458 acres
- Medium: 501 acres
- High: 551 acres

TOTAL ACRES

Based on total acres of park land, Ankeny is above the recommended guidelines for total park space given the population. At a minimum, looking forward, Ankeny should meet the following total park demand acres:

- Low: 1,134 acres
- Medium: 1,239 acres
- High: 1,365 acres

FUTURE PARKS

The purpose of the parks and recreation chapter is not to identify specific parcels to use for parks development, but rather to identify area nodes needing parks in the future. The selection of specific parcels to purchase for park land is highly variable based on owner's willingness to sell or dedicate, existing

infrastructure / development, among other factors. While there are general guidelines for what makes land potentially valuable as a park, this report aims more to identify a park land distribution effort based on future residential locations. Figure 6.19 identifies future park nodes around which a future neighborhood park should be located.

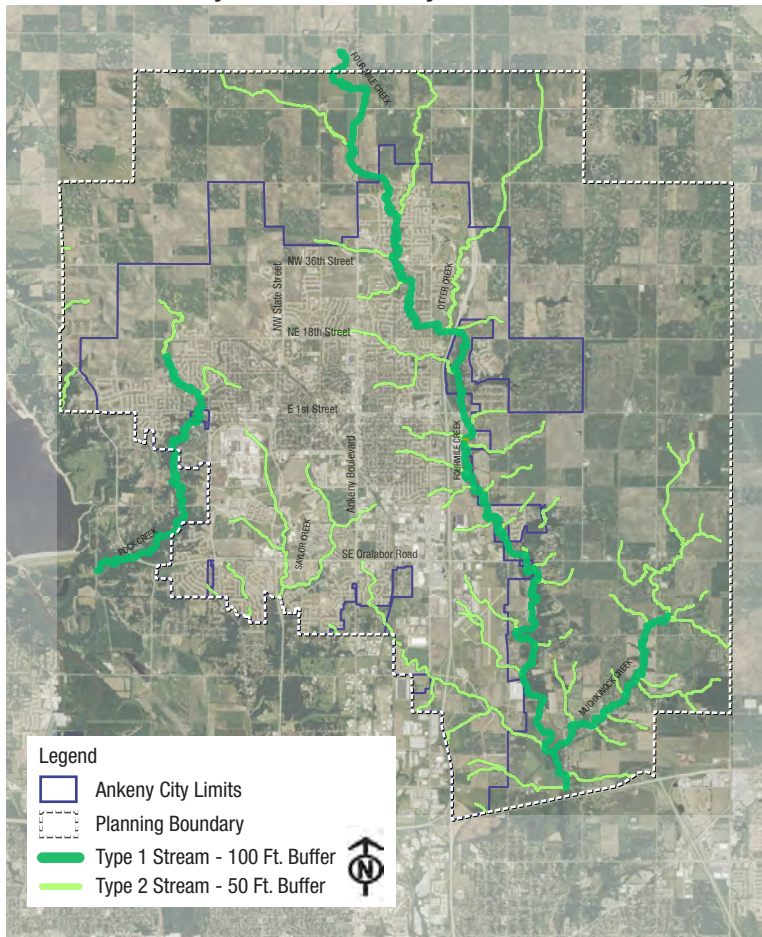
Given the scarcity of trees in the Ankeny planning boundary, it is recommended that areas with historic tree cover be considered for parks. Also, any area identified as a greenbelt. Figure 6.18 identifies areas the City should consider as a greenbelt. The greenbelts were identified by mapping the 50 and 100 foot buffer around most of the Type 1 and Type 2 steams as outlined in Chapter 4: Environment.

FUTURE TRAILS

Ankeny already has a high-quality trail system for its residents and the region. The trail system in Ankeny is composed of regional and local trails that enable residents to get across the community.

The High Trestle Trail should continue to

FIGURE 6.18 Ankeny Greenbelt Buffer System



be a focal point of Ankeny's trail system. Numerous local trails in Ankeny connect to or come near the High Trestle Trail. To provide continuity in the park system and to meet the current and future demand for community-serving park space, Ankeny should consider exploring opportunities for a larger 30-50-acre community park somewhere within the planning boundary. A large community park would help improve the level of service for community parks in Ankeny.

One pressing challenge facing Ankeny in trails expansion will be the issue of growth across Interstate 35. Currently, Ankeny has two trails crossing the interstate in the southern and far northern edge of the city. Long-term, these east-west interstate crossings may not suffice as growth continues eastward and northward. There is a significant cost that accompanies trail crossings at interstates. One possible choice for an additional trail connection across the Interstate 35 corridor is under the bridge over Four Mile Creek near NE 18th Street.

In determining the best future locations of trails, three main issues were considered. First,

new and future developed areas of Ankeny ought to provide the same general level of service for the residents as in the established areas of town. Second, major streets through the new sections of town should incorporate a sidewalk trail alongside to manage pedestrian and bicycle traffic. Lastly, new trails should be to be added along stream buffers as outlined in Chapter 4: Environment.

In 2016, the City of Ankeny authorized the the policies and recommendations laid out in the Four Mile Creek Management Plan completed by Snyder and Associates. Under this 28E Agreement, all communities partaking have agreed to work towards implementing the desired action items outlined in the report. One action item listed is the purchasing of an at least 50 feet buffer alongside Four Mile Creek and eventually its tributaries. Trails in this stream buffer zone would fulfill the dual roles of providing environmental protection and recreational benefit.

To create a comprehensive system of trails, these stream channel trails should be connected with the trail system alongside main thoroughfares. Figure 6.20 shows potential future trail locations. It includes the

expansion of trails into the planning boundary growth area as well as the completion of missing segments within the existing trail system in the city limits.

PARKLAND DEDICATION CODE

The future park level of service in Ankeny will in part rely on having an effective park dedication ordinance in the City code. A balance must be struck between creating valuable, high-quality park land and not placing an undue burden on developers working in the community. The current City code outlining park dedication requirements should be updated to better meet the park needs of future residents. The City should consider updating the parkland dedication ordinance as follows:

1. Park Land Dedication Calculation

A minimum of 6.0 acres of useable park land should be established for every 1,000 residents. Each dwelling should be located within approximately 0.5 miles of a neighborhood park. At the time of final plat approval for all single family detached residential developments including single family subdivisions and at the time of issuance of a building permit for all townhome developments, apartments and condominiums, park land shall be dedicated at the following rate:

- Single Family Detached Residential at 2.7 persons per unit¹ = 590 sq. ft. per unit
- Single Family Attached Residential at 2.10 persons per unit² = 457 sq. ft. per unit

¹2010 U.S. Census average household size of owner-occupied units

²2010 U.S. Census average household size of owner-occupied units

2. Park Land Dedication Location and Standards

Land dedicated for park land shall be located within the same neighborhood park service area (as identified in the City's park service map) for which the subject development is located. The specific location of the land to be dedicated shall be acceptable to the City and shall be located and planned with future park land dedications to create a neighborhood park site no less than 5 acres in size.

All land to be dedicated to meet this park land dedication requirement shall be useable park space as determined by the City, shall not be located within any floodplain, shall not contain any areas for storm water detention, and shall have cross slopes no greater than 5%.

The dedicator of park land shall be responsible for rough grading, stabilization, and seeding of the park land and providing paved public street access, sanitary sewer services, and water service to the property.

3. Alternate Method of Meeting the Park Land Dedication Requirement

In such situations as determined by the City where all or a portion of land for a neighborhood park cannot be dedicated, the developer shall construct or otherwise complete park improvements within the neighborhood park service area equal to the value of the required park land dedication. The value of these improvements shall be based on the fair market value of the land to be dedicated. Subject to approval of the City, park improvements may include construction and installation of trails, parking lots, playground equipment, park shelters, tennis courts, basketball courts, ball fields and appurtenances, and landscaping. The developer shall provide written proof of the land's value and written estimates of the costs of the park improvements.

4. Greenbelt Dedication Calculation and Credit

At the discretion of the City, all development, including residential, commercial, and industrial, including land identified on the City's greenbelt map as future public greenbelt shall be dedicated to the City at the time of development.

The dedicator of said greenbelt land may request a credit from the City toward a current or future park land dedication requirement at the following conversation rate:

- 1 acre of greenbelt dedicated to the City shall be equivalent and worth .10 acres of park land dedication.

If the dedicator of greenbelt land does not need or want this park land credit, said credit may be sold or transferred to another developer to apply as credit for a current or future park land dedication requirement. Written notice and copies of a transfer agreement shall be provided to the City as record of all credits transferred or sold to another party.

5. Greenbelt Dedication Standard

Prior to dedication of any greenbelt to the City, the developer dedicating the land shall have an engineer complete an analysis of the stability of all drainageways within the greenbelt to be dedicated and shall complete any improvements determined necessary to prevent or stop drainageway erosion and maintain long-term bank stability.

6. Park Land and Greenbelt Dedication Agreement and Surety

At the time of development, the developer shall enter into a written agreement with the City to detail the park land dedication, greenbelt dedication, and/or park improvement. Depending on the timing of the dedication or park improvement, adequate surety may need to be given to the City to ensure completion of the dedication or improvement.

FIGURE 6.19 All Parks by Category + Greenways - Ankeny, Iowa

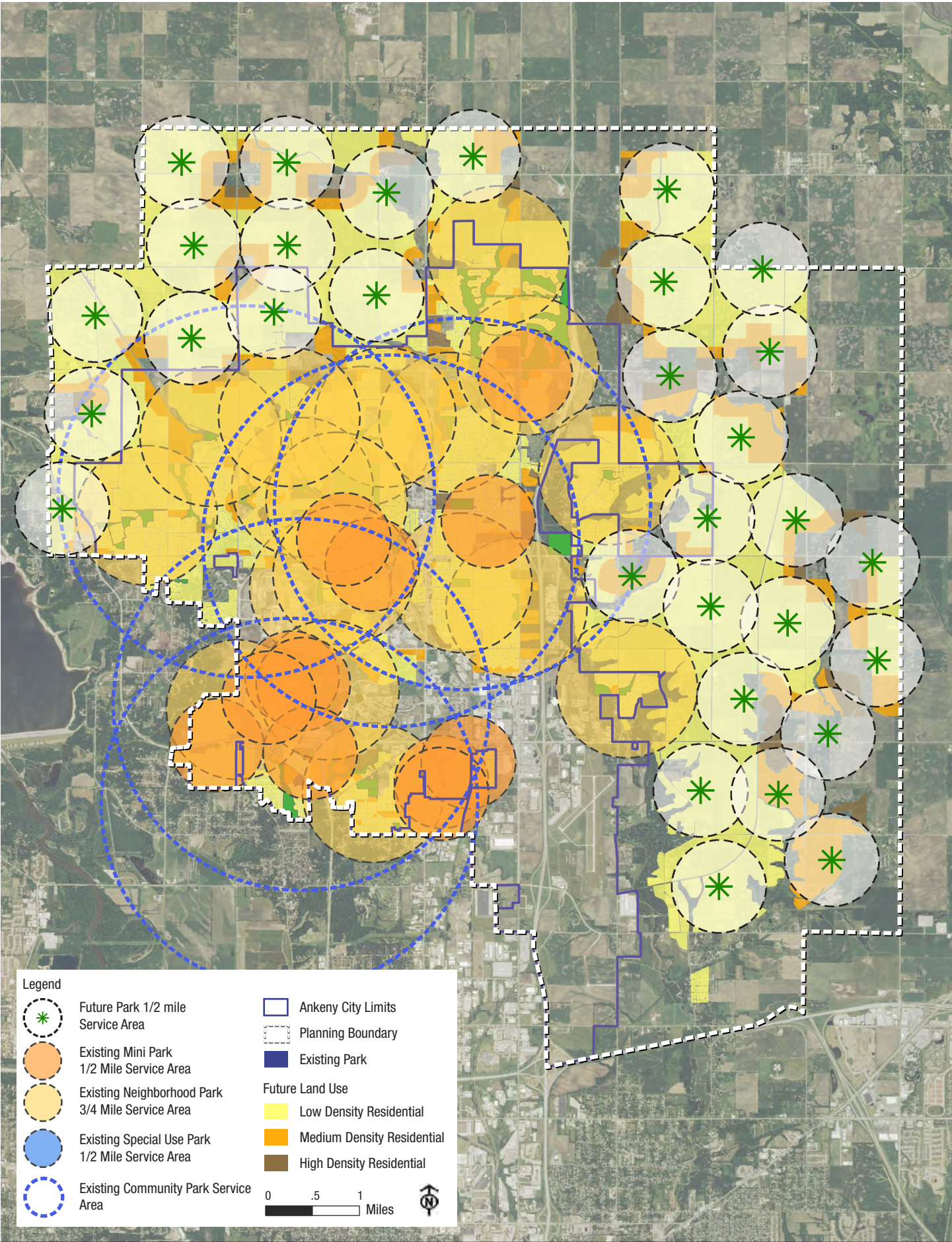
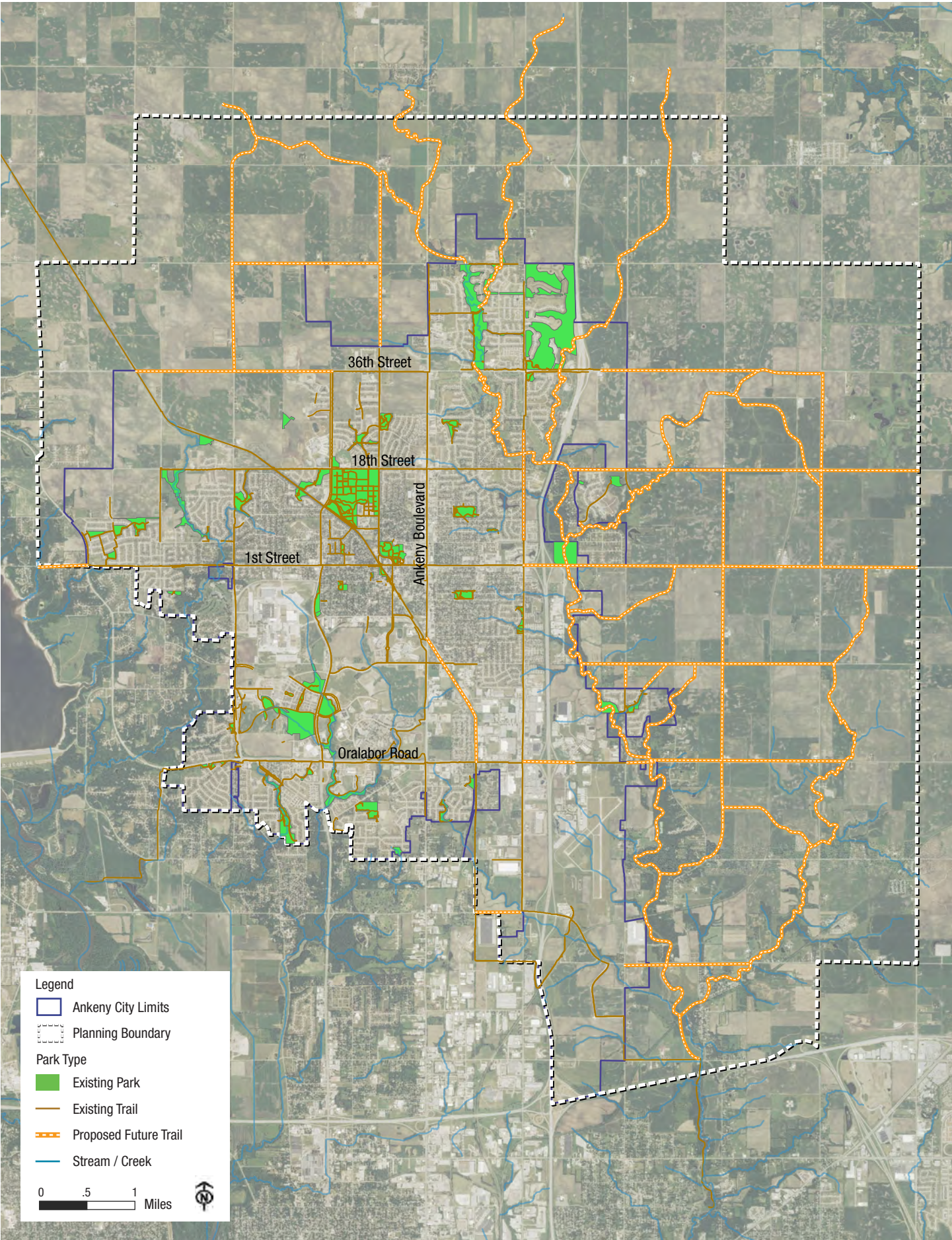


FIGURE 6.20 Future Trails Map - Ankeny, Iowa



PARKS AND RECREATION GOALS AND POLICIES

Goal 1: Update the 2007 Ankeny Parks and Facilities Comprehensive Plan

Action 1.1 - Include a survey for trail users to analyze trip purpose

Action 1.2 - Analyze need and funding for more recreation fields

Goal 2: Expand community and regional park facilities

Action 2.1 - Add a larger community / regional park

Goal 3: Add missing segments to existing trail system

Goal 4: Expand the trail system into the planning boundary growth area

Action 4.1 - Add an additional link across Interstate 35 further north near NE 18th Street along Fourmile Creek

Policy 4.2 - Integrate a bike / pedestrian path along new major roads in the planning boundary growth area

Policy 4.3 - Integrate trails into the stream buffers as obtained

Goal 5: Continue to provide sufficient neighborhood parks as the community grows

Action 5.1 - Review and update parkland dedication ordinance

Goal 6: Add trails to stream buffers

Action 6.1 - Adopt a new stream buffer ordinance with 100 and 50 feet buffers along Type 1 - Perennial and Type 2 - Intermittent Streams

Goal 7: Evaluate options to partner with school district on shared facilities

Goal 8: Integrate high-quality wetlands into park spaces or open spaces in developments

Action 8.1 - Add regulation encouraging developers to integrate high-quality wetland preservation into a site amenity or open space