

# ENVISION ADEL 2040

## *COMPREHENSIVE PLAN*



*ADOPTED JULY 14, 2020*

# ACKNOWLEDGMENTS

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## *ADEL COMMUNITY*

Thank you to all members of the Adel community that participated in the public engagement process for the Envision Adel 2040 Comprehensive Plan. Your input helped identify the goals and priorities for the City's future outlined in this report.

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# COMMUNITY VISION

*PLAN OVERVIEW  
& GUIDING PRINCIPLES*



## PLAN INTRODUCTION

Comprehensive Plans are guiding documents for growth and development in a community. A wide set of issue areas are covered including natural resources, parks, public facilities, housing, land use, growth and development, transportation, and infrastructure. The Comprehensive Planning process is an opportunity for a city to thoroughly assess existing conditions and to engage with residents to determine what works well and what can be improved upon for the future. The results of this analysis and engagement help identify a community vision that can inform decision-making at the city-level now and in the future. When the city is making decisions about annexation, re-zoning applications or street alignment, they should reference this plan to either support or deny a proposal based on the analysis and engagement completed during this process.

Comprehensive plans are future-oriented and the *Envision Adel 2040 Comprehensive Plan* outlines goal, priorities, policies and action items for just over a twenty-year time period. However, Comprehensive Plans are not meant to be static, unchanging documents. The City of Adel should review the implementation plan's goals, policies and action items annually to determine what tasks are being accomplished. Every five years, the city should review the entire booklet to determine if amendments should be made to reflect new conditions, goals or developments.

Adel's last full Comprehensive Plan was completed in 2009. The City completed a land use plan update in 2015 and again in 2018. Since these last two major planning efforts, the City has experienced significant residential growth. The influx of new residents has changed the boundaries of the community, altered the traffic flow in town, and added increased pressure to the public services and facilities in the community. The new Comprehensive Plan is meant to provide a strategy for the growth expected in Adel by outlining how Adel can grow in a manner that is sustainable and intentional.

## PLANNING PROCESS

The *Envision Adel 2040 Comprehensive Plan* was completed over four phases:

Phase 1 – Kick-off, Research & Analysis

Phase 2 – Vision, Input & Direction

Phase 3 – Draft Plan & Evaluation

Phase 4 – Final Draft Plan & Adoption

### Phase 1 – Kick-off, Research & Analysis

Phase 1 – Kick-off, Research & Analysis took approximately three months and involved a kick-off meeting with the Comprehensive Plan Advisory Committee, data collection and the initial set of analyses of socioeconomic data.

### Phase 2 – Vision, Input & Direction

Phase 2 – Vision, Input & Direction took approximately five months and involved a majority of the public engagement completed for the plan update. In addition to Comprehensive Plan Advisory Committee meetings, the City held key stakeholder interviews, a public workshop, a box city kids event and had a community survey. The results of the public engagement were analyzed and used to make recommendations for the final plan.

### Phase 3 – Draft Plan & Evaluation

Phase 3 – Draft Plan & Evaluation took approximately six months to complete and involved the actual drafting of the plan and its chapters. These chapters represent the existing conditions of Adel, projections for future conditions, and the policies and action items necessary to implement the community vision for Adel.

### Phase 4 – Final Draft Plan & Adoption

Phase 4 – Final Draft Plan & Adoption took approximately three months and involved the city completing the final revisions and edits to the draft plan before submitting the plan for approval. The adoption phase includes a vote to recommend adoption by the Planning & Zoning Commission followed by a formal adoption by the Adel City Council.

## Horizon Year + Planning Boundary

Comprehensive plans are future-oriented and the last year in the future in which projections end is called the horizon year. The *Envision Adel 2040 Comprehensive Plan* has a horizon year of 2040 which was selected because projections for twenty-year periods are sufficiently forward thinking but still allow for some degree of predictability in growth and demand estimates. While the plan projects for conditions out to 2040, the City of Adel should review the entire plan every five years to see if conditions have changed dramatically and warrant additional review or update.

Another important feature is the planning boundary. A planning boundary depicts where Adel sees growth or growth pressures occurring within the planning period. While every acre of the planning boundary will likely not develop before the horizon year, it is important for the city to think about what they want or do not want in certain areas surrounding the community. The planning boundary used in the *Envision Adel 2040 Comprehensive Plan* is the same one used in the 2015 Future Land Use Plan update for the community. The extents of the planning boundaries can roughly be described as:

- North to 270th Street / NW 46th Avenue
- South to the South Raccoon River north of Interstate 80
- East to R16
- West to L Avenue

This planning boundary allows enough room for Adel to expand and provides several opportunities for growth and preservation of all land use types including agricultural land. The planning boundary reflects current growth boundaries for the city based on agreements with nearby communities as of 2019. This boundary allows Adel to protect its border and to control the preferred land use and development patterns that can define the entrances into the community.

## Plan Chapters

The *Envision Adel 2040 Comprehensive Plan* has been divided into the following chapters:

- Community Vision
- Community Profile
- Public Participation
- Natural Resources
- Parks & Recreation
- Housing
- Public Facilities
- Transportation & Mobility
- Land Use
- Infrastructure
- Implementation Plan

## How to Use the Plan

The *Envision Adel 2040 Comprehensive Plan* provides a framework to help guide and support growth and development in the community for the next ten to twenty years. The plan can be used to answer questions regarding existing conditions of parks, public facilities and land use within the community, among other topics. The public participation completed in the planning process can help guide in decision-making and strategic planning for the community in the years ahead. The future land use plan can help support or deny re-zoning requests, development proposals, annexation decisions and more. Finally, the goals, policies and action items created for each major topic area can help create priorities, inform decisions, assess progress and reach the community vision and goals identified in the process. This plan is not meant to sit on a shelf, it should be an integral part of decision making and help direct progress in Adel now and in the future.

## COMMUNITY VISION OVERVIEW

The community vision for the Envision Adel 2040 Comprehensive Plan was formed by identifying those themes, ideas or values that were present throughout the public input process. In a community that has experienced as much growth as Adel has in a short time period, it is not surprising to hear different views on the changing dynamics of the community. New residents often have a different perspective than more established residents, but both deserve to be heard in the planning process. The main themes of the community vision that were identified through the engagement process were:

- Keeping small-town feel as Adel grows
- Preserve the historic downtown
- Take advantage of natural features / environment / trail access
- Retain unique identity – not become a cookie-cutter suburb

These four community values and themes influenced decision-making for the Envision Adel 2040 Comprehensive Plan through every chapter, each goal and the numerous policies and action items listed.

### ***Keep Small-Town Feel***

Many people cited the small-town feel as their favorite thing about Adel. Most residents understand that growth is inevitable but believe there are ways to maintain the small-town feel even as the community grows. Efforts were made throughout the plan to help achieve this vision.

### ***Preserve Historic Downtown***

Adel is fortunate to have a historic downtown square that acts as an anchor and the center of the community. Other suburban communities desiring a downtown must create a town center or square for their communities, a difficult and expensive endeavor. Adel has a built-in cultural, boutique retail, and restaurant hub for their community. This important feature should be preserved and enhanced.





### ***Natural Features / River & Trail Access***

Another unique feature Adel has is access to the Raccoon River and the Raccoon River Valley Regional Trail. The Raccoon River offers natural scenery, rolling slopes and tree cover. The Raccoon River Valley Trail is a popular regional trail that brings in visitors from across the metro area and state. Many residents brought up their desire to take more advantage of the natural resources surrounding Adel including the Raccoon River Valley Trail, access to the Raccoon River and the dense tree cover surrounding the river. Situating Adel as a “recreation town” with bike trails, water trails and other recreational opportunities helped guide decision-making.



### ***Avoid becoming another cookie-cutter suburb***

Adel has a different look and feel to other western Des Moines metro suburbs, mainly due to the age and historic significance of the community. Throughout the planning process, residents stated their preference to maintain the community’s identity, look and feel. Residents do not want the endless strip malls and residential subdivisions they see in other nearby communities. To avoid this fate, intentional land use planning and policy is needed to keep development in line with Adel’s existing land use pattern.







# COMMUNITY PROFILE

*DEMOGRAPHIC  
& EMPLOYMENT PROFILE*





# COMMUNITY PROFILE

## COMMUNITY PROFILE OVERVIEW

Adel is a growing suburb on the western edge of the Des Moines metropolitan area. The area around Adel has rolling hills and plenty of natural tree cover as a result of the North Raccoon River that runs through the eastern edge of the community. Adel is the county seat of Dallas County, Iowa, one of the fastest growing counties in Iowa. Adel is a historic community, first incorporating under the name Penoch in 1847 with an estimated population of 466. By 1960, Adel's population had grown to approximately 2,060 residents. By 1990, Adel had grown to approximately 3,304 residents and it stayed within a few hundred people of this size for the next several decades. Starting in 2010, Adel began to experience more significant population growth and as of 2018 the U.S. Census Bureau Population Division estimated the total population is 4,954.

Adel's recent population growth has likely changed the community's demographic profile as compared to previous planning efforts. A detailed demographic and employment profile are important for the existing conditions analysis necessary for a comprehensive plan. This chapter creates a community profile by detailing the following components:

- Demographic Overview + Population Projections
- Employment + Industry Profile

## CURRENT DEMOGRAPHIC PROFILE

Demographic data was taken from the U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates whenever available. All other sources and dates will be noted otherwise.

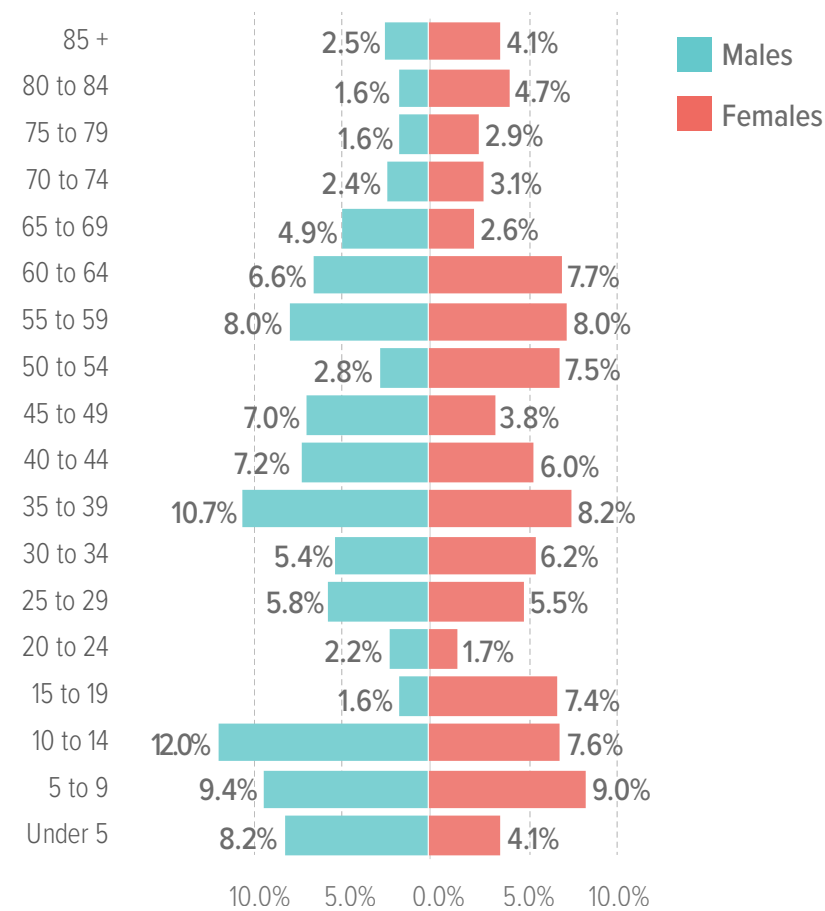
### Total Population

The latest U.S. Census total population estimate for Adel is from 2018 and shows a population of 4,954. Based on recent growth, it is likely the 2019 population is slightly higher, somewhere around 5,100. Only nine years ago, Adel's estimated population was 3,682, approximately 34.5% lower than today. For many years, Adel's population hovered between 3,400-3,600. As the Des Moines metro has grown, mainly west and north, it has long been expected for the growth to reach Adel. However, this growth arrived sooner than anticipated, with many developers citing the City's residential tax abatement program as the catalyst.

## Age Profile

The total median age in Adel is 38.6. The median age for men is 37.4 and 40.2 for women. A pyramid chart showing age by sex is shown in Figure 2.1. The age pyramid shows the number of males and females by 5-year age cohorts. The three large bulges in population are children (aged 5 to 14), younger adults (age 35 to 39) and older adults (age 55 to 64). Figure 2.1 shows the age by sex breakdown.

Figure 2.1 Adel Age Composition 2017



Source: U.S. Census Bureau, American Community Survey 5-Year Estimates

## Households + Families

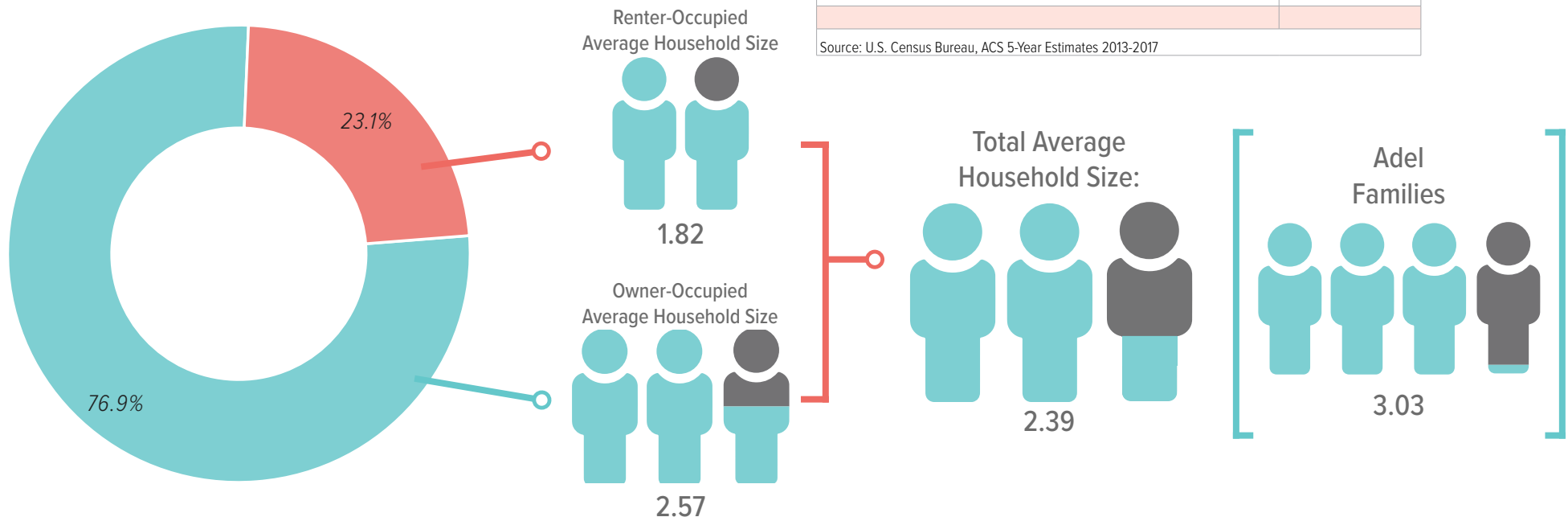
There are an estimated 1,677 households in Adel and the overall average household size is 2.39. Most households in Adel are owner-occupied accounting for 76.9% of housing units. The remaining 23.1% of units are renter occupied. The average owner-occupied household size is 2.57 and the average renter-occupied is smaller at 1.82. Approximately 64% of households in Adel are families which have the highest average household size for Adel with an average family size of 3.03. Nearly 60% of families have children age 6 to 17 years which help to explain the high average household size for families in Adel. Figure 2.2 and Table 2.1 show the summary data for households and families living in Adel in 2017.

Table 2.1 Households & Families (2017)

Households + Families Summary (2017 est.)	
Housing Type	
Total Housing Units	1,677
Owner-Occupied Units	76.9%
Renter-Occupied Units	23.1%
Total Families	1,079
Households with Kids (<18)	37.8%
Average Total Household Size	2.39
Average Owner-Occupied Household Size	2.57
Average Renter-Occupied Household Size	1.82
Average Family Size	3.03

Source: U.S. Census Bureau, ACS 5-Year Estimates 2013-2017

Figure 2.2 Adel Housing Tenure + Household Sizes (2017)



Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

# COMMUNITY PROFILE

## Household Incomes

Figure 2.3 shows the breakdown of household incomes for Adel in 2017. Approximately 20% of household incomes earn between \$100,000 to \$149,999 per year. Another 18.7% earn between \$50,000 to \$74,999 per year. The median household income is \$60,701 which is higher than the State of Iowa and the United States. Adel's median income is higher than the City of Des Moines, Iowa, but lower than some other Des Moines suburbs such as Ankeny or West Des Moines. Figure 2.4 shows a comparison of the median household incomes.

## Race / Ethnicity

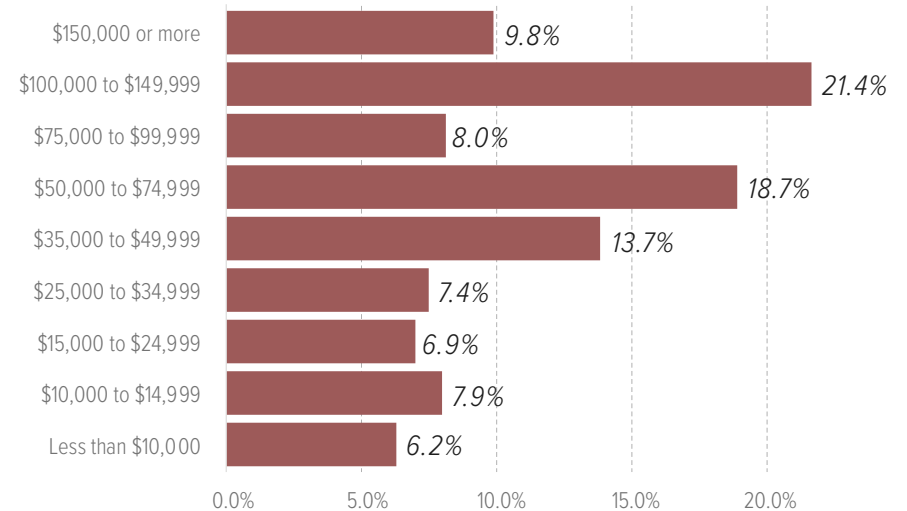
Adel is a predominantly white community, with approximately 96.6% of residents being White Alone. A small percentage of residents are either Two or More Races (1.6%), Black Alone (0.6%), or Asian Alone (0.4%). Approximately 0.7% of Adel residents are Hispanic or Latino. Table 2.2 shows the breakdown.

Table 2.2 Race / Ethnicity (2017)

Race / Ethnicity (2017 est.)		
Race / Ethnicity	Count	Share
White Alone	3,965	96.6%
Black Alone	26	0.6%
American Indian + Alaska Native Alone	0	0.0%
Asian Alone	16	0.4%
Native Hawaiian + Other Pacific Islander Alone	0	0.0%
Some Other Race Alone	0	0.0%
Two or more races	67	1.6%
Hispanic or Latino	29	0.7%

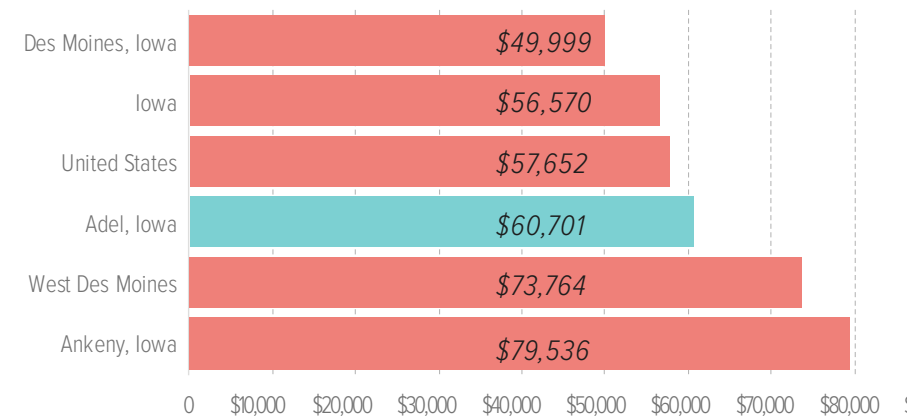
Source: U.S. Census Bureau, ACS 5-Year Estimates

Figure 2.3 Adel Households by Income in Past 12 Months (2017)



Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Figure 2.4 Median Income in Past 12 Months (2017)



Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



## Educational Attainment

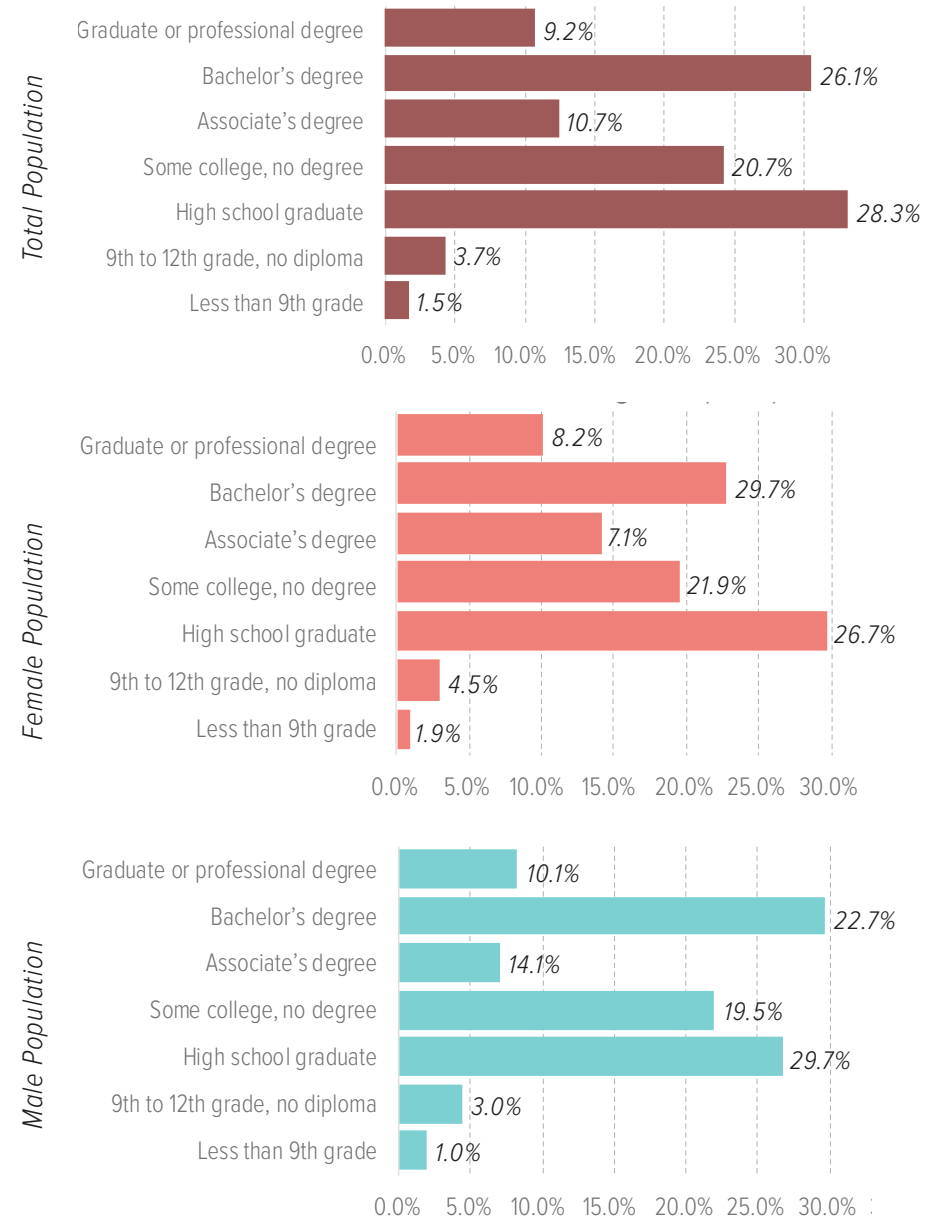
Figure 2.5 shows the educational attainment levels for Adel residents age 25 and older. Nearly 30% of residents have obtained a high school diploma or equivalent. Another 26.1% have a Bachelor's degree and 20% have some college but no degree. Just under 10% of residents have a graduate or professional degree. Educational attainment does vary by sex in Adel. Women in Adel are more likely to have a Bachelor's degree (29.7% to 22%) but less likely to have a graduate or professional degree (8.2% to 10.1%). Educational attainment level by median earnings is shown in Table 2.3. The median earnings for graduate or professional degree holders is \$75,536 versus \$31,250 for high school graduates. This differential indicates a significant divide between educational attainment levels among Adel residents.

Table 2.3 shows the median earnings by educational attainment level for all Adel residents. There is no data available for residents with less than a high school diploma's earnings, but residents with a high school diploma (or equivalent) have median earnings of \$31,250, which is actually higher than those with some college or an associate's degree (\$29,432 median earnings). Residents with bachelor's degrees earn more with median earnings of \$54,536. Those residents with graduate or professional degrees earn substantially more with median earnings of \$75,536.

Table 2.3 Adel Median Earnings by Educational Attainment (2017)

Median Earnings by Educational Attainment	
Educational Attainment	Median Earnings (12 months)
Less than high school graduate	—*
High school graduate (includes GED)	\$31,250
Some college or associate's degree	\$29,432
Bachelor's degree	\$54,536
Graduate or professional degree	\$75,536
TOTAL	\$42,708
* No sample observations or too few sample observations available	
Source: U.S. Census Bureau, ACS 5-Year Estimates 2013-2017	

Figure 2.5 Educational Attainment in Adel 2017



Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

# COMMUNITY PROFILE

## EMPLOYMENT + INDUSTRY PROFILE

Employment and industry data was found using U.S. Census Bureau and the Center for Economic Studies. There are roughly 1,923 primary jobs located in Adel and 2,068 Adel residents that work either in Adel or elsewhere. Since 2010, the total number of primary jobs in Adel has increased by 20.3% from 1,599.

### Major Industries by Employees

Major industries by total number of employees for both Adel-based and Adel resident jobs are shown in Figure 2.6. There are several differences between some of the major industries present in Adel and those industries most Adel residents work within. Notably, Adel has a high percentage of Public Administration jobs, but most are not held by Adel residents. Similarly, many Adel residents work in Finance & Insurance but very few jobs in Adel are in that industry. These differences are explained by Adel's close proximity to the Des Moines metro area.

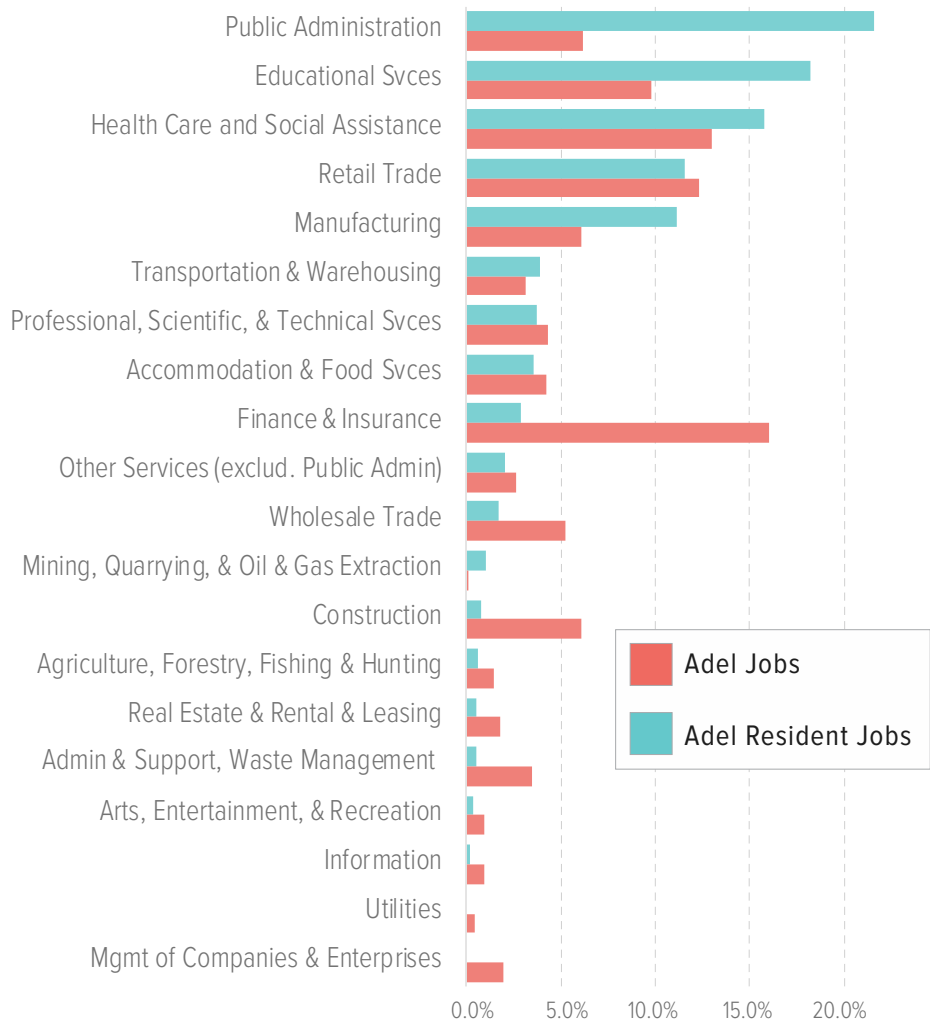
### Major Adel Industries

The five largest industries in Adel are Public Administration (19.6%), Educational Services (19.1%), Health Care & Social Assistance (17.3%), Retail Trade (12.5%), and Manufacturing (11.5%). Collectively, these jobs represent 60.4% of all Adel jobs. These industry sectors are not surprising given Adel's role as county seat for Dallas County and the major presence of the Adel-De Soto-Minburn school district.

### Major Adel Resident Industries

The largest industry for Adel residents is Finance & Insurance with 14.3% of all jobs held in this industry. Other large industries include Health Care & Social Assistance, Retail Trade, and Educational Services. The data indicates a significant number of Adel residents commute out of Adel for Finance & Insurance employment. While the remaining job categories are similar to Adel, there appears to be a large segment of workers that come into Adel for work but live elsewhere.

Figure 2.6 Adel Households by Income in Past 12 Months (2017)



Public Administration  
(19.6%)



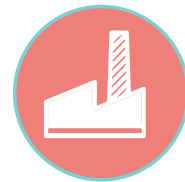
Educational Services  
(19.1%)



Health Care  
& Social Assistance (17.3%)



Retail Trade  
(12.5%)



Manufacturing  
(11.5%)

Figure 2.7 Jobs by Monthly Wages - Adel Workers vs Adel Resident Workers

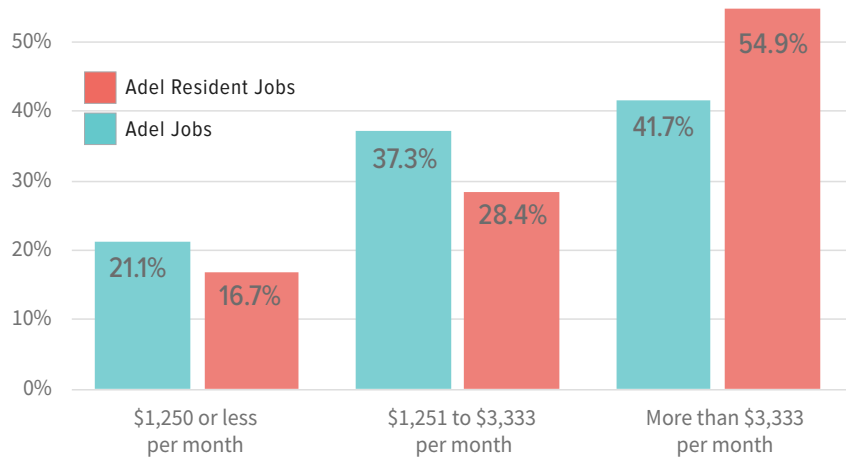


Figure 2.8 Jobs by Male / Female Ratio - Adel Workers vs Adel Resident Workers

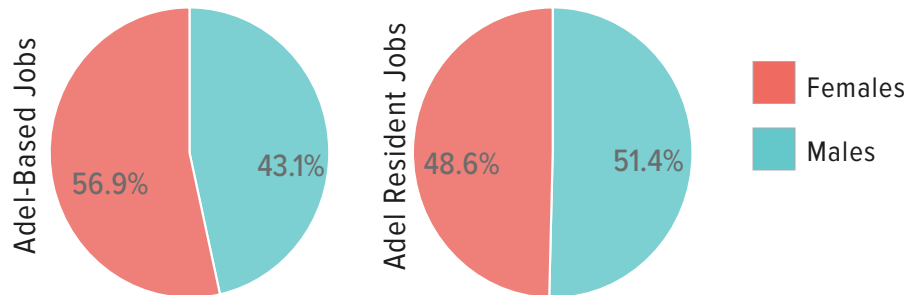
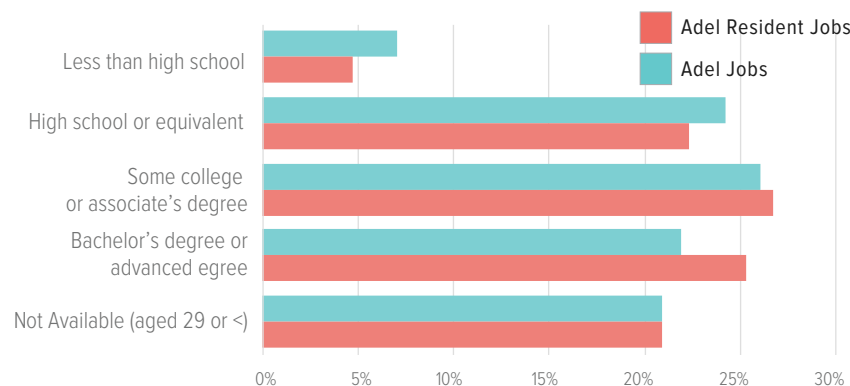


Figure 2.9 Educational Attainment - Adel Workers vs Adel Resident Workers



## EMPLOYEE PROFILE

In addition to worker industry, there is data available on the profile of workers in Adel jobs and Adel resident workers.

### Monthly Wages

Monthly wages for Adel jobs are shown in Figure 2.7. Approximately 40% of Adel jobs earn more than \$3,333 per month. Another 37.4% earn between \$1,251 to \$3,333 per month and only 20.5% earn \$1,250 or less per month. In general, most Adel jobs are not in the lowest wage category.

### Male / Female Ratio

More Adel jobs are held by women than male workers. Approximately 54% of jobs in Adel are held by females. By comparison, slightly more Adel residents that work are male with 51.5% of Adel resident workers. Figure 2.8 shows the breakdown.

### Educational Attainment

Educational attainment is gathered on all workers aged 30 and older. Nearly 30% of Adel jobs are held by workers with some college or an Associate's degree. Another 22.5% are held by workers with a Bachelor's degree or advanced degree. There are an additional 24.1% of workers in Adel with only a high school diploma or equivalent.

### Worker Race

The majority (96.1%) of Adel workers are White alone. Another 2.5% of Adel job holders are Black or African American alone. Approximately 3.4% of Adel workers are Hispanic or Latino.

Table 2.4 Worker Race - Adel Jobs + Adel Resident Workers

Worker Race - Adel Jobs + Adel Resident Workers		
Place	Adel Jobs	Adel Resident Workers
White	95.2%	
Black or African American	2.7%	
American Indian or Alaska Native	0.4%	
Asian	1.0%	
Native Hawaiian or Pacific Islander	0.0%	
Two or More Race Groups	0.7%	

Source: Adel Comprehensive Plan and Open Space Plan 2017

COMMUTING PATTERNS

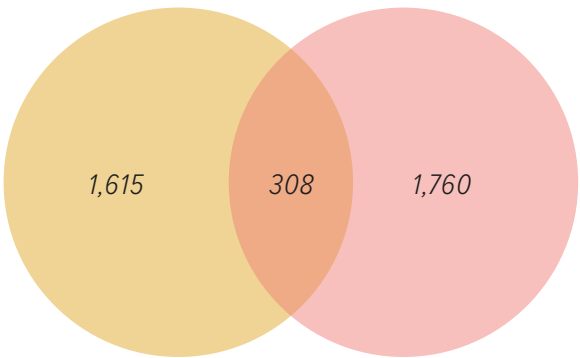
Although Adel is a smaller suburb of Des Moines, its role as county seat for Dallas County, the location of the ADM school district, and several long-time businesses, there are a number of Adel-based jobs. However, many residents still commute elsewhere for work. The following datasets explore who works where and how far they travel to get there.

Worker Inflow / Outflow

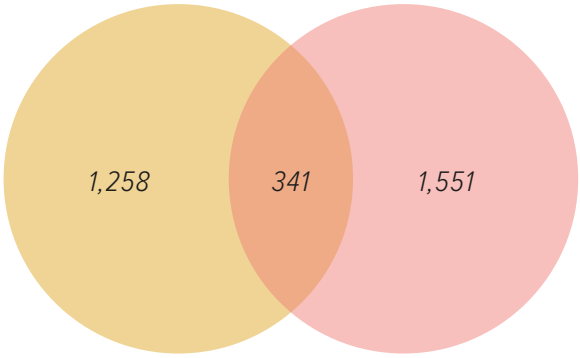
In 2017, only 308 people are estimated to both live and work in Adel. Roughly 1,615 work in Adel but live outside Adel. Another 1,760 live in Adel but work elsewhere. In 2010, slightly more people both worked and lived in Adel (341 compared to 308). However, the total number of people employed in Adel has increased from 1,258 to 1,615. Additionally, the number of people that live in Adel but work outside of Adel has increased from 1,551 to 1,760.

Figure 2.10 Worker Race - Adel Jobs + Adel Resident Workers

2017



2010



- Work in Adel, live outside
- Live + work in Adel
- Live in Adel, work outside

Jobs by Distance

Most Adel residents travel East for work. Table 2.5 shows the distance traveled for work (distance between Home Census Block to Work Census Block). Nearly 60% of Adel residents travel between 10 and 24 miles for work. This is roughly the distance between Adel and the City of Des Moines. Another quarter (25.4%) of Adel residents travel less than 10 miles for work. Approximately 10% of Adel residents travel more than 50 miles for work.

Table 2.6 shows the Distance Adel-Based Employees Travel to Work in Adel (Work Census Block to Home Census Block). Roughly 34% travel less than 10 miles and another 35% travel between 10 and 24 miles. Almost 20% travel more than 50 miles to work in Adel.

Table 2.5 Jobs by Distance - Home to Work (2017)

Jobs by Distance - Home to Work Census Block - Adel, Iowa (2017)		
Distance	Count	Share
Less than 10 miles	526	25.4%
10 to 24 miles	1,224	59.2%
25 to 50 miles	103	5.0%
Greater than 50 miles	215	10.4%
TOTAL	2,068	100.0%

Source: Adel Comprehensive Plan and Open Space Plan 2017

Table 2.6 Jobs by Distance - Work to Home (2017)

Jobs by Distance - Work to Home Census Block - Adel, Iowa (2017)		
Distance	Count	Share
Less than 10 miles	659	34.3%
10 to 24 miles	674	35.0%
25 to 50 miles	210	10.9%
Greater than 50 miles	380	19.8%
TOTAL	1,923	100.0%

Source: Adel Comprehensive Plan and Open Space Plan 2017

## Jobs by Destination

Table 2.7 shows the locations where Adel-based employees live. Approximately 16% of Adel-based jobs are held by people that live in Adel. The next major locations where Adel workers live is Des Moines (5.8%), West Des Moines (4.8%), Waukee (4.1%), Perry (3.3%) and Urbandale (3.2%).

Table 2.8 shows the locations where Adel residents work. The city with the most workers from Adel is Des Moines with approximately 20.3% of residents working the city. The other major locations where Adel residents work include West Des Moines (17.7%), Adel (14.9%), Urbandale (6.3%), Waukee (5.1%), and Clive (3.5%).

Table 2.7 Job Counts by Place - Where Workers Live (2017)

Job Counts by Place - Where Workers Live - Primary Jobs (2017)		
Place	Count	Share
Adel, Iowa	308	16.0%
Des Moines, Iowa	112	5.8%
West Des Moines, Iowa	93	4.8%
Waukee, Iowa	79	4.1%
Perry, Iowa	64	3.3%
Urbandale, Iowa	62	3.2%
Ankeny, Iowa	45	2.3%
Winterset, Iowa	37	1.9%
Dallas Center, Iowa	33	1.7%
Johnston, Iowa	28	1.5%
All Other Locations	1,062	55.2%
<b>TOTAL</b>	<b>1,923</b>	<b>100.0%</b>

Source: Adel Comprehensive Plan and Open Space Plan 2017

Table 2.8 Job Counts by Place - Where Workers are Employed (2017)

Job Counts by Place - Where Workers are Employed - Primary Jobs (2017)		
Place	Count	Share
Des Moines, Iowa	419	20.3%
West Des Moines, Iowa	367	17.7%
Adel, Iowa	308	14.9%
Urbandale, Iowa	130	6.3%
Waukee, Iowa	106	5.1%
Clive, Iowa	72	3.5%
Ankeny, Iowa	53	2.6%
Ames, Iowa	42	2.0%
Grimes, Iowa	37	1.8%
Johnston, Iowa	37	1.8%
All Other Locations	497	24.0%
<b>TOTAL</b>	<b>1,923</b>	<b>100.0%</b>

Source: Adel Comprehensive Plan and Open Space Plan 2017



## GROWTH AND DEVELOPMENT

Population projections are a key calculation in a comprehensive plan because they help the community prepare for and understand growth expectations in their community. This is especially true in communities that have experienced high growth rates and will likely face growth pressures. Population projections are made by reviewing what trends have happened in the past and evaluating how likely those trends are to continue. Context and regional understanding of growth patterns are also essential in interpreting and recommending projections. A series of population projection scenarios have been completed for Adel for 2020-2040. These scenarios present a range of high and low growth rates for the community. An average of these scenarios was also calculated to present a balanced projection.

Table 2.9 shows the estimated population change in Adel since 1990. In this time, Adel has experienced an overall growth increase of 45.0%. It is evident based on the number of new construction homes, a growing demand for city services and increased school district attendance that Adel has experienced considerable growth in the past decade. However, much of this growth can be explained as an effect of the significant residential tax abatement program offered by the city starting in 2011. The tax abatement is scheduled to end in 2020 and it is unknown whether this growth rate will continue in its absence. For this reason, high and medium growth scenarios were used to evaluate the future demand for public facilities and services.

The five main projections used in the Envision Adel 2040 Comprehensive Plan were:

- Average Annual Percent Change 1990-2018 (1.7%) - Model A
- Average Annual Percent Change 2000-2018 (2.6%) - Model B
- Average Annual Percent Change 2010-2015 (1.6%) - Model C
- Average Annual Percent Change 2015-2018 (8.2%) - Model D
- Average Annual Percent Change 2010-2018 (4.9%) - Model E

These projections include a number of growth rates to show the possible variation in growth Adel may experience. Several growth rates experienced by Adel in the past 10-20 years are used.

The overall set of population projections can be seen in Figure 2.11. The average 2040 population projection is 11,945 and the high growth scenario for 2040 is 28,226. Many factors will determine the actual population in 2040, many of which are beyond the control of the city such as regional and national economic conditions. There is also

a considerable amount of developable land between Des Moines/West Des Moines and Adel that may develop first. However, there is no reason to suggest Adel will not continue to experience growth as development in the Des Moines metro continues to push westward. For these reason, both medium and high growth scenarios have been used to calculate demand estimates for public facilities and services in Adel.

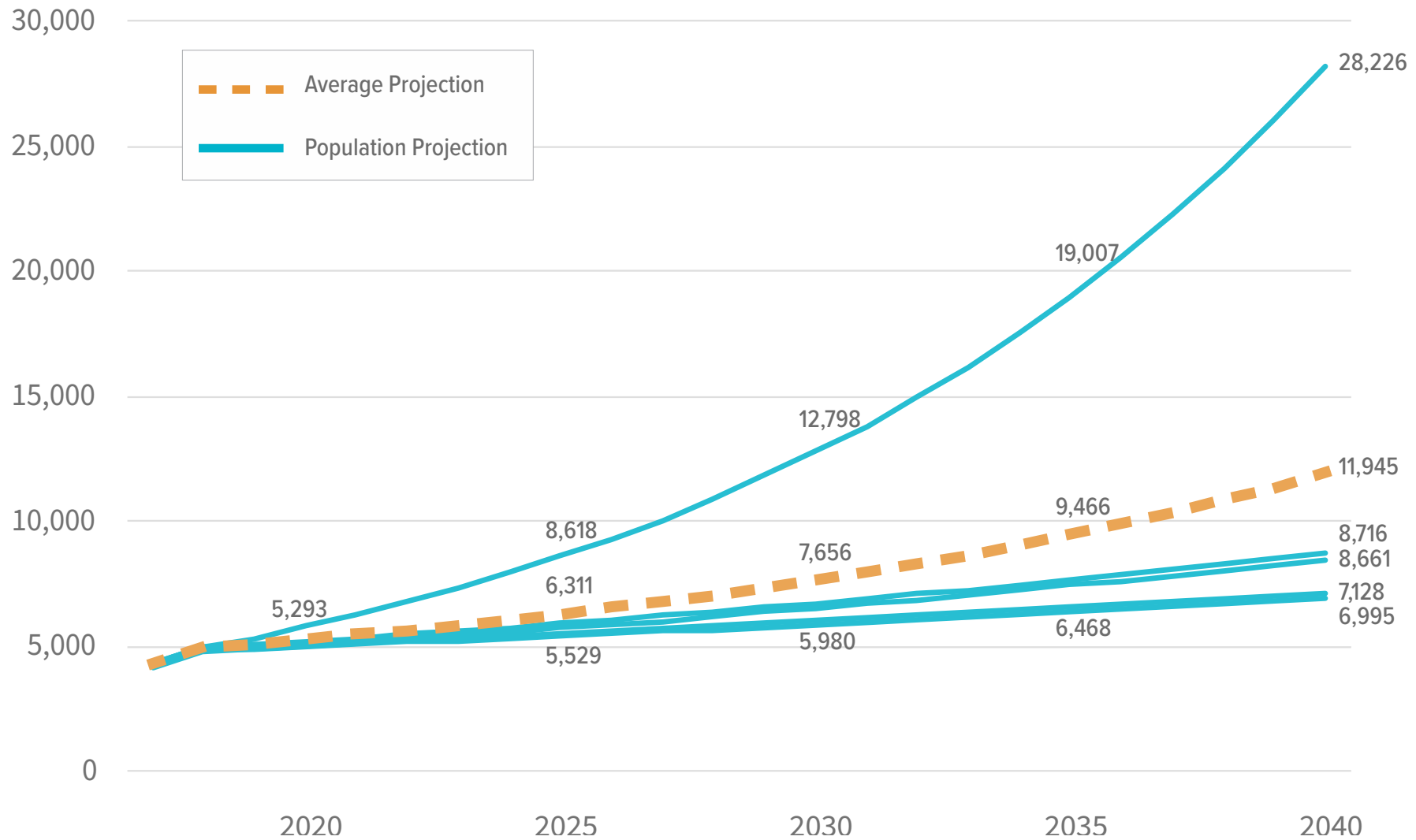
Table 2.9 Adel Growth Rates 2010-2017

Growth Rates - Adel 2010-2017		
Year	Population Estimate	Percent Change
1990	3,416	
2000*	3,435	0.1% / year*
2010*	3,682	0.7% / year*
2011	3,813	3.6%
2012	3,884	1.9%
2013	3,971	2.2%
2014	4,033	1.6%
2015	3,973	-1.5%
2016	4,030	1.4%
2017	4,386	8.8%
2018	4,954	13.0%
Source: Confluence, with inputs from the U.S. Census Bureau		
*10 Year percents divided over ten years		

Table 2.10 Population Projection Summary 2025-2040, Adel

Population Projections 2025-2040, Adel						
Year	Model A	Model B	Model C	Model D	Model E	Average
2020	5,121	5,215	5,112	5,212	5,803	5,293
2025	5,562	5,930	5,529	5,918	8,618	6,311
2030	6,041	6,742	5,980	6,719	12,798	7,656
2035	6,562	7,666	6,468	7,628	19,007	9,466
2040	7,128	8,716	6,995	8,661	28,226	11,945
Source: Confluence, with inputs from the U.S. Census Bureau						

Figure 2.11 Population Projections 2020-2040





# PUBLIC PARTICIPATION

*PROCESS OVERVIEW  
& SUMMARY*





# PUBLIC PARTICIPATION

## PUBLIC PARTICIPATION OVERVIEW

Public participation is an important component of comprehensive planning because it is how the community is able to determine the wants, needs, and concerns of the public. Understanding what is working, what is not working, and what residents and businessowners would like to see in Adel is an important piece of the existing conditions analysis. The engagement opportunities offered through the Envision Adel 2040 comprehensive plan were designed to provide a diverse set of engagement types to try and meet the needs of Adel residents of all ages and from all walks of life. There were traditional public meetings, more personal sit-down stakeholder interviews, an online survey, a special event booth, and a kids-focused interactive event. This chapter describes the engagement strategies utilized during the Envision Adel 2040 comprehensive plan and details the results of those engagement exercises. The results of these exercises helped form the community vision used to draft goals, priorities, policies and action items.

Some event descriptions in this chapter only feature a sample of the results obtained during the engagement opportunities. Full results from the engagement events will be provided in the Appendix.



## COMMUNICATION PLAN

One initial step in the Envision Adel 2040 Comprehensive Plan was to outline a communication plan to be utilized in the comprehensive planning process. As a growing community with a mixture of both long-time and new residents, the City wanted to make sure as many voices as possible could be reached during the engagement phase. The City also understood that a mixture of traditional, in-person and online engagement methods would be needed to allow people to pick the engagement method most suitable for each person, group or organization.

The communication plan included the following activities:

- Plan Branding
- Use of a Comprehensive Plan Advisory Committee
- Community Survey
- Public Open House + Workshop
- Key Stakeholder Interviews
- Special Event Booth
- Box City Event
- Joint Workshops





## PLAN NAME + BRANDING

A plan name and branding exercise was completed as part of the comprehensive planning process. The purpose of the project name and branding is to create a recognizable symbol for the plan within the community. The comprehensive plan project was named Envision Adel 2040 to remind the public that this plan represents a future vision for Adel in the year 2040.

A project logo was created to highlight the distinct features that make Adel unique. The logo, pictured below, highlights the Dallas County Court House, downtown two-story buildings, and single-family homes. The graphic utilizes the existing color scheme brand for the City with pops of green to represent the access to nature.

# ENVISION ADEL 2040 COMPREHENSIVE PLAN



## COMPREHENSIVE PLAN ADVISORY COMMITTEE

A Comprehensive Plan Advisory Committee (CPAC) composed of key city staff, elected officials and informed citizens was formed to help review major project deliverables and chapter drafts and to help facilitate the engagement and approval process. The group met several times throughout the course of the planning process and provided valuable insight into Adel.

Members of the Comprehensive Plan Advisory Committee were:

- Jim Peters, Mayor
- Bob Ockerman, City Council
- Rob Christensen, City Council
- Kent McAdon, Planning & Zoning Commission
- Deb Bengtson, Adel Partners Chamber of Commerce
- Thomas Book, Raccoon Valley Bank / Economic Development Commission
- Anthony Brown, City Administrator
- Kip Overton, Public Works Director
- Steve Nichols, Building Inspector
- Nick Schenck, Parks & Recreation Director
- Valerie Sutton, Harvey's Greenhouse / Midwest Augers, Inc.



# PUBLIC PARTICIPATION

## KEY STAKEHOLDER INTERVIEWS

Key stakeholder interviews were held in January 2019 mainly in a room at the Adel Public Library. Several interviews were also conducted over the phone due to scheduling conflicts. The one-on-one stakeholder interviews provided in-depth and candid discussion over the issues and opportunities facing Adel. The stakeholders interviewed represented a wide range of interest areas in Adel including development, education, local businessowners, realtors, and long-time residents.

The groups and organizations that met with the city for stakeholders included:

- Greater Dallas County Development Alliance
- Dallas County
- ADM School District
- Local developer
- Three local realtors
- MidAmerican Energy
- New local businessowner
- Long-time local businessowner
- Local banker
- Adel Partners Chamber of Commerce
- Monarch Manufacturing

The main takeaways from the stakeholders were:

- Housing rehabilitation program needed to assist with affordable housing
- Adel should annex east to Waukee boundary (include MidAmerican site)
- City needs a certified site and to identify target industries
- City needs improved design standards/policies
- Highway 169 pedestrian issues near schools
- Relationship with school important - partnerships with school a strong possibility
- Need hotel and more unique downtown retail / restaurants to support tourism
- Sense of community / small-town feel is important
- School district and tax abatement have been major draws
- Adel as recreation town has many possibilities (trail, water, woods)
- Senior housing is needed so people can age in place
- Need a plan for downtown beyond just retail
- High quality of life – community, friendly, small-town feel
- Future streets / utility plan strongly needed

- Curb development north of town
- Grow to south/southwest
- Don't expand industrial to the west
- Traffic on R16 after Apple Data center may be an issue
- Workforce housing needed – many of new homes unaffordable to most
- Public infrastructure can be used to attract development instead of tax abatement





## BOX CITY EVENT

In an effort to obtain feedback from both young Adel residents and busy parents, a kid-focused box city event was held on April 26, 2019 in the Community Room of the Adel Public Library. Elementary-aged children were encouraged to attend this interactive and fun event. Square and boxes shaped like houses were provided alongside a variety of markers and other school supplies to help kids create homes and buildings for their ideal community. Attendees were asked to fill out a fake 'building permit' to explain why they wanted to build a certain building type. This fun event got kids thinking about city layout and the type of features they want in their community. Parents in attendance were encouraged to learn more about the plan and complete the community survey.





# PUBLIC PARTICIPATION

## PUBLIC WORKSHOP

The Envision Adel 2040 Comprehensive Plan workshop was held on Tuesday, February 26, 2019 at the Community Room of the Adel Public Library. The meeting started at 6:00 P.M. and ran to approximately 8:00 P.M. Residents were encouraged to attend the public workshop to learn more about the comprehensive planning process, review demographic data for their community, and to participate in a series of engagement exercises.

### Postcard Exercise

Meeting attendees were asked to fill out a fake postcard from Adel in the year 2030. They were given the following prompt:

*"Dear Friend / Family,  
It is the year 2030 and you should visit me here in Adel because..."*

The purpose of the exercise was to have residents start to imagine what they want to see and experience in Adel in the future. A few participants were asked to read their postcard out loud to the audience. An example of a completed postcard is shown in Figure 3.1. Overall, the key themes present in the postcard responses were:

- Parks / Raccoon River
- Walking / biking trails
- Schools / family-friendly activities
- Events / Sweet Corn Festival / Music in the Park
- Downtown / shopping district
- Local restaurants / shops
- Community spaces
- Historic / small-town feel

### Notecard Exercises

To conclude the presentation segment of the meeting, attendees were asked to fill out three postcards. One postcard had a green dot and asked respondents to describe the biggest opportunities for Adel. Another had a red dot and asked respondents to describe the biggest challenges for Adel. A blank postcard had respondents fill in their one big dream for Adel on the front and one big fear on the back. The responses to these postcards were tallied and put into word clouds, shown in Figure 3.3.

Figure 3.1 Adel Postcard Exercise Response Examples



Figure 3.2 Adel 'My Favorite Place in Adel is..' Board Results







# PUBLIC PARTICIPATION

## PUBLIC WORKSHOP

After the presentation, attendees were asked to complete a series of engagement exercises to gauge public views on development types and community goals.

### Visual Preference Exercise

The three visual preference exercise boards each had two categories of images that depicted different development styles, densities and types for the following themes:

- Employment / Jobs
- Community Services / Events
- Parks & Recreation
- Downtown Revitalization
- Streetscape Improvements
- Housing

Attendees were asked to place green sticker dots on the images they most liked and red sticker dots on the images they liked least. The results of one board is shown in Figure 3.4 and the full set of results can be found in the appendix.

For Employment / Jobs images, they liked included an office building, agriculture, and a downtown building. They did not like utility-scale wind turbines, large manufacturing buildings and business parks.

For community service / events, attendees most liked the farmer's market, music event and yoga in the park. A few disliked some of the streetscape amenities and benches but they were not widely disliked.

For parks & recreation they most liked the river access, splash pad and nature trails. They least liked trail exercise equipment and a few disliked the public art and passive green space examples.

For downtown revitalization, they most liked flower beds, bike racks and pedestrian furniture. They least liked a parking garage and the modern downtown apartment.

For streetscape improvements, they most liked the brick / cobblestone sidewalks and crosswalks and street trees / planters. They least liked bike lanes and roundabouts.

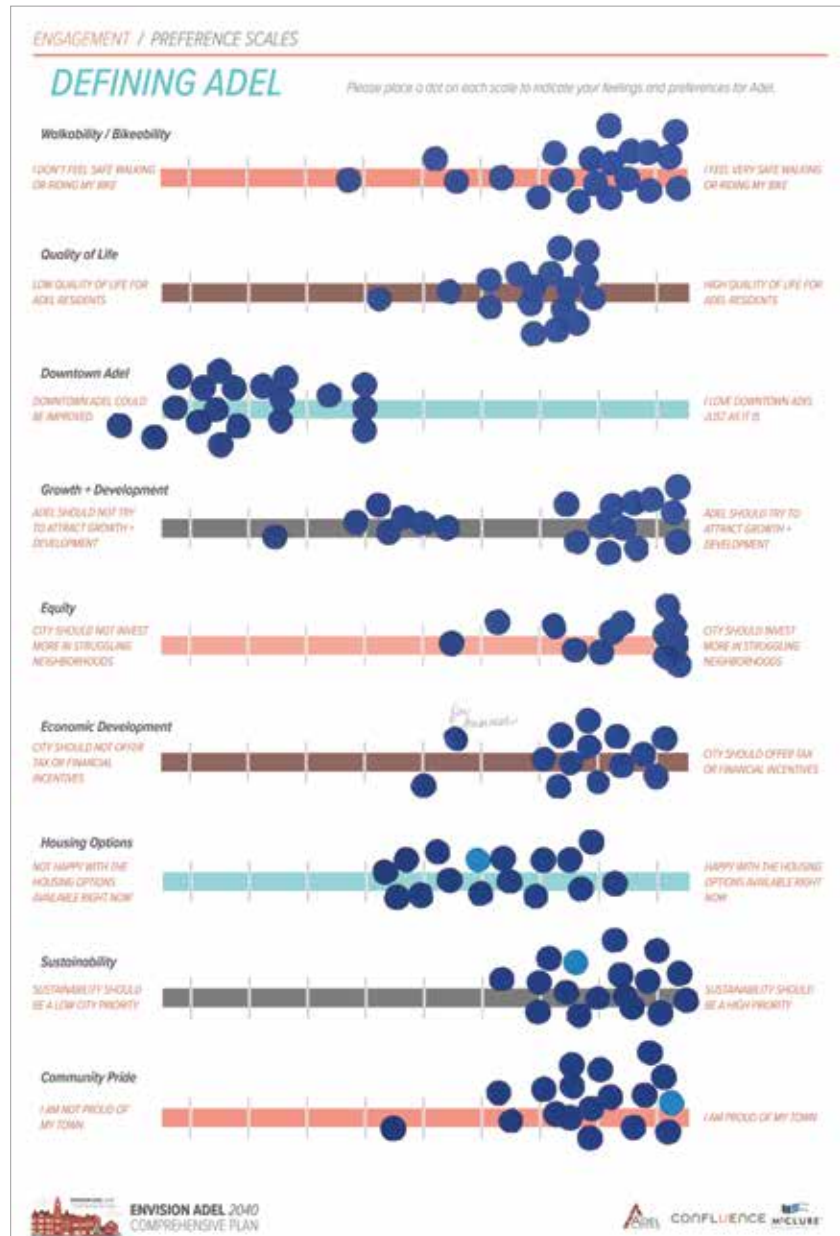
For housing, they most liked the townhomes, smaller bungalow homes and the mid-range newer single-family home. They most disliked the apartments and very large single-family home.

Figure 3.4 Adel Postcard Exercise Response Examples





Figure 3.5 Adel Preference Scales Board Results



## PUBLIC WORKSHOP

### Preference Scales

Most people do not hold an extreme viewpoint on most issues. To capture the range of feelings on a set of topics relevant to community planning, a preference scale board was used. Attendees were asked to place a blue sticker dot on a sliding scale between two feelings regarding a series of different topics. The topics included:

- Walkability / bikeability
- Quality of Life
- Downtown Adel
- Growth + Development
- Equity
- Economic Development
- Housing Options
- Sustainability
- Community Pride

Walkability / Bikeability - most feel safe or very safe walking or riding their bike.

Quality of Life - generally view quality of life as high with an average of 7.4 / 10.

Downtown Adel - most believe downtown Adel could be improved.

Growth + Development - mixed views of growth and development. Some feel very strongly in support and other fall somewhere in the middle

Equity - mostly strong support for investing in struggling neighborhoods.

Economic Development - most agree the City should offer tax or financial incentives, but one person wrote in for businesses only, likely in response to residential tax abatement.

Housing Options - there are mixed views on housing options and if people are happy with the options available right now in Adel.

Sustainability - there is strong agreement that sustainability should be a priority for the City of Adel.

Community Pride - most respondents generally feel proud of their town.

## PUBLIC WORKSHOP

### Priority Ranking Board

Attendees were presented with a board that had six different categories, each with a columned list of different priorities. Attendees were asked to place one blue sticker dot per column on the priority they felt should be most important for the City of Adel. There were several blank priority boxes where attendees could write in a priority they felt was missing from the list. The categories included:

- Housing
- Parks & Trails
- Jobs & Industry
- Downtown
- Streetscapes
- Services

Figure 3.6 shows the full set of results for the priority ranking board.

Housing - the housing priorities with the most blue dots were mid-level single-family homes, townhomes or rowhouses, apartment or condominiums, entry-level single-family homes, a home improvement fund and retirement center or senior housing\*.

Parks & Trails - the parks and recreation priorities with the most blue dots were more trails, splash pad, tennis / pickle ball courts, basketball courts, and playground.

Jobs & Industry - the jobs and industry priorities with the most blue dots were retail / services, business incentives, light industrial, and alternative energy investments.

Downtown - the downtown priorities with the most blue dots were cafe seating, facade improvements, and more seating.

Streetscapes - the streetscapes priorities with the most blue dots were traffic calming, sidewalks, roundabouts, crosswalks, and street trees.

Services - the services priorities with the most blue dots were community events, community gardens, fitness programs or initiatives, concerts, and youth opportunities.

\* indicates that response was written in by a respondent

Figure 3.6 Adel Priority Ranking Board Results

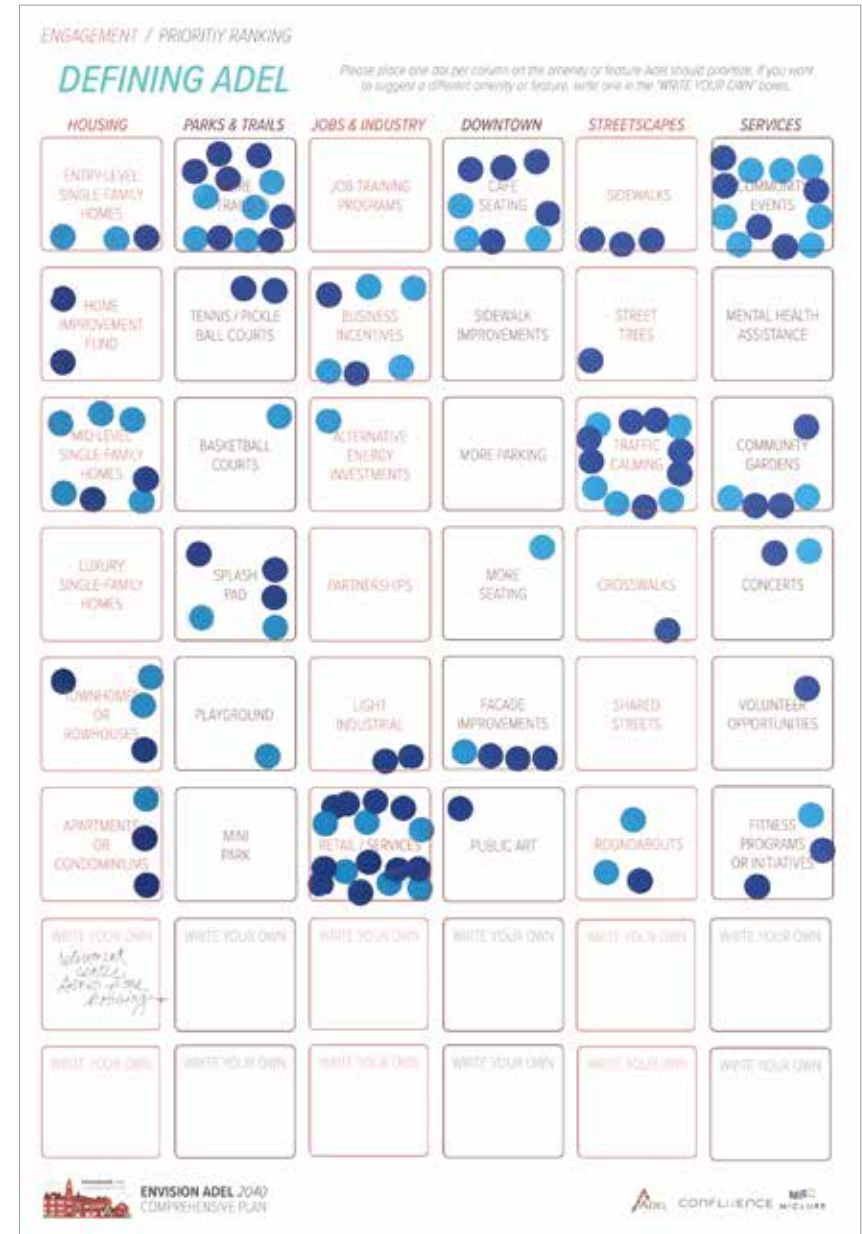




Figure 3.7 Adel Puzzle Mapping Exercise Base Map + Results



## PUBLIC WORKSHOP

### Puzzle Mapping Exercise

The final engagement exercise was a land use puzzle mapping exercise. A large map showing Adel and the surrounding area with a 1-inch grid was provided on two tables. Small cut-out pieces of paper representing different land uses and glue sticks were given to each table. Attendees were encouraged to work together to identify the areas suitable for different future land uses. The future land use pieces provided included single-family, medium and high residential, park, agriculture, commercial, office, and industrial. Most groups only placed future land uses on a few areas of the map. Figure 3.7 shows a completed puzzle map.

General themes in the results were:

- Industrial along Highway 6 east of Adel
- Commercial / Residential Mix along Highway 169
- Single-Family in the southwest part of Adel
- Agriculture north and northwest of Adel
- Parks along the river / floodplain area
- Offices near downtown and along Highway 6
- Higher density residential on Highway 6 and Highway 169



## COMMUNITY SURVEY

A community survey was open from February - April 2019. Adel received 536 responses which represents approximately 10% of all Adel residents. This is a high response rate and indicates Adel residents are invested in the future of their community. There was 100% completion rate and the typical time spent was 11 minutes. The community survey covered a wide range of topics over the course of 32 questions. Survey results are summarized below with full set of responses provided in the appendix.

### Respondent Profile

Approximately 41% of survey takers have lived in Adel for between 2 and 9 years. Another 27% have lived in Adel for 20+ years. Approximately 17% have lived in the community for between 10 and 20 years and 13% have lived here for less than one year. Only 2% of survey respondents do not live in Adel. Over half of all survey takers work outside of Adel and another 32% work in Adel.

When asked what the three most important reasons for living in Adel the top responses were:

- Size of the community (67%)
- General quality of life (60%)
- The K-12 schools (60%)

Other written-in answers included the tax abatement program, proximity to Des Moines and the overall location.

### Quality of Life

When asked to rank the quality of life in Adel from 1-10, the average response was 7.4 indicating generally high quality of life. When asked if respondents expected the quality of life to improve, stay the same, or decrease, 58% said improve. Another 20% thought the quality of life may decrease while 14% thought it would stay the same over time. Approximately 8% were not sure.

When asked what changes would improve the quality of life, the top answers were:

- Improve water quality (60%)
- Offer more community events / things to do (45%)
- Improve bike and pedestrian sidewalks and trails (40%)

Other written in comments list restaurants, retail, slowed growth and infrastructure improvements.

Figure 3.8 Community Survey Question 5 Response

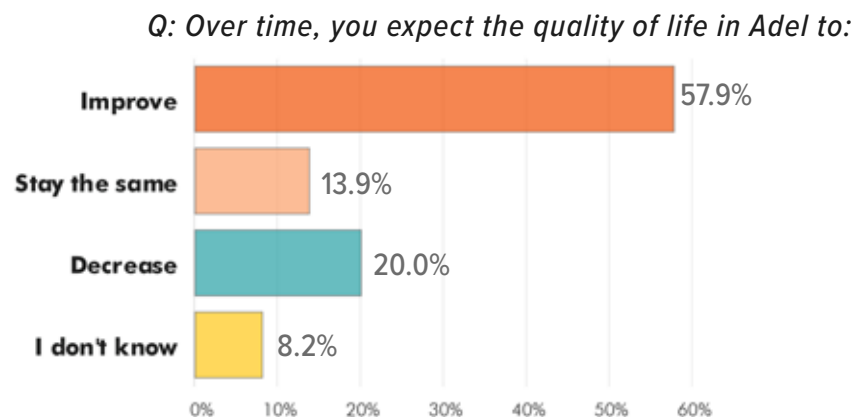


Figure 3.9 Community Survey Question 6 Response

**Q: Please indicate the changes you think will improve the quality of life in Adel.**

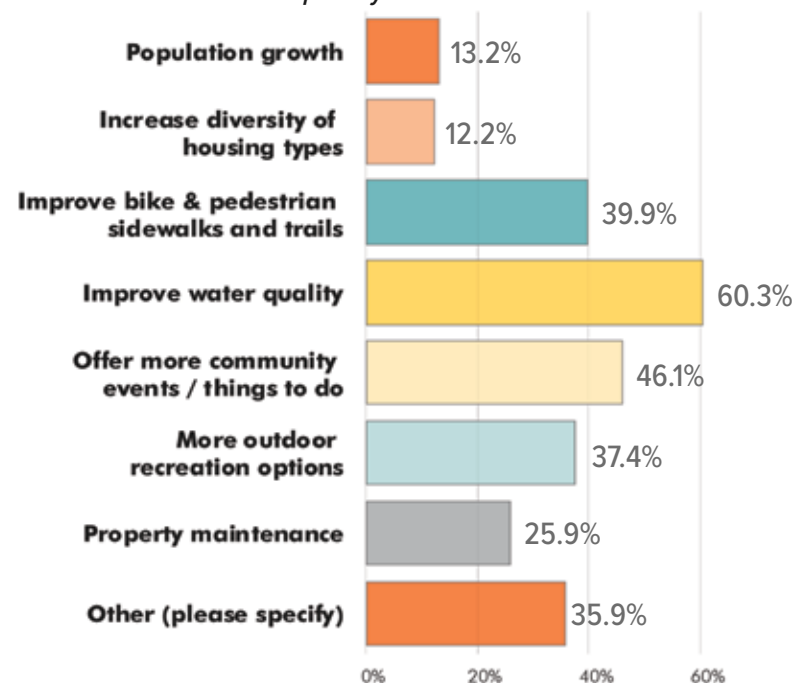


Figure 3.10 Community Survey Question 8 Response

**Q: “The City of Adel needs more affordable multi-family housing such as apartments.”**

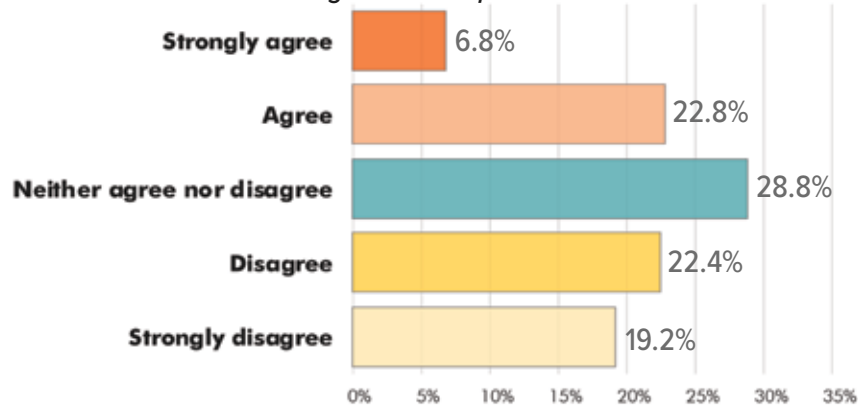
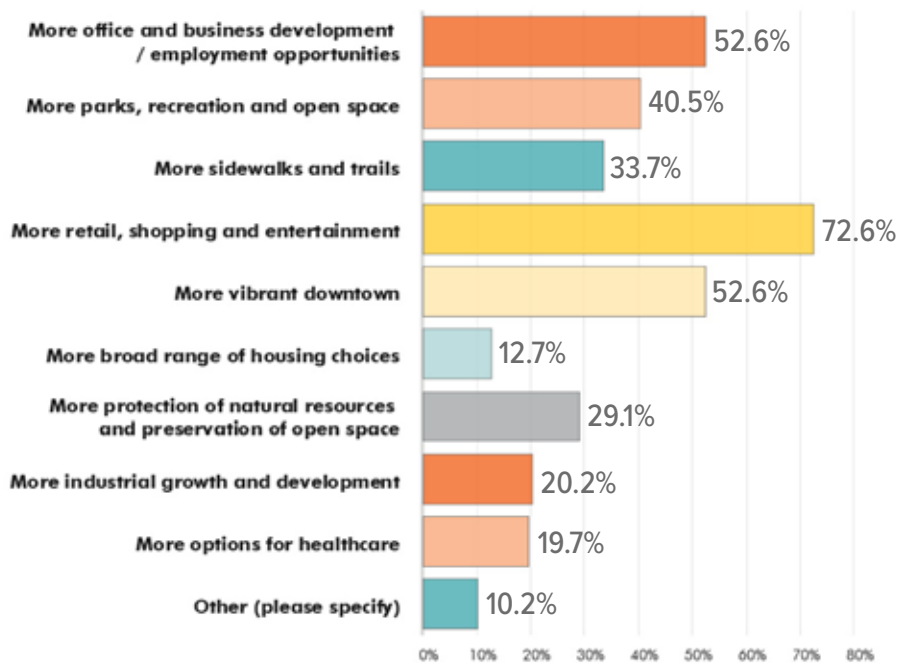


Figure 3.11 Community Survey Question 11 Response

**Q: The City needs more of the following:**



## COMMUNITY SURVEY

### Housing

When asked what housing is most needed in Adel, the most common response was mid-level single-family homes (39%) followed by entry-level single-family homes (26%). Surprisingly, there was some modest support for townhomes/rowhouses (14%) and apartments (12%), both of which are not commonly desired in suburban communities.

The survey asked a series of questions in which respondents were meant to indicate their level of agreement to a statement from strongly agree to strongly disagree. Figure 3.10 shows the divide on the need for multi-family housing such as apartments. There is a nearly even divide between agree and disagree with slightly more people strongly disagreeing.

There was general agreement over Adel's need of small single-family homes or townhomes/rowhouses. Nearly one-quarter of respondents, however, were not sure. Overall, there was stronger support for senior-focused housing in Adel with approximately 60% indicating they either agree or strongly agree with the need.

### What Adel Needs

When asked, in general, what Adel needs more of, the largest responses were:

- More retail, shopping and entertainment (73%)
- More office and business development / employment opportunities (53%)
- More vibrant downtown (53%)
- More parks, recreation and open space (40%)

Written-in responses shown there is also a need for fast-food and restaurants.

Survey takers were also asked specifically about recreation amenity needs. The most common answers were trails (47%), water access for kayaks / canoes / fishing (47%), and an outdoor recreation complex with multi-sport fields (46%).

## COMMUNITY SURVEY

## Transportation & Mobility

When asked what transportation and mobility amenities Adel will likely need 10-15 years into the future, the most common responses were:

- Stop lights (67%)
- Speed limit reductions (55%)
- Sidewalks (49%)

When asked to rate the connectivity of Adel streets and transportation, the average rating was 5.2 out of 10 indicating there are some perceived improvements needed.

## Growth & Development

Respondents were asked a series of questions regarding agreement on growth and development policies. The key takeaways from this section area:

- Most support allowing residential development only in areas where utility extension is planned and/or appropriate
- Most agree that environmentally sensitive land should be protected
- Most believe there are limited employment opportunities in Adel
- More than half believe Adel should continue to plan and invest in the growth and development of the community
- Mixed support for annexing more land to manage growth and development
- Most leave Adel to shop and eat and believe Adel's options are limited
- Strong support for more restaurants / fast food

### ***Long-Term Adel Vision***

Approximately half of survey takers have considered leaving Adel. The most common reasons for considering leaving were growth and taxes. When asked if survey respondents planned on living in Adel in 5 years' time, nearly 60% said yes but another 32% were unsure. When asked what might change their answer, the most common written-in responses were growth, taxes and jobs.

### ***Favorite Things***

The final question asked residents to list their favorite thing about Adel. A word cloud of responses is shown on the right. The most common responses were the small-town feel, community, schools, people, family and size.

Figure 3.12 Community Survey Question 26 Response

*Q: In 10-20 years, what sort of new amenities do you want to see in Adel?*

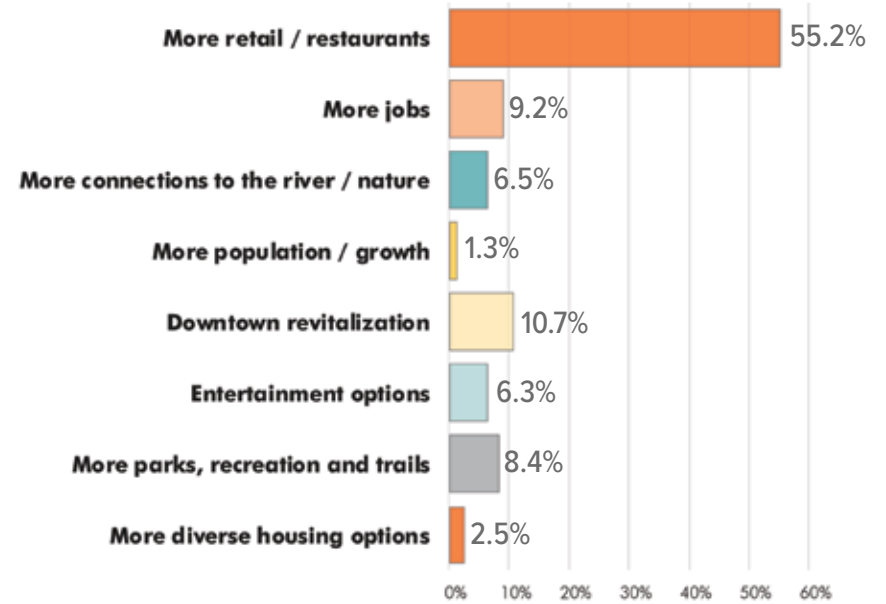


Figure 3.13 Community Survey Question 31 Response

*Q: What is your favorite thing about Adel?*







## SPECIAL EVENT BOOTH

A special event booth was set up during the 2019 Adel Sweet Corn Festival. At the booth, three boards were displayed that highlighted the feedback received at the public meeting, a summary of the community survey, and some results of the analysis completed for Adel's housing, parks & recreation, public facilities and natural resources. A quick engagement exercise was also available for visitors of the booth. The main goals and priorities for major sections of the report were displayed and visitors were asked to place a blue dot on the goal or priority they believed was most important for the City. Results of the board are shown below.

The biggest priority goals were:

- Bar / grill / restaurant
- Historic preservation in downtown square
- Sidewalks and trails
- Senior housing
- Splash pad
- Outline sanitary sewer & water service areas

Figure 3.14 Special Event Booth Priority Ranking Exercise Results







# NATURAL RESOURCES

*CONDITIONS OVERVIEW  
& RECOMMENDATIONS*





# NATURAL RESOURCES

## NATURAL RESOURCES OVERVIEW

The presence of key environmental features should help steer the direction and pace of development within a community. There is a balance between offering access to nature and respecting the risk and cost of developing too close to certain features. For instance, views of water come at a premium in land development but should be balanced with the need to protect property from flood damage and limit runoff flowing into the water due to the impermeable surfaces associated with development. By understanding the significant environmental features present within the planning area, Adel can identify the best possible ways to utilize and respect this sensitive land.

More and more, communities facing the high cost of traditional “gray” infrastructure are considering options that work to preserve and enhance the ecosystem services provided naturally by environmental features. This includes the cost of property damage by floods or flood wall construction compared to the ecosystem services of wetlands that naturally slow down flood water while capturing pollutants. The analysis of these features will help guide sustainable growth and development for Adel through the year 2040 and beyond. A series of natural resource-focused goals, policies and action items are listed at the end of this chapter. These objectives incorporate best practices for Adel to strive for as stewards of their community’s future.



## FLOODPLAIN

Floodplains are generally found in the low-lying areas near streams. They play an important role in the water cycle during storms, snow melt and other high-water events. Floodplains help capture, store and treat water overflowing from the stream bank. As water is infiltrated into the soil, sediment and other contaminants are often removed. This water is then released slowly back into the channel or it may replenish underground water flows. This natural process helps prevent property damage from flood events and provides a diverse habitat for a variety of flora and fauna. There are many recreational and aesthetic benefits to humans as well. Floodplain location is legally determined by the Federal Emergency Management Agency (FEMA). FEMA categorizes areas by level of flood risk. Communities and various industries use this data to make decision about land use planning, conservation and development. The two most common flood hazard zones are the 100 and 500-year floodplain. Figure 4.1 shows the approximate location of the floodplain in Adel, Iowa as of 2017.

### 100-Year Floodplain

The one-hundred-year floodplain are areas with a 1% probability of flooding in any given year.

### 500-Year Floodplain

The five-hundred-year floodplain are areas with a 0.2% probability of flooding in any given year.

## IMPACT ON THE PLAN

Most of the floodplain in Adel follows the path of the Raccoon River and its tributaries. Adel’s floodplain also has significant tree cover and provides the community with natural beauty. In general, development within the floodplain should be discouraged or limited to low intensity uses with minimal impermeable land cover such as concrete or pavement. Suitable uses include parks, recreation and agriculture. Permeable land cover such as turf or foliage should be encouraged. Fortunately, much of the floodplain in Adel is already set aside for these low-intensity uses such as the Kinnick-Feller Riverside Parkland the Island Park & Campground northeast of downtown Adel.



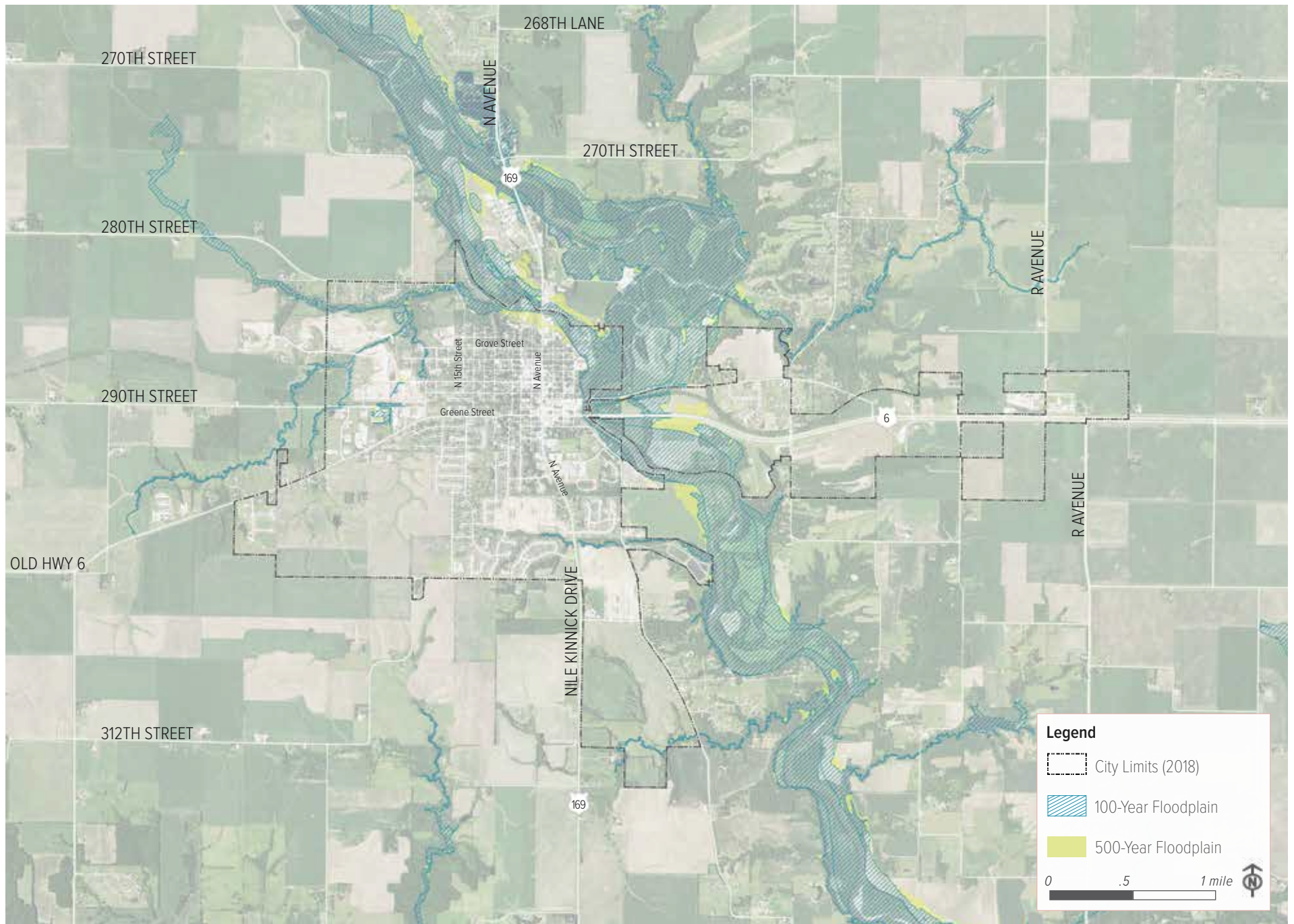


Figure 4.1 Floodplain

Data Source: FEMA

# NATURAL RESOURCES

## STREAMS + RIVERS

Both large and small streams play an important role in creating and maintaining a healthy ecosystem. The environmental and economic benefits of streams include:

- Supply drinking water
- Irrigating crops
- Mitigating damage from floods
- Filtering pollutants
- Fish and wildlife
- Recreation opportunities
- Commercial activities

Figure 4.2 shows the location of streams in Adel by stream type, defined below.

### **Type 1 - Perennial Streams**

Streams that have water flowing through them year-round except for during severe drought.

### **Type 2 - Intermittent Streams**

Streams that flow only during certain times of the year from springs or from runoff from rain events.

Figure 4.2 shows the approximate location of streams by type for Adel, Iowa.

## IMPACT ON THE PLAN

Stream management at a City-level can best be attained by preservation of the area around streams and by regulations and policies that address water quality at the source of pollution. In practice, this means preserving areas around streams with something like a stream buffer ordinance policy to limit development around streams and restore riparian vegetation. Runoff from urbanized areas can be better managed by adequate stormwater regulation and facilities. Lastly, education and outreach about individual practices to prevent pollution such as limiting fertilizer or oil spillage is another option in the toolkit for City-based stream management.





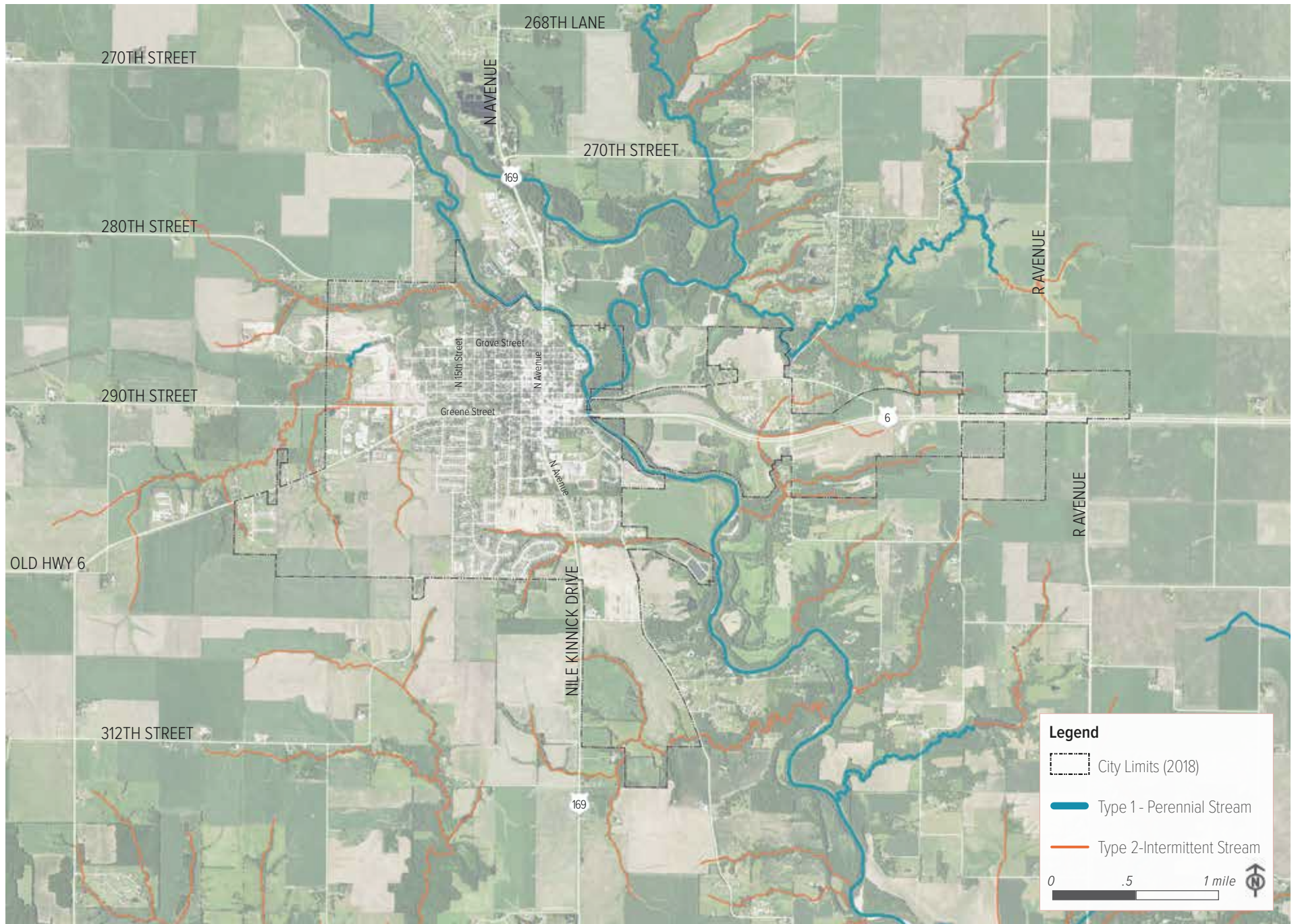


Figure 4.2 Stream by Stream Type

Data Source: U.S. Geological Survey



# NATURAL RESOURCES

## TREE COVER

Adel has been a member of Tree City USA for 25 years and was honored with the Tree City USA Award in 2018 because of its commitment to the management of public trees. Tree cover plays an important role in the environmental, economic and social health of a community.

### **Environmental Benefits**

- Climate change – trees sequester carbon dioxide, decrease concentration of greenhouse gases
- Energy conservation – natural air conditioner in summer, wind break in winter
- Water filtration and retention – help filter water, stormwater management
- Wildlife habitat – important habitat for a variety of birds, bats and insects

### **Economic Benefits**

- Higher residential and commercial property values for properties with trees
- Selling times for homes with tree cover faster
- Energy and utility bill savings related to reduced energy usage
- Less money spent on expensive “gray” infrastructure for stormwater

### **Public Health Benefits**

- Clean air – trees produce oxygen, intercept airborne contaminants and reduce smog
- Trees / open space – help promote physical activity, aid in mental health and add to the overall quality of life in a community

## IMPACT ON THE PLAN

Trees are an incredible environmental resource for a community in terms of the social, economic and environmental benefits they provide. Compared to other portions of the west Des Moines metro area, Adel has some large swaths of significant tree cover due to the North Raccoon River and its tributaries. When possible, areas with significant tree cover should be preserved. An estimate of the 2009 tree cover in Adel is shown in Figure 4.3.





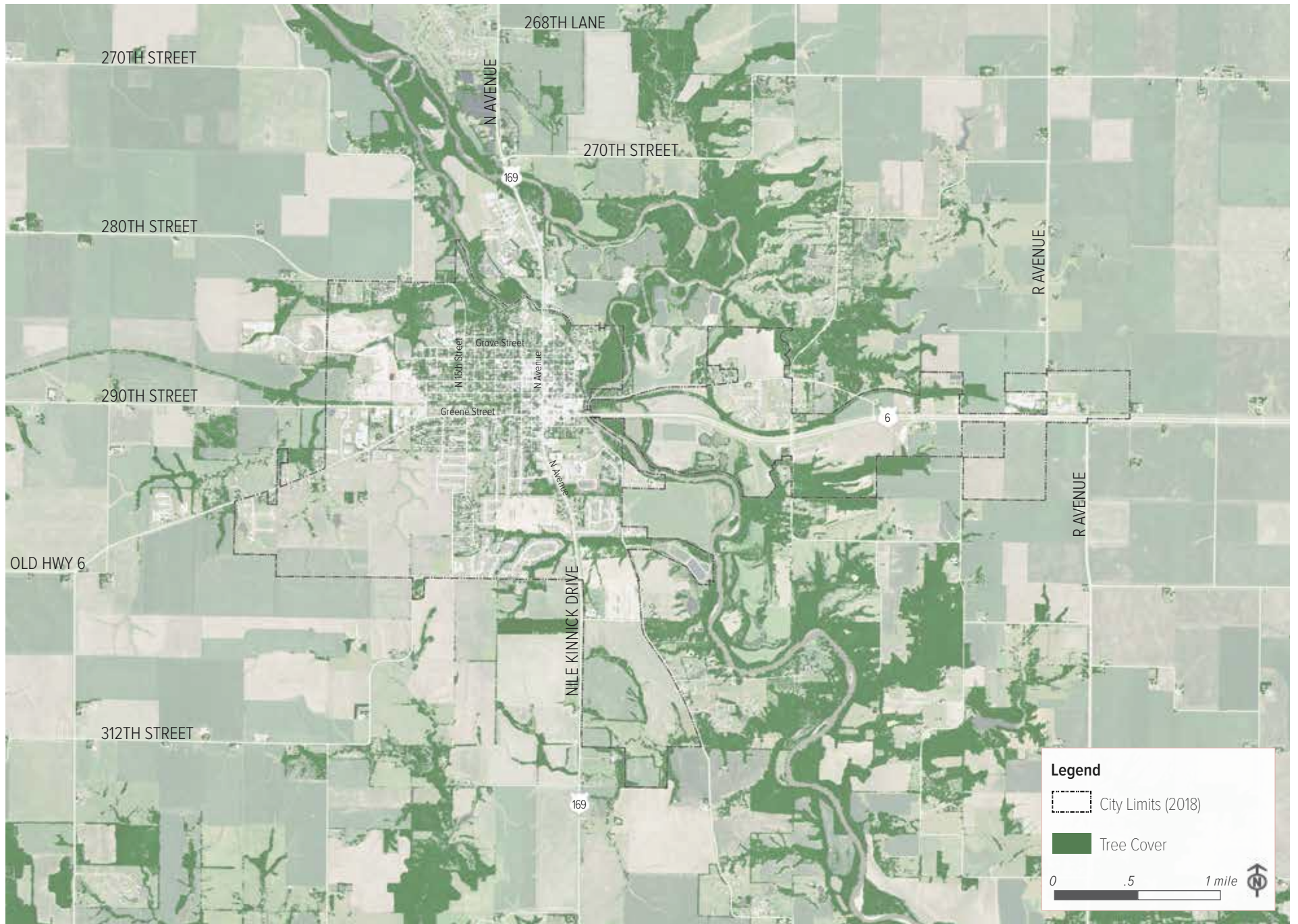


Figure 4.3 Tree Cover

Data Source: Iowa DNR

# NATURAL RESOURCES

## SLOPED AREAS

Steep sloped or hilly areas are often beautiful and interesting places to live and explore. Steep slope areas are also environmentally sensitive and vulnerable to erosion and degradation if improperly maintained or developed. When areas with steeper slopes are not well maintained and vegetation is lost, the area can become hazardous and susceptible to erosion. The erosion of sloped areas near stream banks or other water bodies can lead to water quality issues through the introduction of fine sediment in streams or silt build-up in lakes or ponds. Other important environmental issues related to slope management include the potential for loss of topsoil, disruption of wildlife habitat, alteration of drainage patterns and the intensification of flooding<sup>1</sup>.

Approximate slopes for Adel were calculated using LiDAR data and are shown in Figure 4.4. In general, the areas around Adel with higher slope follow the overall drainage pattern of the area. The rolling hills surrounding Adel present both challenges and opportunities for this growing community.

## IMPACT ON THE PLAN

The City should consider adopting a steep slope ordinance that places certain restrictions and requirements for development in areas with more than a certain percentage of slope, generally 15 to 25% slope. Steep slope regulation is generally deployed through zoning and subdivision ordinances. These ordinances work by limiting the type of land uses located on or near steep slopes.

“Steep” slopes will vary based on the area with some cities beginning regulation at 15% and others at 25%. Others vary the regulation threshold based on use such as 40% for non-residential and 25% for residential land uses. Possible categorization could include:

- Steep (18-25%)
- Critical (25-39%)
- Protected (40%+)

<sup>1</sup> Design for Flooding: Architecture, Landscape, and Urban Design for Resilience to Flooding and Climate Change. Donald Watson-Michele Adams - John Wiley & Sons - 2011





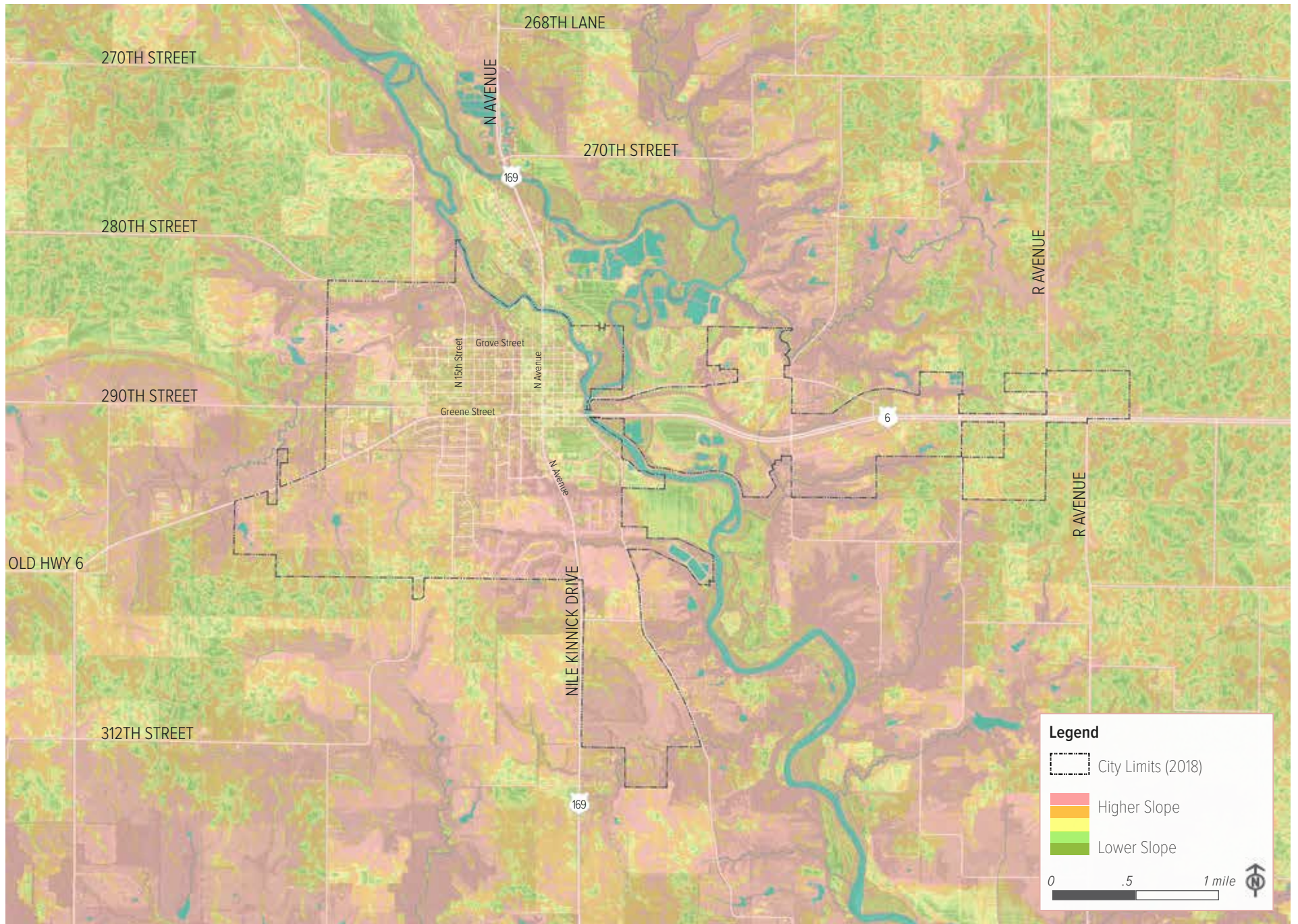


Figure 4.4 Slope Analysis

Data Source: State of Iowa



# NATURAL RESOURCES

## WETLANDS

Wetlands are defined by the EPA as “areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time<sup>1</sup>.” These important biological areas perform a variety of ecological functions including:

- Recharge groundwater
- Reduce flooding or severity of flooding
- Improve water quality
- Regulate climate
- Support recreation and cultural activities
- Wildlife habitat and nesting sites
- Filter stormwater

### **Emergent Wetlands**

Emergent wetlands are those usually dominated by perennial plants with vegetation present for most of the growing season. In prairie areas, like those in Iowa, these wetlands can become open water depending on water levels that year. Emergent wetlands are commonly called marsh, meadow, fen, prairie pothole and slough<sup>2</sup>.

### **Forested Wetlands**

Forested wetlands are those usually dominated by trees and shrubs. Forested wetlands can help support soil’s ability to absorb runoff water during high water events. In Adel, the forested wetlands are generally those along the banks of the North Raccoon River.

Figure 4.5 shows the approximate location of known wetlands in Adel, Iowa.

## IMPACT ON THE PLAN

Wetlands are protected through the Clean Water Act in Section 404. Section 404 requires that parties apply for a permit to fill in a wetland. The U.S. Corps of Engineers provides the characteristics that define a wetland and are responsible for deciding if an area will be regulated as a wetland. Wetland delineation is the process by which wetland determinations are made. While there are certain legal protections and remedies in place for dealing with wetlands, at a local level Adel can protect these important environmental features by promoting the preservation of wetland areas or those areas likely to contain wetlands such as floodplain, stream banks and dense tree cover.

<sup>1</sup> EPA. What is a Wetland?. U.S. Environmental Protection Agency website, <https://www.epa.gov/wetlands/what-wetland>, accessed on 6/05/19.





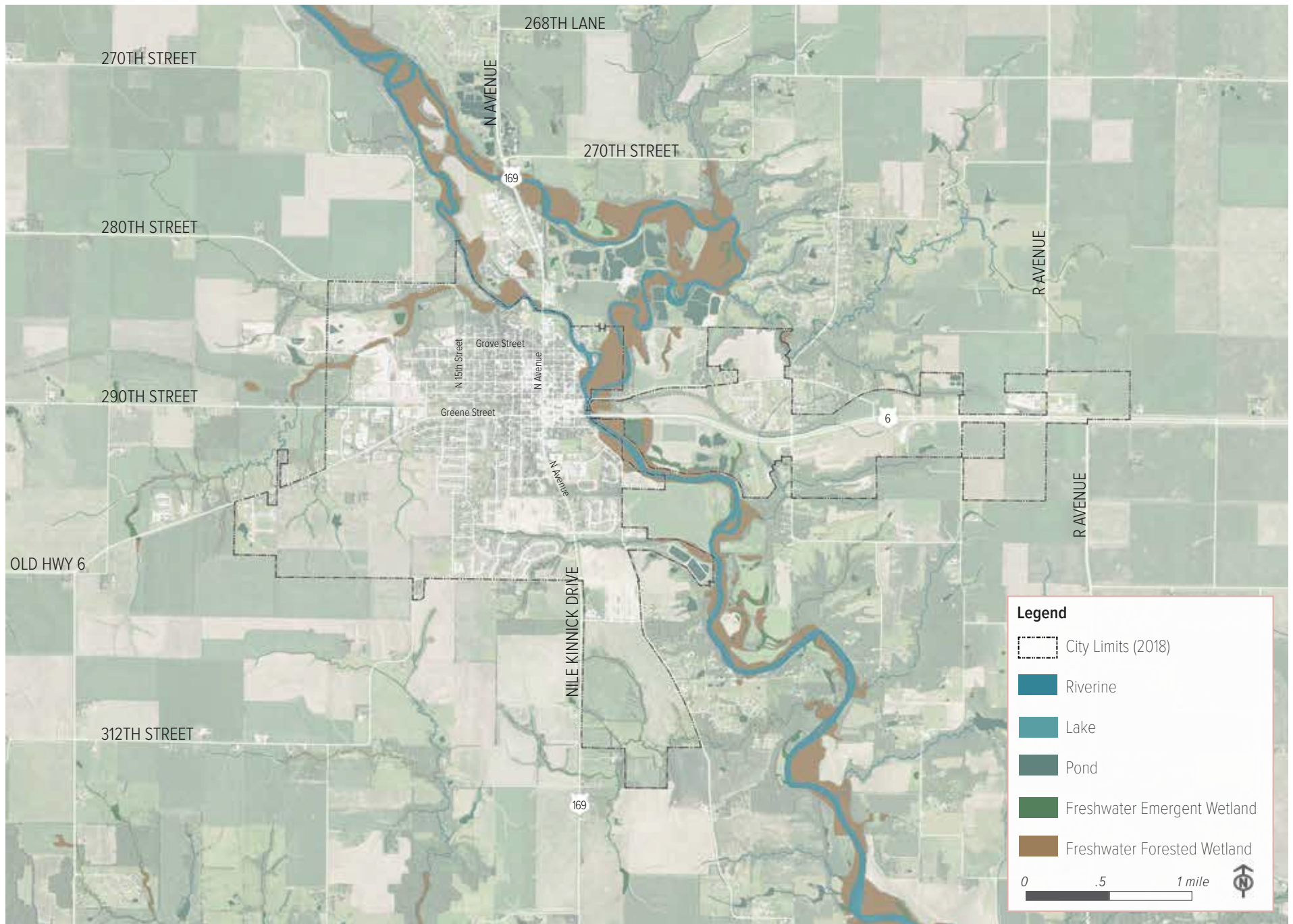


Figure 4.5 Known Wetlands

Data Source: Department of Natural Resources / U.S. F&W



# NATURAL RESOURCES

## WATERSHEDS

Watersheds can simply be defined as the boundaries from which water drains within an area. Watersheds can range from being smaller (as shown in Figure 4.6 for Adel) to very large, covering multiple states and regions of the United States. For instance, the Mississippi River Watershed covers 31 U.S. states and two Canadian provinces<sup>1</sup>. Watersheds include the streams and creeks that carry water downstream into a larger body of water, but also includes the water that infiltrates the ground or water from rain or snowmelt that becomes runoff and eventually enters a stream or creek. The major watershed in Adel is the Raccoon River Watershed.

### **Raccoon River Watershed**

The Iowa Department of Natural Resources (DNR) hired Agren, Inc. to complete a master plan for the Raccoon River Watershed in 2011. According to the report, the Raccoon River Watershed drains 2.3 million acres in west-central Iowa and is a tributary of the Mississippi River Basin which drains to the Gulf of Mexico. Adel is at the southern edge of the watershed which begins in Buena Vista County. The North Raccoon River which traverses Adel near its downtown is the largest stream in the watershed. Water from this watershed is used by Des Moines Water Works for drinking water in addition to being a popular recreation source. The Iowa DNR collects water quality data and has noted elevated levels of nitrogen, phosphorus, sediment and bacteria in the system. According to the Iowa DNR, the nitrate-nitrogen levels in the Raccoon River watershed are among the highest in the entire United States. Pollution in the Raccoon River watershed can be traced back to many sources including the prevalence of agricultural land uses in the watershed.

## IMPACT ON THE PLAN

Watershed management issues often require collaboration at a regional, state, or multi-state level. However, Adel can help promote watershed health locally through promoting and following best practices for watershed management. This includes maintaining riparian buffers along streams, reducing impervious surface near drainageways, protecting tree cover and undeveloped land in the floodplain and promoting green infrastructure best management practices for stormwater management such as bio-swales and rain gardens.

<sup>1</sup> NOAA. What is a Watershed?. National Ocean Service website, <https://oceanservice.noaa.gov/facts/watershed.html>, 6/25/18.



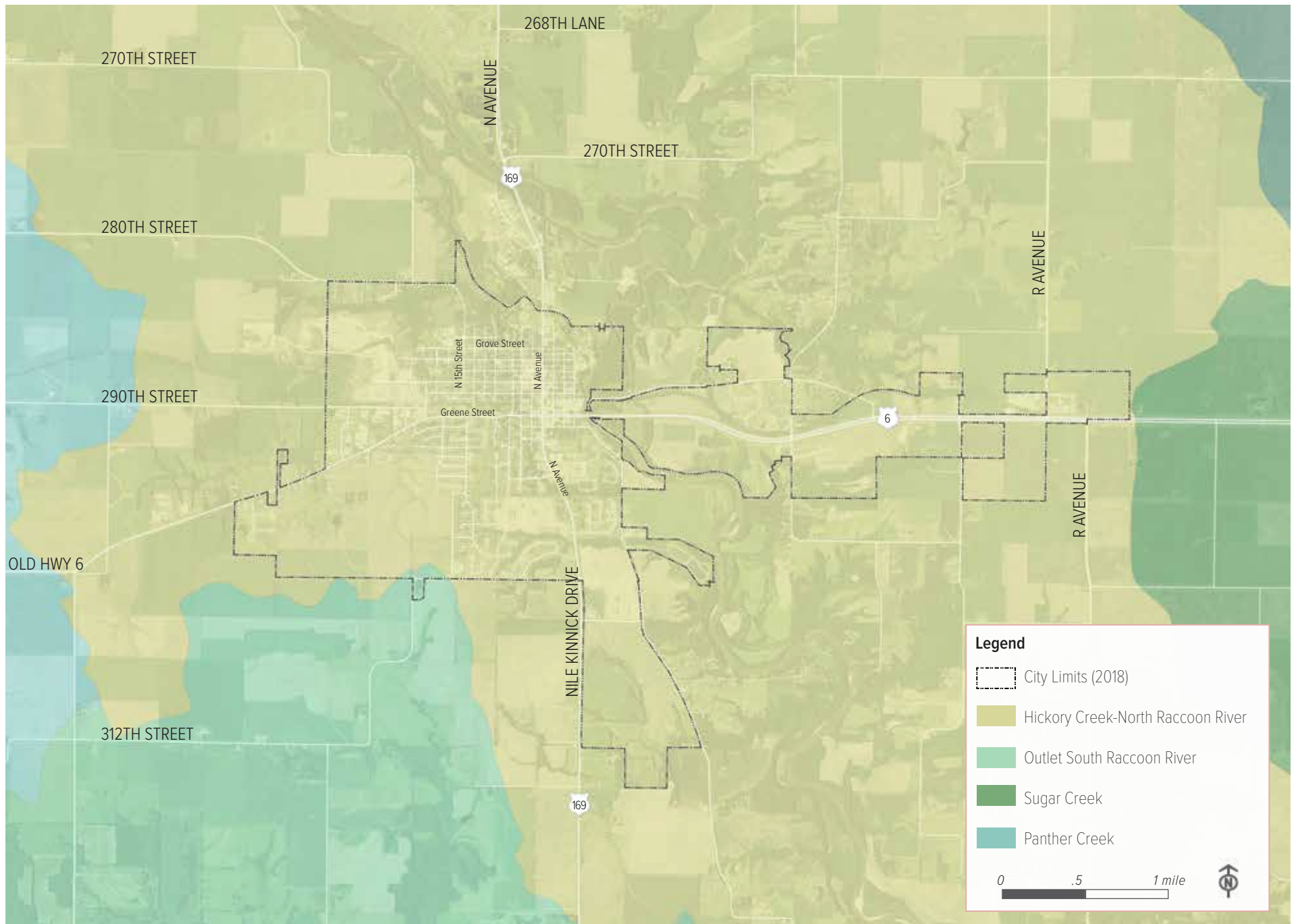


Figure 4.6 Watersheds

Data Source: Department of Natural Resources







# PARKS & RECREATION

## *PARK OVERVIEW & EXPANSION PLAN*



## PARKS & RECREATION OVERVIEW

Adel's park system includes a mixture of park types that provide options for a wide range of ages and abilities. A 2017 Comprehensive Park and Open Space Plan completed for the City of Adel estimates 205 acres of developed park land acres and an additional 64 acres of undeveloped parkland, totaling 270 acres of total park space. Not all of the land considered park land is owned or managed by the City, however, access for residents come from the result of partnerships with other organizations including the Dallas County Conservation Board and the Raccoon Valley Bank. The City of Adel currently maintains 150 acres of public space.

### **Adel Parks & Recreation Mission Statement**

The mission statement of the Adel Parks & Recreation is, "To provide the community with high quality leisure facilities, recreational, and cultural opportunities."

### **Adel Comprehensive Park and Open Space Plan**

The City of Adel approved a new Comprehensive Park and Open Space Plan in January 2017. The report is a planning document meant to be used to guide future Adel park system improvements and acquisitions. Further, the plan identified goals and recommendations for the future development of parks with Adel and related policies. Chapter 5 - Parks & Recreation will rely heavily on the analysis and recommendations provided in this recently adopted plan building up on the work if necessary.

### **Adel Parks & Recreation Board**

The City of Adel Parks & Recreation Board develops policy and rules governing parks, pool and cemeteries. The Board helps plan overall park development and advises City Council on the facilities needed for recreation. Further, the Board serves as the City's Tree Board that is tasked with studying, investigating and developing a written plan for the care, preservation, pruning, planting, replanting, removal or disposition of trees and shrubs in parks, along streets and in other public areas.

## COMMUNITY BENEFITS OF PARKS

Four categories of park benefits were identified in the Adel Comprehensive Park and Open Space Plan: economic, health, social and environmental. Economic benefits include increased property values, business and resident attraction and retention, increased visitors and cost savings from park's natural stormwater infrastructure.

### **Health Benefits**

- Increases opportunities for physical activity
- Improved mental health
- Beneficial child development

### **Social Benefits**

- Building a sense of community
- Encourage stewardship
- Provide recreational opportunities

### **Environmental Benefits**

- Pollution abatement
- Improved air quality
- Reduced soil losses
- Stormwater management
- Plant / wildlife diversity habitat

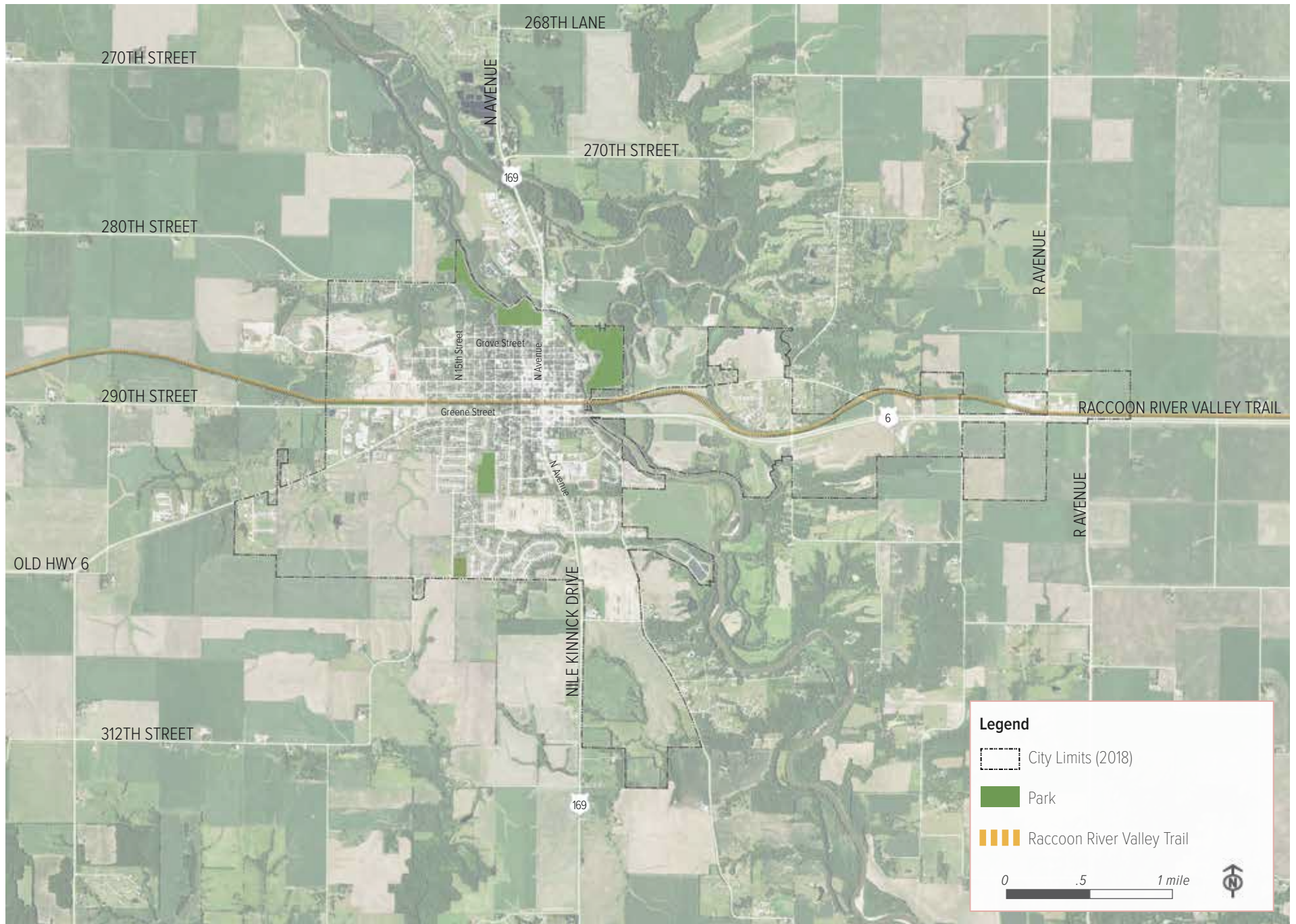


Figure 5.1 Parks and Trails

Data Source: City of Adel



# PARKS & RECREATION

## PARK CATEGORIES

The 2017 Adel Comprehensive Park and Open Space Plan identified a set of park categories that will also be used in the Envision Adel 2040 Comprehensive Plan. Park categories help users and the city understand the expectations required of each park in terms of nearby land use planning, facility planning / expansion, level of service requirements and the type of amenities expected.

The following definitions have been adopted from the Adel Comprehensive Park and Open Space Plan.

### **Neighborhood Parks**

Neighborhood Parks serve as anchors in a community as they are often the social and recreational focal areas for residential neighborhoods. They are designed to accommodate unstructured recreation activities and typically include amenities such as playground equipment, open picnic areas, turf multi-purpose open space and trails. Neighborhood parks will also often include various courts and field space. They are often located within walking or biking distance to most residents, which often equates to between 1/4 to 1/2 mile. Typical size of a neighborhood park is between 1 and 10 acres.

### **Community Parks**

Community Parks are designed to provide community-based recreational needs in addition to preserving unique landscapes and open spaces. They often include areas both for intense recreation activity (athletic facilities or community gathering space) and access to natural areas (wetlands or woodlands). Due to the wider population served, off-street parking facilities and restrooms are often required. Community parks can act as neighborhood parks (service area of 1/4 to 1/2 mile) or attract people from a wider 1 to 3-mile radius. Size of community parks will vary based on function but tend to be between 30 and 50 acres.

### **School Parks**

School Parks are those park areas adjacent to or on school property. School Parks may have limited access or have restricted access during school hours but can still fulfill some recreational needs of the community. Adel Elementary School has a new playground and proposed trail loop that helps to fill a neighborhood park gap in the northwest corner of the City.







## PARK CATEGORIES

### **Linear Parks**

Linear Parks include natural and/or built corridors that provide connections between various parks, neighborhoods and community features. Local examples of linear parks in Adel would be the system along the Raccoon River Valley Trail. Linear Parks generally support trail activities such as walking, jogging, biking and roller skating. Linear Parks can incorporate park amenities such as picnic tables, benches or exercise stations. These connections provide a safer passageway for bikes and pedestrians throughout the community. Areas suitable for Linear Parks include old railroad lines, designated wildlife corridors or riparian corridors along streams.

### **Special Use Parks**

Special Use Parks are parks that serve a specific purpose within the park system. These parks often host aquatic centers, sports complexes, golf courses, dog parks, or archery ranges. The service area for a special use park will depend on the special function or facility provided but may attract people from a wider geographic area that may require off-street parking or restrooms.

### **Natural Areas**

Natural Areas are open areas set aside for conservation and passive recreation. The primary purpose of Natural Areas are to protect important environmental features such as stream corridors, wetlands or forested areas. The passive recreation typically occurring in a Natural Area include trails, bird and wildlife viewing, photography, and educational experiences.

### **Community Features**

Community Features are sites that have cultural or historical significance. These sites may act as gathering spaces for community events or locations for education and passive recreation. In Adel, the Community Features are owned and/or managed by other entities but provide an important recreation space for residents.

## LEVEL OF SERVICE ANALYSIS

Level of service analyses are a common way to measure how well a community is served by its park system based on the number of acres or facilities per 1,000 residents. Table 5.2 shows the total park acre summary for Adel from the Adel Comprehensive Plan and Open Space Plan in 2017. The chart summarizes the total acres of developed and undeveloped park acres by park type.

Level of service analysis (LOS) can be performed based on total park acres or by specific park types. Table 5.3 shows the overall park acre and detailed park category LOS numbers for Adel as performed for the City's current Comprehensive Parks & Open Space Plan for developed acres and total acres. Currently, Adel is underserved in terms of neighborhood parks but well-served in terms of total park acres. Neighborhood parks are important social anchors in a community and the expansion and distribution of neighborhood parks should be prioritized throughout the planning boundary as Adel expands.

Table 5.1 Park Acre Summary

Park Acre Summary - Adel, Iowa	
Jurisdiction	LOS
City of Huxley	17.0
City of Des Moines	19.0
City of Adel	19.3
Median in Midwest	10.97
Median for Populations 500-1,500 per square mile (upper-quartile)	18.67
Median for Populations 500-1,500 per square mile	9.74
Median Acres for Populations (< 20,000)	10.59
Median Acres for Budgets up to \$1 million	8.33
Median Acres for City Managed Park System	10.2
Median Acres (All Agencies)	9.47

Source: Adel Comprehensive Parks and Open Space Plan 2017

Table 5.2 Park Acre Summary

Park Acre Summary - Adel, Iowa			
Park Type	Developed	Undeveloped*	Total Acres
Neighborhood Park	5	4	9
Community Park	50	58	109
Special Use Park	44	0	44
Community Feature Site, School Sites or Linear Parks that fulfills Neighborhood Park Services	12	0	12
<b>TOTAL</b>	<b>111</b>	<b>62</b>	<b>173</b>

Source: Adel Comprehensive Parks and Open Space Plan 2017

Table 5.3 LOS Analysis Summary

Park Type	Developed Acres	Developed LOS	Total Acres	Total LOS
Neighborhood Park	5	1.0	9	1.8
Community Park	50	10.1	110	22.2
All Parks	150.6	30.4	312	63.0
Total 2018 Population	4,954			

Source: Adel Comprehensive Parks and Open Space Plan 2017

Table 5.4 Park Acre Summary (Adel 2017)

<b>Parks, Open Space &amp; Community Features - Adel, Iowa</b>				
<b>Neighborhood Parks</b>	<b>Developed</b>	<b>Undeveloped*</b>	<b>Leased</b>	<b>Total Acres</b>
Baileys Grove Neighborhood Park	5	0	0	5
Clover Valley Neighborhood Park	0	3	0	3
Southbridge Park	0	1	0	1
			Subtotal	9
<b>Community Parks</b>				
Kinnick-Feller Park	21	2	0	23
Evans Park	14	0	0	14
Island Park	15	46	1	62
Water Tower Park - Adel Sports Complex	0	10 (possibly 40)	0	10
			Subtotal	109
<b>Linear Parks</b>				
Brickyard Park	3	0	0	3
Raccoon River Valley Trail (w/ Plaza Pedal & Trailhead)	41	0	0	41
			Subtotal	44
<b>Special Use Parks</b>				
Adel Archery Range	5	0	0	5
Adel Aquatic Center	7.5	0	0	8
Adel Dog Park	1	0	0	1
Adel Little League Baseball Fields	8	0	0	8
			Subtotal	22
<b>Community Features</b>				
Raccoon Bank Pavilion & Community House	0.6	0	0	0.6
Dallas County Courthouse & Town Square	2	0	0	2
Dallas County Fairgrounds*	61	0	0	61
Adel Cemetery	20	0	0	20
			Subtotal	83
<b>School Sites</b>				
All School Sites	8	0	0	8
			Subtotal	8
<b>TOTAL</b>	<b>212.1</b>	<b>62</b>	<b>1</b>	<b>276</b>
Source: Adel Comprehensive Plan and Open Space Plan 2017				
*Located outside of current city limits but still included given its proximity				



## WALK TIME ANALYSIS

Ideally, a community should strive to have most, if not all, residents living within a 5, 10, or 15-minute walk time to a park. While this can be a high benchmark to achieve as a community grows, it is an excellent way to assess how well-served a community is for park and open space. A walk time analysis was completed for the major existing and planned park facilities in Adel. Figure 5.2 shows the estimated walk time boundaries for Adel using ArcGIS technology. While the assessment is only an estimate, it can provide helpful information about park access and walkability within a community.

The walk time analysis was completed on Adel's existing major park facilities:

- Evans Park
- Little League Ballfields
- Kinnick-Feller Riverside Park
- Brickyard Park
- Aquatic Center
- Dog Park
- Community Stage & Pavilion
- Archery Range
- Island Park

Generally, a large portion of Adel falls within these 5- and 10-minute walking distances. There are a few areas with newer homes that fall outside the buffer area. However, this lack of coverage may be a result of an older street grid being used by ArcGIS. Further, there are planned parks in the area south of Greene Street that are not currently covered.

## BUFFER ANALYSIS

Ideally, most residents in Adel should be within a specified service area of a park. Different park categories have different service areas, but a general rule is to assess the ¼ and ½-mile buffer distances from parks to assess how well a community is served. Figure 5.3. shows the approximate buffer distances around the major existing and planned park facilities in Adel. Generally, Adel is well served by the distribution of park facilities within their community. As the community grows, especially around residential areas, the distribution of parks should be similar to the current distribution to ensure the entire community remains connected to parks and open space.

## FUTURE PARK BUFFERS

Figure 5.4 shows the location of half-mile buffers around existing parks in Adel as well as possible new buffer areas for new neighborhood or community parks in Adel's planning boundary. In the map, the areas with proposed new low, medium and high density residential are shown. Then, half-mile buffer areas are placed over top to visualize how park expansion may occur in Adel based on the geographic distribution of land uses proposed in the Future Land Use Plan. Not all areas of the planning boundary will likely develop within the planning boundary, but this map helps visualize how residential growth will impact the spread and expansion of Adel's park service areas.

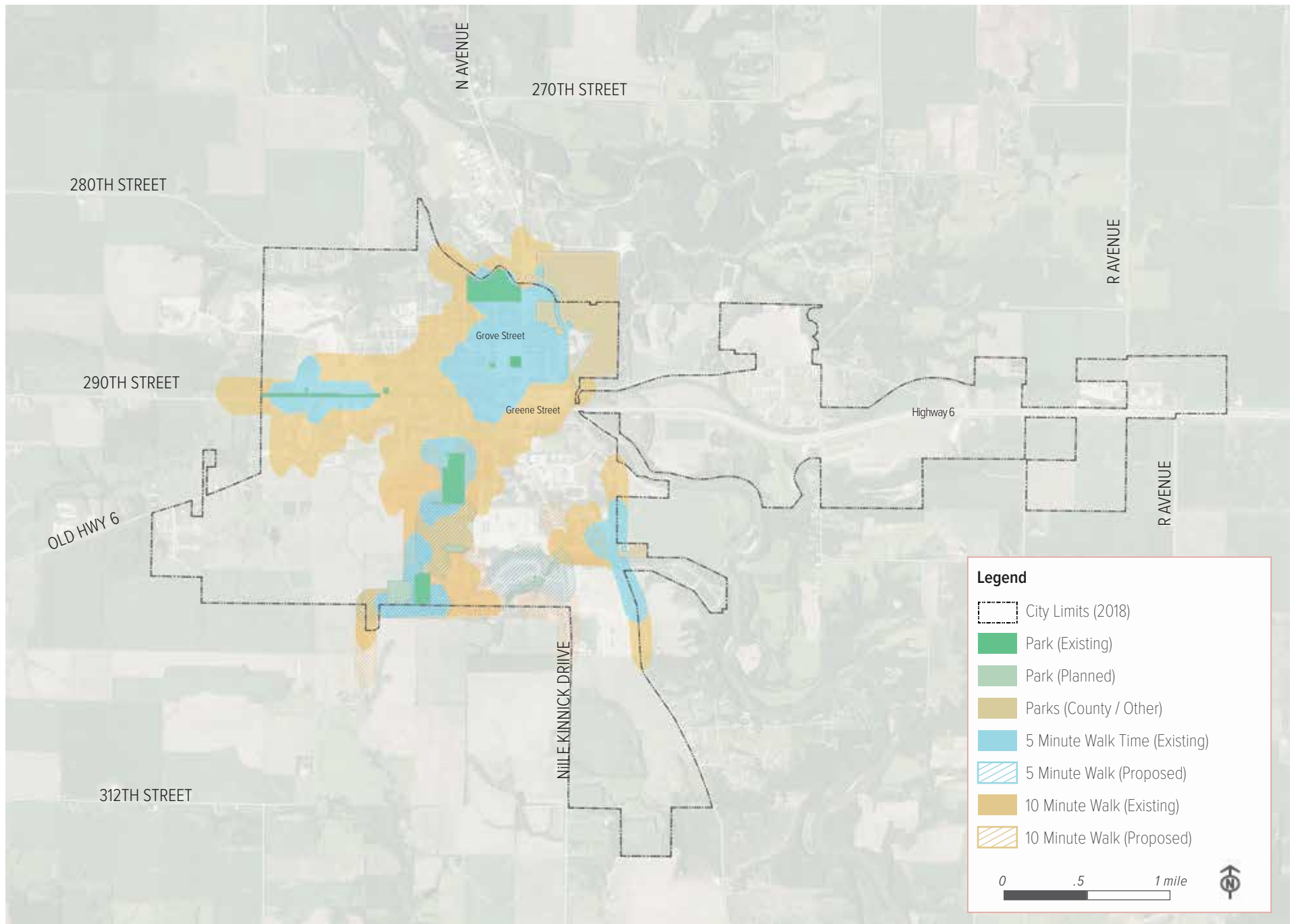


Figure 5.2 Park Walk Times (5 / 10 Minutes)

Data Source: City of Adel

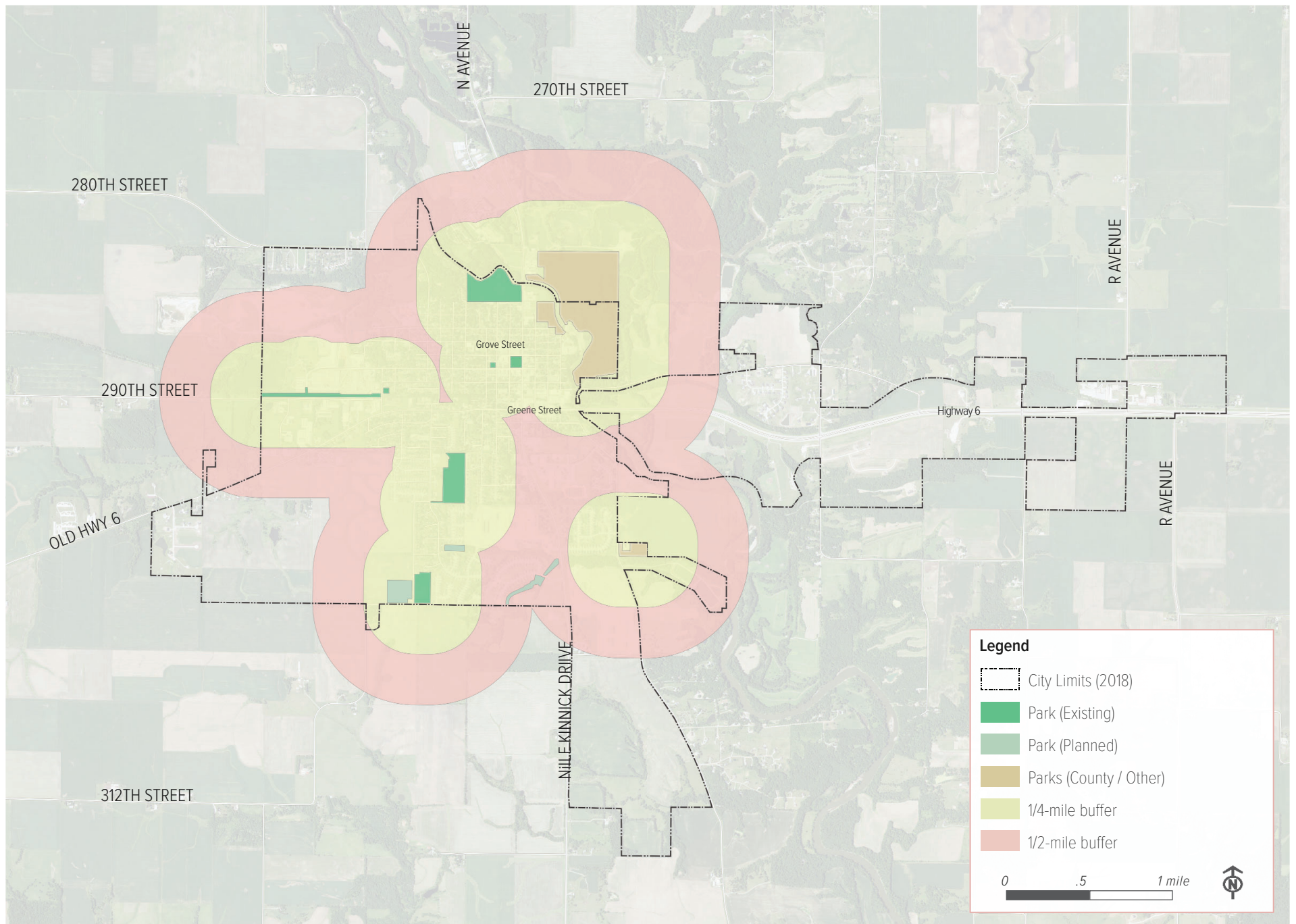


Figure 5.3 Park Buffers

Data Source: City of Adel



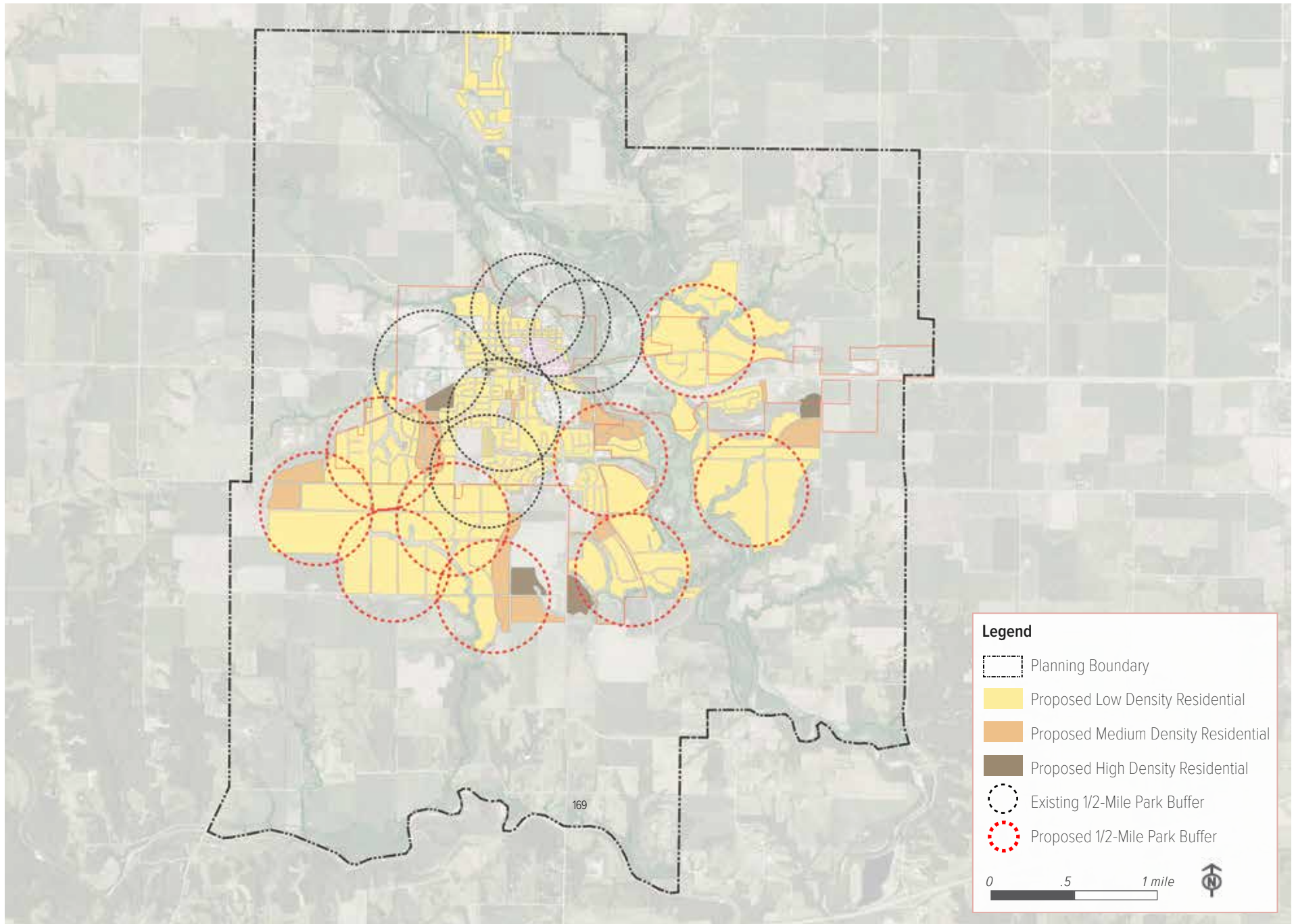


Figure 5.4 Parks Service Area Map

Data Source: City of Adel





# HOUSING

## *HOUSING OVERVIEW & STRATEGY*





## HOUSING INTRODUCTION

Housing in Adel is predominantly defined by single-family homes. Historically, most homes in Adel were older with many built before 1939 or in the 1970s. However, a residential tax abatement program combined with Adel's unique position within the growing western metro of Des Moines, Iowa, has brought a significant influx in new construction in the past decade. While the U.S. Census Bureau lists that approximately 20% of single-family homes in Adel were built after 2000, recent review of parcel data and familiarity with the area suggests this number may be significantly higher. This housing expansion has been a defining feature for Adel and housing routinely came up during public engagement as a major issue for the community. In this chapter, housing data in Adel is reviewed to look for trends, opportunities and challenges.

## HOUSING OPTIONS IN ADEL

### Single-Family Homes

Single-family homes account for the majority of all housing units available in Adel. According to Dallas County tax assessor data, nearly 96% of all housing units available in Adel are single-family homes. The average assessed value according to parcel data in 2019 is \$249,196. The median year built for homes in Adel is 1993 and the mode for year built is 2018. The average number of bedrooms for single-family homes is 3.25 and the average square foot of total living area is 1,643.

### Townhomes

As of 2019, there were approximately 44 townhomes located in Adel. Adel's oldest townhome was constructed in 1978 and the most recent in 2016. Approximately 70% of the townhomes in Adel were constructed after 2000. The average assessed value for all townhomes in Adel is \$192,227. The older townhomes, those built before 2000, have an average assessed value of \$164,305 and those built after 2000 have an average assessed value of \$206,692.

### Apartments and Condominiums

As of 2019, there were two apartment or condominium buildings in Adel, Iowa. One of the apartment buildings had 24 units available and the other had been converted into a private condominium building. Both buildings are older, built in the 1980s. In general, multi-family housing options are not widely available in Adel.

### Other Housing Options

As of 2019, there were 27 housing units that were either a two-family flat, two-family duplex, two-family home conversion, three-family home conversion, or five-family home conversion. The multi-unit home conversions are mainly older homes built in the late 1800s or early 1900s. These homes have an average assessed value of \$154,271. Half of these other housing unit types are two-family duplexes. The average assessed value of an Adel duplex is \$169,020. While these housing types are in a minority for Adel, they do offer some variety in the choices available for Adel residents.





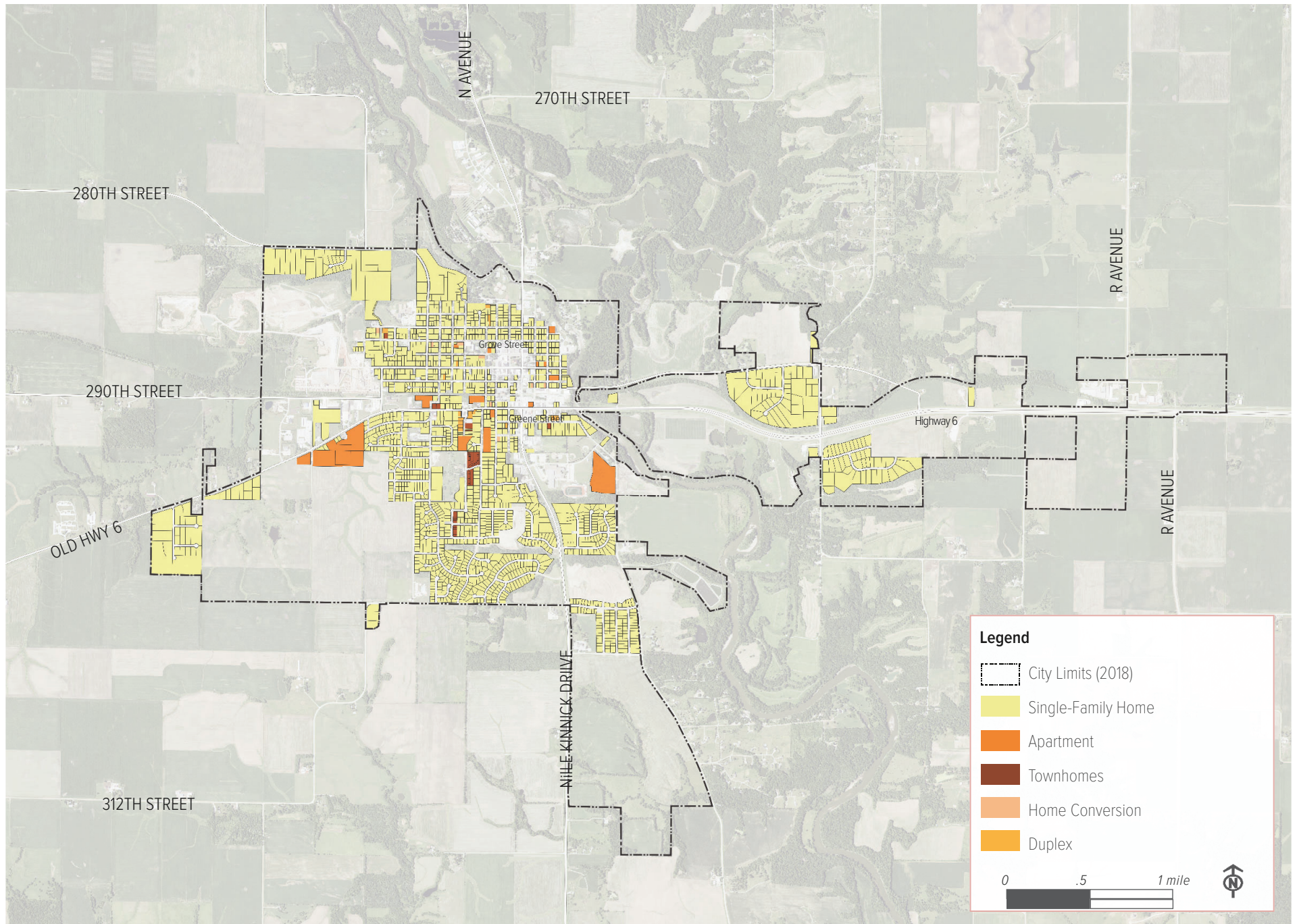


Figure 6.1 Existing Housing, Adel (2019)

## HOUSING CHARACTERISTICS IN ADEL

Most of the housing statistics referenced in the text below is from the U.S. Census Bureau American Community Survey 2013-2017 5-year Estimates or 2019 Dallas County Parcel Data. Any other sources will be referenced directly.

### Housing Type + Diversity

According to 2019 Dallas County tax assessor data, 96.8% of all housing units in the Adel area are single-family homes. Approximately 2% of the remaining housing units were townhomes. The remaining 1.2% are composed of other housing types such as multi-unit home conversions, duplexes and flats. This housing composition is not unusual for a small suburban town on the outer edge of a growing metropolitan area. However, as Adel grows it may consider diversifying the availability of housing types to provide options for a variety of lifestyles, age, and income ranges.

### Age of Housing

The U.S. Census Bureau estimates for housing age is shown in Table 6.1. Census data suggests nearly a quarter of all housing units were built in 1939 or earlier. Another nearly 20% were built in the year 2000 or later. While this census data suggests a significant amount of new construction in Adel, parcel data from 2019 indicates the number of new construction homes is much higher. Dallas County parcel data reveals a substantially newer housing stock composition with approximately 44.9% of the homes built in the year 2000 or later. The complete breakdown of Dallas County data for 2019 is shown in Table 6.2. This data suggests the average year built of 1980, median year built is 1993 and the most common (mode) year built is 2018.

Table 6.1 Year Structure Built, Adel (2017)

Year Structure Built - Adel, Iowa ( 2017)		
Value Range	Count	Share
Built 2014 or later	97	5.8%
Built 2010 to 2013	44	2.6%
Built 2000 to 2009	177	10.6%
Built 1990 to 1999	175	10.4%
Built 1980 to 1989	141	8.4%
Built 1970 to 1979	313	18.7%
Built 1960 to 1969	143	8.5%
Built 1950 to 1959	158	9.4%
Built 1940 to 1949	22	1.3%
Built 1939 or earlier	407	24.3%
<b>TOTAL</b>	<b>1,280</b>	<b>100%</b>

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Table 6.2 Adel Homes by Year Built & Average Assessed Value (2019)

Adel Homes by Year Built + Average Assessed Value by Age Range (2019)			
Year Built	Count	Share	Average Assessed Value
Built Before 1920	249	11.6%	\$145,411
Built Between 1920 and 1939	103	4.8%	\$132,939
Built Between 1940 and 1959	184	8.6%	\$143,286
Built Between 1960 and 1979	389	18.1%	\$185,170
Built Between 1980 and 1999	257	12.0%	\$225,510
Built 2000 and Later	965	44.9%	\$340,695
<b>TOTAL</b>	<b>2,147</b>	<b>100%</b>	<b>\$249,196</b>

Source: Dallas County 2019 tax assessor data



Table 6.3 Housing Tenure &amp; Size (2017)

Housing Tenure - Adel, Iowa (2017)		
	Count	Share
Owner-Occupied Units	1,665	100.0%
Owner-Occupied	1,280	76.9%
Renter-Occupied	385	23.1%
Average Household Size of Owner Occupied Unit	2.57	
Average Household Size of Renter-Occupied Unit	1.82	
Average Total Household Size		
Average Family Size		

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Table 6.4 Year Householder Moved into Unit (2017)

Year Householder Moved into Unit - Adel, Iowa (2017)		
	Count	Share
Moved in 2015 or later	156	9.4%
Moved in 2010 to 2014	433	26.0%
Moved in 2000 to 2009	639	38.4%
Moved in 1990 to 1999	175	10.5%
Moved in 1980 to 1989	126	7.6%
Moved in 1979 or earlier	136	8.2%
TOTAL	1,665	100.0%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

**Housing Occupancy and Tenure**

In 2017, the estimated occupancy rate for Adel was 99.3% occupied. With less than 1% of housing units sitting vacant, it does not appear as if there is much excess housing supply in Adel. Approximately 76.9% of housing units in Adel are owner-occupied and the remaining 23.1% are renter occupied. Owner-occupied households in Adel tend to be larger with an average household size of 2.57. Renter-occupied households are smaller with an average household size of 1.82. Table 6.3 summarizes this data.

**Year Householder Moved into Unit**

There is data to suggest that people in Adel are moving households with more frequency in recent years. Table 6.4 shows the breakdown of housing units by year the householder moved into the unit. Approximately 38.4% of householders moved into their current housing unit between 2000 to 2009. Another 26% of householders moved into their household between 2010 and 2014. While a large segment of the community has been in their current housing unit for less than twenty years, there is another 15.8% of householders who have been in their home for 30 years or longer. This data confirms there is a mixture of very new and very long-time residents living in Adel.

HOUSING CHARACTERISTICS IN ADEL

Housing Costs + Affordability

Housing values for owner-occupied units are shown in Table 6.6. The three main value categories are \$100,000 to \$149,999, \$150,000 to \$199,999, and \$200,000 to \$299,999. The 2017 U.S. Census Data numbers show a median owner-occupied home value of \$163,900. Table 6.5 shows the Dallas County 2019 average assessed value for homes in Adel categorized by year built. The average assessed value for all homes in Adel according to tax assessor data in 2019 is \$249,196. The highest assessed value homes in Adel are those built in 2000 and after with an average assessed value of \$340,695. The lowest assessed value homes in Adel are those built between 1920 and 1939 with an average assessed value of \$132,939. In general, older homes have lower the average assessed values. The exception to this trend is homes built before 1920 that have an average assessed value of \$145,411 which is higher than those built between 1920 and 1939 and those built between 1940 and 1959.

To assess housing costs and affordability in Adel, monthly owner costs for units with a mortgage and gross rent for renter-occupied units were assessed. It is important to understand not only how much residents are spending on mortgages or rent each month, but also what percentage of their total household income is dedicated to this cost. Generally, experts suggest spending less than one-third (1/3) of a household income on housing costs. The data suggests that owner-occupied households appear more likely to be living in affordable housing for their budget compared to renter-occupied households.

Nearly half of housing units with a mortgage pay between \$1,500 to \$1,999 per month. Another 20% spend between \$500 to \$999 per month. While few families spend more than \$2,500 per month on housing costs, roughly 25% of residents with a mortgage pay between \$1,500 and \$2,499 per month on housing costs. The median monthly cost of housing for units with a mortgage is \$1,269 per month. In general, Adel residents with mortgages seem to be able to afford their housing costs. Tables 6.7 and 6.8 show monthly owner costs for units with a mortgage as a percentage of household income. Nearly sixty percent of residents with a mortgage spend less than 20% of their household income on housing. Another roughly 18% spend between 20 to 24.9% of household income on housing. Approximately 11.9% of households with a mortgage spend more than 35% of household income on their mortgage and other housing costs.

The estimated median rent for renter-occupied units is \$711 per month. Half of all renter-occupied households pay between \$500 and \$999 per month. Another third

of renters pay less than \$500 per month. The remaining 16% spend between \$1,000 and \$1,999 per month on rent. Renters in Adel spend a more significant percent of their income on housing costs compared to owner-occupied households. Nearly forty percent of renters spend 35% or more of monthly household income on rent. Another 12.5% spend between 30 and 34.9% of their household income on rent.

Table 6.5 Assessed Values (Single-Family) Adel (2019)

Value Range	Count	Share
Less than \$50,000	22	1.2%
\$50,000 to \$99,999	158	8.8%
\$100,000 to \$149,999	358	20.0%
\$150,000 to \$199,999	316	17.6%
\$200,000 to \$299,999	470	26.2%
\$300,000 to \$399,999	347	19.4%
\$400,000 to \$649,999	112	6.2%
More than \$650,000	10	0.6%

Source: Dallas County Assessor 2019

Table 6.6 Home Values (owner-occupied) (2017)

Home Values (owner-occupied) - Adel, Iowa ( Est. 2017)		
Value Range	Count	Share
Less than \$50,000	118	9.2%
\$50,000 to \$99,999	99	7.7%
\$100,000 to \$149,999	301	23.5%
\$150,000 to \$199,999	298	23.3%
\$200,000 to \$299,999	313	24.5%
\$300,000 to \$499,999	138	10.8%
\$500,000 to \$999,999	13	1.0%
\$1,000,000 or more	0	0.0%
Median Home Value (owner-occupied units)	\$163,900	

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Table 6.7 Monthly Housing Costs, Mortgaged Units (2017)

Monthly Owner-Costs - Units with a Mortgage - Adel, Iowa (2017)		
	Count	Share
Housing Units with a Mortgage	892	100.0%
Less than \$500	20	2.2%
\$500 to \$999	180	20.2%
\$1,000 to \$1,499	427	47.9%
\$1,500 to \$1,999	130	14.6%
\$2,000 to \$2,499	92	10.3%
\$2,500 to \$2,999	35	3.9%
\$3,000 or more	8	0.9%
Median Monthly Costs	\$1,269	

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Table 6.8 Monthly Housing Costs as % Household Income (2017)

Monthly Owner-Costs as Percentage of Household Income Units with a Mortgage - Adel, Iowa (2017)		
	Count	Share
Housing Units with a Mortgage	892	100.0%
Less than 20%	507	56.8%
20% to 24.9%	159	17.8%
25% to 29.9%	96	10.8%
30% to 34.9%	24	2.7%
35% or more	106	11.9%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Table 6.9 Gross Rent (2017)

Gross Rent - Adel, Iowa (2017)		
	Count	Share
Occupied Units Paying Rent	363	100.0%
Less than \$500	121	33.3%
\$500 to \$999	183	50.4%
\$1,000 to \$1,499	59	16.3%
\$1,500 to \$1,999	0	0.0%
\$2,000 or more	0	0.0%
Median Rent	\$711	
No Rent Paid	22	

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Table 6.10 Gross Rent as % Household Income (2017)

Gross Rent as Percentage of Household Income Occupied Units Paying Rent - Adel, Iowa (2017)		
	Count	Share
Occupied Units Paying Rent	343	100.0%
Less than 15%	33	9.6%
15% to 19.9%	45	13.1%
20% to 24.9%	13	3.8%
25% to 29.9%	78	22.7%
30% to 34.9%	43	12.5%
35% or more	131	38.2%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



## HOUSING DISTRIBUTION IN ADEL

Housing in Adel can be divided into several categories that have a distinct geographic distribution: age and assessed values. Figures 6.2 and 6.3 show the geographic distribution by year built and assessed value for 2019.

### Assessed Value

Figure 6.2 shows the distribution of assessed housing values for Adel as of 2019 tax assessor data. Homes were categorized into the following categories:

- \$100,000 or less
- \$100,001 - \$175,000
- \$175,001 - \$250,000
- \$250,001 - \$400,000
- \$400,001 - \$1,100,000

There is a clear concentration of lower assessed value homes in the central core part of Adel clustered around the downtown. While there is a row of lower valued homes south of Greene Street / downtown Adel, this area is predominantly composed of higher assessed value homes. Another area with a cluster of higher value single-family homes is north and south of Highway 6 east of downtown/central Adel.

### Year Built

Figure 6.3 shows the distribution of houses by year built for Adel. Homes were categorized into the following categories:

- 1865 - 1915
- 1916 - 1940
- 1941 - 1970
- 1971 - 2000
- 2001 - 2018

The distribution of homes by year built closely follows the pattern created by the assessed value in Adel. The older core of Adel has a much denser concentration of older homes compared to areas south of downtown or along Highway 6.



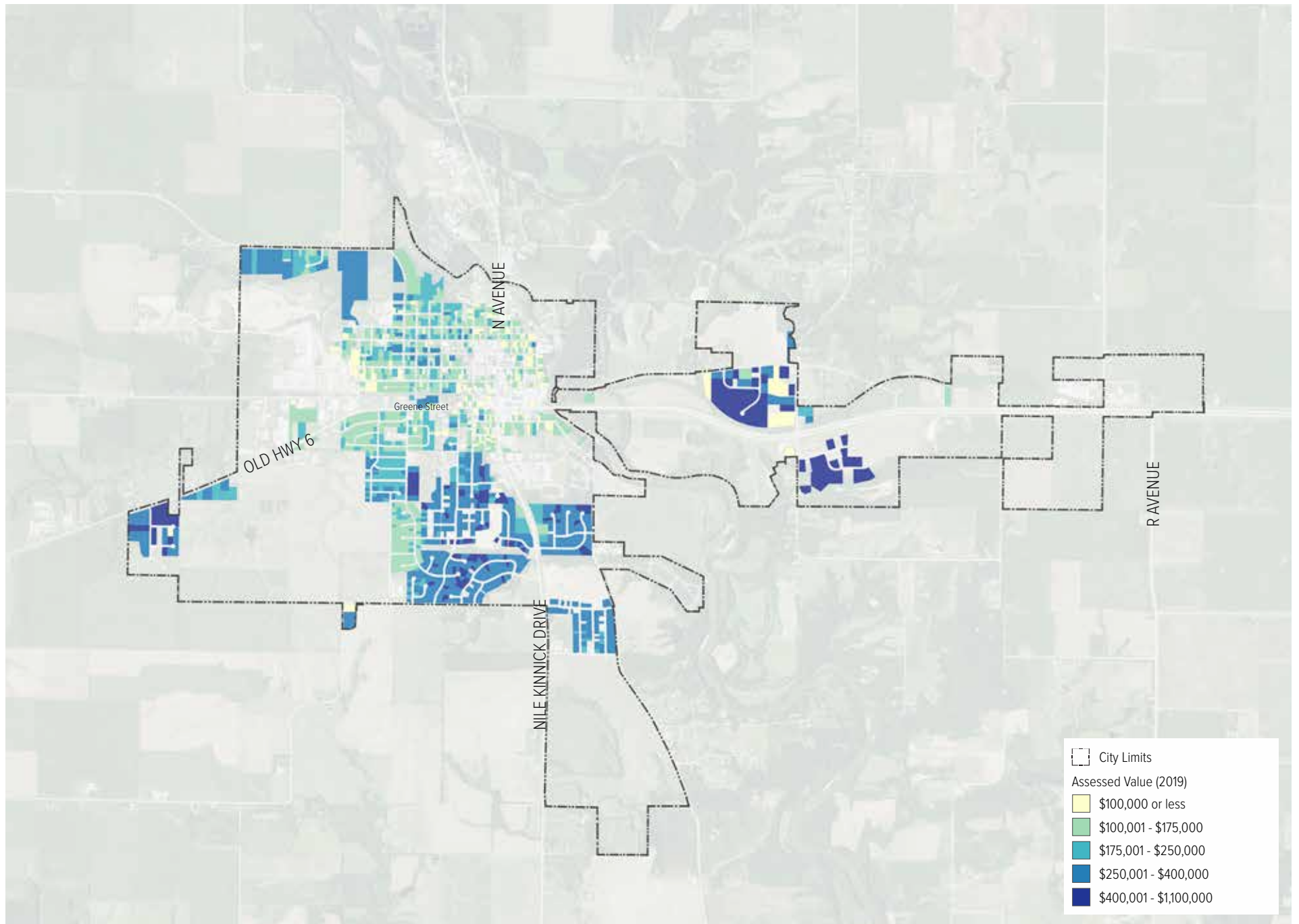


Figure 6.2 Housing by Assessed Value (2019)

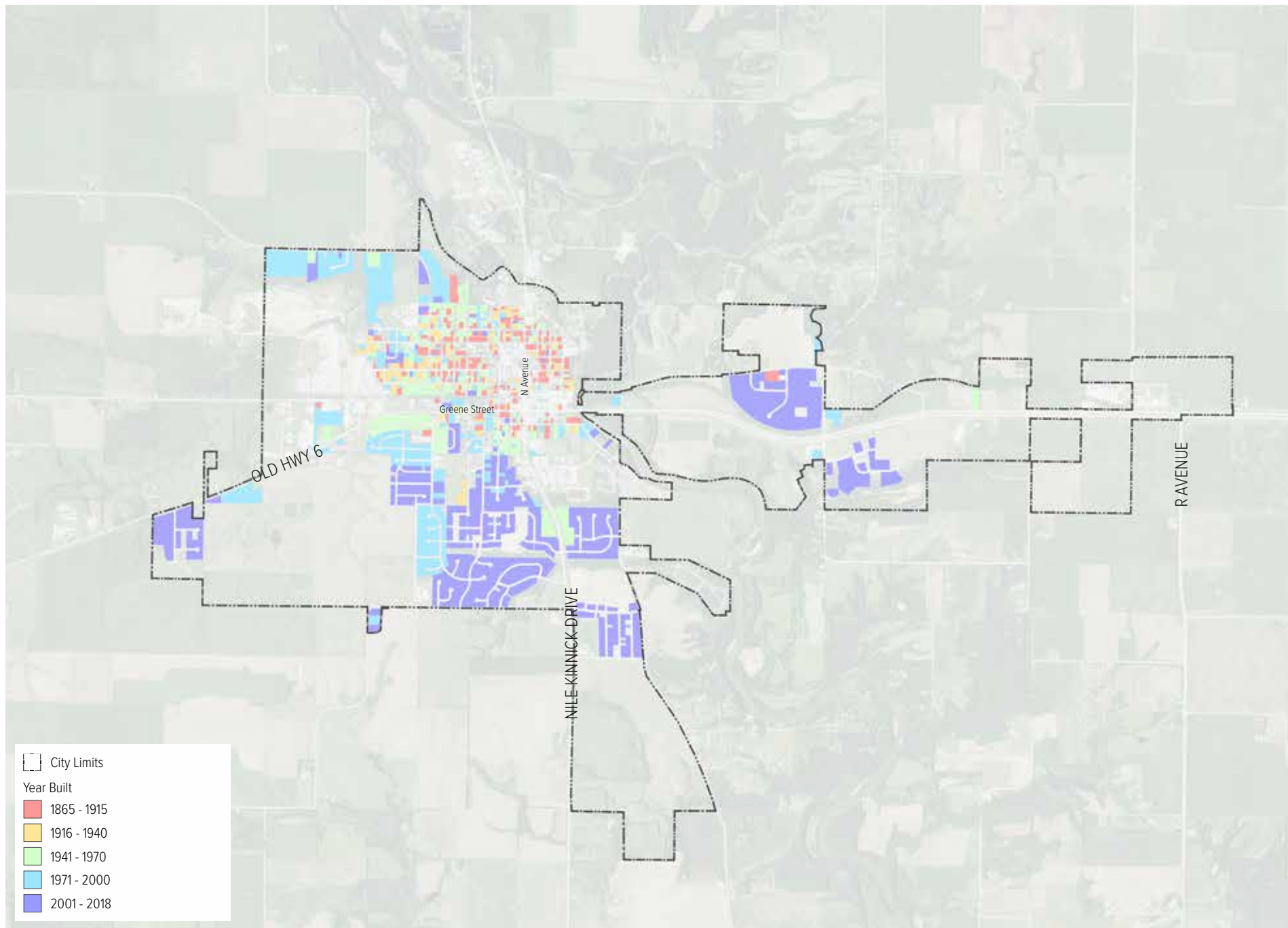


Figure 6.3 Housing by Year Built (2019)



Figure 6.4 Community Survey Question 7 Response

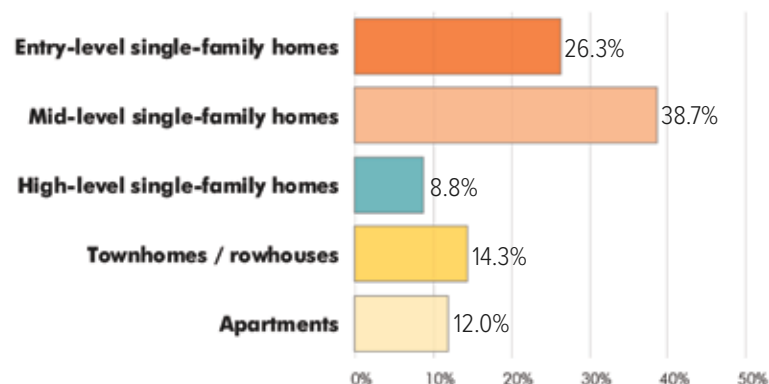
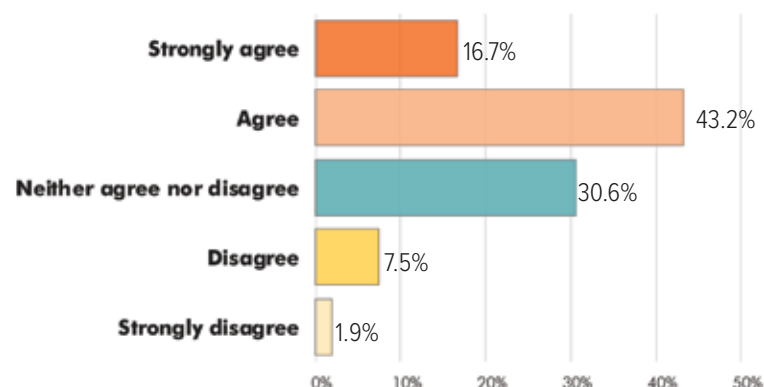
**What type of housing is most needed in Adel?**

Figure 6.5 Community Survey Question 10 Response

**For the following statement, please indicate your level of agreement.**

**“The City of Adel needs more senior-focused housing options.”**

**PUBLIC INPUT ON HOUSING**

Housing was brought up frequently in public engagement discussions in the Envision Adel 2040 comprehensive plan update.

**Public Workshop**

For the priority ranking exercise at the public meeting, the housing types or programs with the most priority rankings were:

- Mid-level single-family homes
- Townhomes or rowhouses
- Entry-level single-family homes

When asked if residents felt happy with the housing choices available in Adel, most respondents feel somewhere between happy and not happy with a slightly happy with trend. The average out of ten was 6.6 / 10.

For the visual preference exercise housing category, people indicated they liked townhomes and entry and mid-level single-family homes. They disliked the apartment buildings and high-level home images.

**Community Survey**

There were several questions on the community survey about housing issues in Adel. When asked what changes would improve the quality of life in Adel the community survey, property maintenance received 25.94% of all responses and increase diversity of housing types received 12.22%. While property maintenance cannot be conclusively linked to housing, anecdotal evidence from stakeholder interviews suggest the connection.

When asked what type of housing is most needed, the two main responses were mid-level single-family homes (38.7%) and entry-level single-family homes (26.29%). A series of questions asked respondents to select how much they agree with statements regarding housing on a scale from strongly agree to strongly disagree.

When asked if, “The City of Adel needs more affordable multi-family housing such as apartments” There was a mixed response. Roughly 22% of people listed Agree and another 22% selected Disagree. Nearly 30% indicated they neither agreed nor disagreed. Only 7% said they strongly agreed that Adel needed more apartments while 19.21% indicated they strongly disagreed.

## Public Input on Housing

When asked if, “The City of Adel needs more affordable entry-level, owner-occupied housing such as small single-family homes or townhomes/rowhouses” the responses were generally more favorable. Close to half of all respondents indicated they agreed with the statement. Another 25% said they neither agree nor disagreed. Only 30% of respondents did not agree with the statement.

When asked about the need for more senior-focused housing options there was again agreement from survey respondents. Nearly 60% of respondents believe Adel needs more senior-focused housing. While approximately 30% of respondents neither agreed nor disagreed only 9% of respondents expressed disagreement.

When asked what Adel needs more of, among a diverse set of answers, 12.7% of respondents selected “More broad range of housing choices” as one of their responses.

Another question asked respondents to rank five general priorities: Growth & Development, Downtown Revitalization / Historic Preservation, Housing & Quality of Life, Business Attraction / Retention, and Environmental Protection / Land Preservation. Housing was the second lowest priority per the survey rankings, however, there was not a huge difference between priority rankings and housing was close to the 2nd and 3rd priority ranking.

## Tax Abatement

In general, there was strong feelings about the residential tax abatement program in Adel. Survey respondents criticized the tax abatement program and the effect they believe it has had on their community and taxes. Others said the tax abatement program was the main reason they lived in Adel. Some mentioned that the us versus them reaction to those living in tax abatement homes has impacted their sense of community in Adel. People in the development community interviewed as part of the stakeholder interviews cited the tax abatement program as one of the main reasons they built in Adel at this time. Despite mixed feelings on the program, few can deny the major impact it has on the community.

Figure 6.6 Community Survey Question 8 Response

**For the following statement, please indicate your level of agreement.**  
**“The City of Adel needs more affordable multi-family housing such as apartments”**

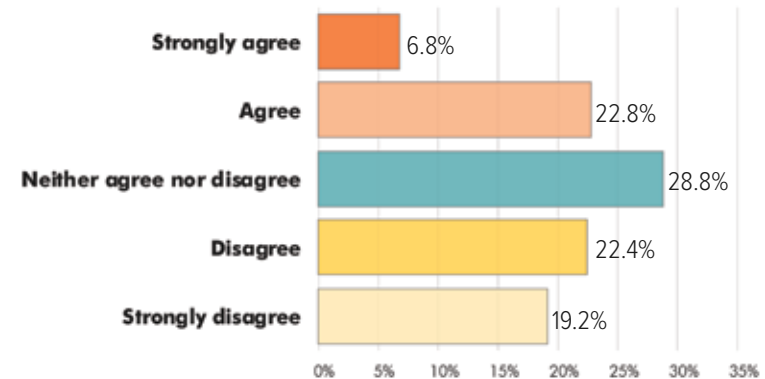
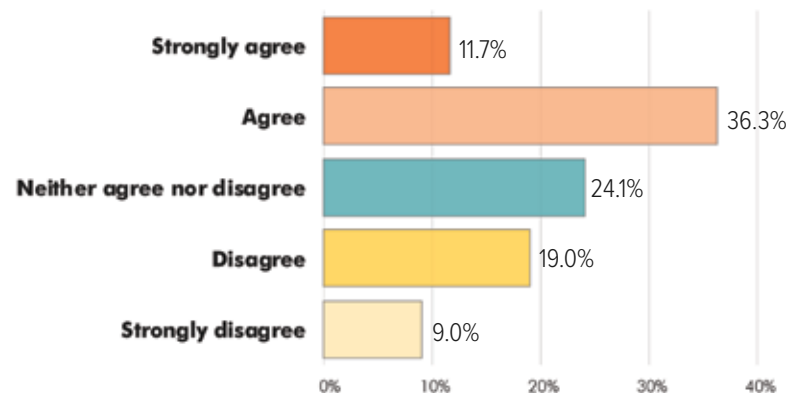


Figure 6.7 Community Survey Question 9 Response

**For the following statement, please indicate your level of agreement.**  
**“The City of Adel needs more affordable entry-level, owner-occupied housing such as small single-family family homes or townhomes / rowhouses.”**



## KEY CONSIDERATIONS

### **Neighborhood Connectivity**

Adel has a significant divide between its new and older neighborhoods. Physically, most newer homes have been built south of Greene Street to the west of Highway 169 whereas the older housing stock is north of Greene Street and west of the town square. Given the difference in average assessed values for these neighborhoods, it is important to make sure there is a cohesive connection and continuity between the older and newer neighborhoods. This can make the transition between neighborhoods less jarring or noticeable and help avoid the perception of us versus them within a community. This can be accomplished through street and sidewalk/trail connections, consistent amenities or streetscape standards throughout the new and older sections of the community and by keeping new residential developments adjacent to existing residential areas.

### **Housing Rehabilitation Program**

The typical amenities and features found in a newer home are often different than those found in homes built near the turn of the 20th century or mid-century residences. Homes today often come standard with two-car garages, open floor plans, larger kitchens and master bathrooms. In addition to these often-missing amenities, older homes can be accompanied with heating/cooling efficiency issues, structural problems and tend to be smaller than modern homes. These older homes, however, often have an inherent charm and are generally more affordable as starter homes or affordable housing options. This issue can be remedied through actions and programs such as sweat equity by homeowners or a housing rehabilitation program to offer financial assistance and incentives to renovate and update older homes. Adel should consider creating a homeowner's improvement revolving loan fund to assist residents with older homes in financing certain home improvements. This type of program could help ensure Adel's older neighborhoods remain healthy and viable options for new residents and first-time homebuyers.

### **Residential Development Locations**

An important factor in integrating new residential development will be the location of new subdivisions. Ideally, new residential subdivisions will be connected to existing residential areas by being adjacent to or connected through sidewalks or trails. By promoting residential development adjacent to existing housing areas, growth will feel more organic and connected to the Adel community. Leap frog residential development may struggle to feel part of the Adel community and may not be within walking distance of existing amenities such as parks or the downtown square.

### **Senior Housing**

Despite gains in younger-age population and a growing school district, Adel still has a large segment of aging Baby Boomers who will be entering retirement age now and in the planning horizon year. Adel should consider working to attract senior housing opportunities that allow older residents to "age in place." Ideally, these senior housing developments would provide options at various price points. Potential targets for these developments would be existing residents that want to stay in Adel throughout their retirement or retirees from other areas that may have children or grandchildren living in the greater Des Moines metro. Some retirees may desire to be close to their children/grandchildren but still live in a small-town, more rural environment.





# LAND USE

## *LAND USE PLAN & STRATEGY*



## KEY LAND USE FEATURES IN ADEL

There are some key features that define the existing land use pattern in Adel.

### **Single-Family Homes**

The existing land use pattern in Adel can be defined by the dominant role single-family housing plays in the layout and feel of the community. Adel's housing stock includes a mixture of very old (1930 or older) and very new homes (2015 or newer). The older homes are generally located in the residential neighborhoods surrounding the downtown along Grove, Rapids, Court, Main, and Prairie Streets. The newer homes are mostly found in new subdivisions south of downtown / Greene Street on either side of Highway 169. Single-family homes account for a large majority of Adel's existing land use composition.

### **Highway 6 and Highway 169**

Adel is also defined by the location of its two major thoroughfares, Highway 169 and Highway 6. These two historic highways act as the main entryways into the community and their intersection marks the beginning of historic downtown Adel. Highway 169, also known as Nile Kinnick Drive, runs north-south through Adel and is a key commercial corridor for city. It is the closest and main connection to Interstate 80 and much of the Des Moines metro area. Highway 169 provides access to Adel's major grocery store (Fareway), high school, and the Kinnick-Feller Riverside Park. Highway 6 runs east-west and is also known as Greene Street as it runs through the community. Highway 6 connects Adel to the nearby community of Waukee and has a scattered mix of commercial, residential and industrial land uses along its stretch. Highway 6 also defines much of the route of the Raccoon River Valley Trail, a popular regional trail that is a major draw of visitors to and through Adel.

### **Downtown Core**

Adel is fortunate to have a beautiful historic downtown square with the Dallas County courthouse serving as a major icon. Downtown Adel is a key cultural, civic and commercial hub in the community. With its charming brick streets and historic façade and character, downtown Adel is a special amenity for Adel to utilize and highlight as it attracts residents and growth. While many feel downtown Adel could be improved, there was also near unanimous belief that the downtown was an important asset for Adel to enhance the quality of life in the community.

### **Industrial Land**

A major historic industry in Adel is brick making which has been taking place in Adel for more than 100 years. Ownership and location of the brick plant has changed over time, but the current location is along the railroad tracks near Main Street in southwest Adel. Today, United Brick and Tile Company (a division of Sioux City Brick) employs around 100 people and produces approximately 92 million bricks per year. Other industrial areas in Adel include along Highway 169 north of the downtown. A growing industrial area of the community is on the eastern edge of Adel along Highway 6. This industrial land provides an important employment and tax base for Adel.

### **Civic Institutions**

Adel is the county seat for Dallas County and therefore has many downtown buildings and parking lot spaces dedicated to county government and employees. While these civic offices provide a stable source of employment for Adel, the land is also tax exempt and is only activated during traditional workday times (9 A.M.-5 P.M.). Ideally, the downtown would house businesses and tenants with commercial and entertainment options extending beyond the workday through options like restaurants and shopping. The Dallas County Courthouse, however, is one of these civic institutions that is an anchor for the community and helps create a sense of place in downtown Adel.









### **Raccoon River**

The North Raccoon River runs through the eastern edge of Adel which provides both beauty and environmental benefits and challenges for Adel. Generally, more intense development in Adel has remained out of the floodplain with some exceptions near downtown Adel. Much of the floodplain and areas along the North Raccoon River are city or county-owned, used for parks and recreation, a cemetery and a few areas of industrial and residential. The large amount of floodplain within the planning boundary helps ensure a built-in amount of open space, recreation space and tree cover within Adel. The area around the North Raccoon River contains access to water and more significant tree cover, all of which creates an attractive and scenic landscape unavailable to many other communities in the Des Moines metro area.





Table 7.1 Existing Land Use Composition - Adel, Iowa (2019)

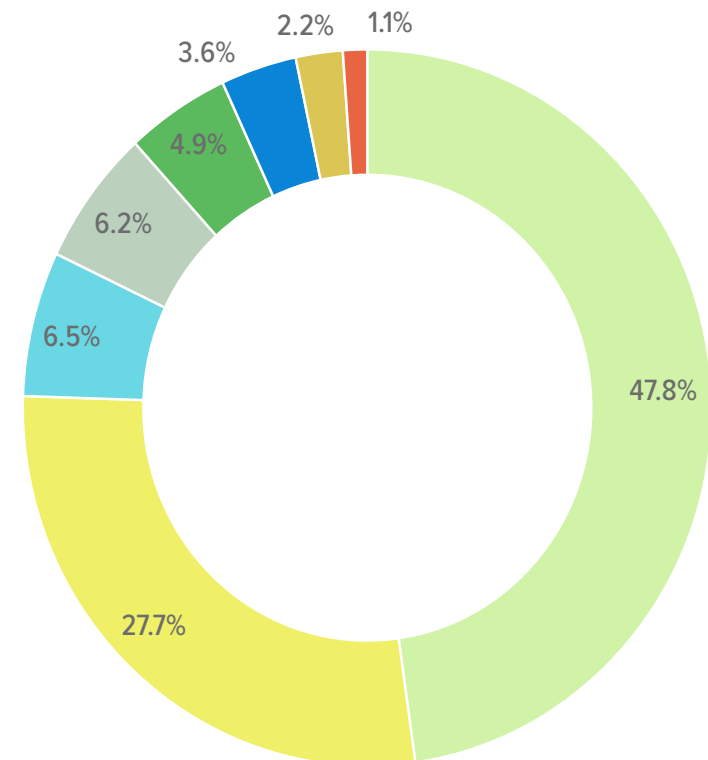
Existing Land Use Composition - Adel, Iowa (2019)		
Existing Land Use	Count	Share
 Agriculture / Undeveloped	1,428.0	47.8%
 Single-Family Residential	829.4	27.7%
 Public / Semi-Public	195.7	6.5%
 Industrial	184.0	6.2%
 Parks and Recreation	145.8	4.9%
 Office	106.4	3.6%
 Multi-Family Residential	65.9	2.2%
 Commercial	34.0	1.1%
Source: Planner's Estimating Guide, Nelson 2004		

## EXISTING LAND USE IN ADEL

The existing land use composition of Adel was calculated using information received from the City of Adel and the Dallas County tax assessor. Table 7.1 and Figure 7.1 show the land use composition breakdown for Adel in 2019. There is a significant amount of land in the Adel city limits that remains undeveloped or agricultural (47.8%). However, given the pace of development in Adel this land may be in flux. Low Density Residential is another defining land use category in the city accounting for approximately 27.7% of all land use. There is also a significant amount of Public / Semi-Public land in the community with around 6.5%. Approximately 6.2% of Adel is industrial land.

A map of the existing land use in Adel is shown on the name page in Figure 7.2.

Figure 7.1 Existing Land Use Composition - Adel, Iowa (2019)



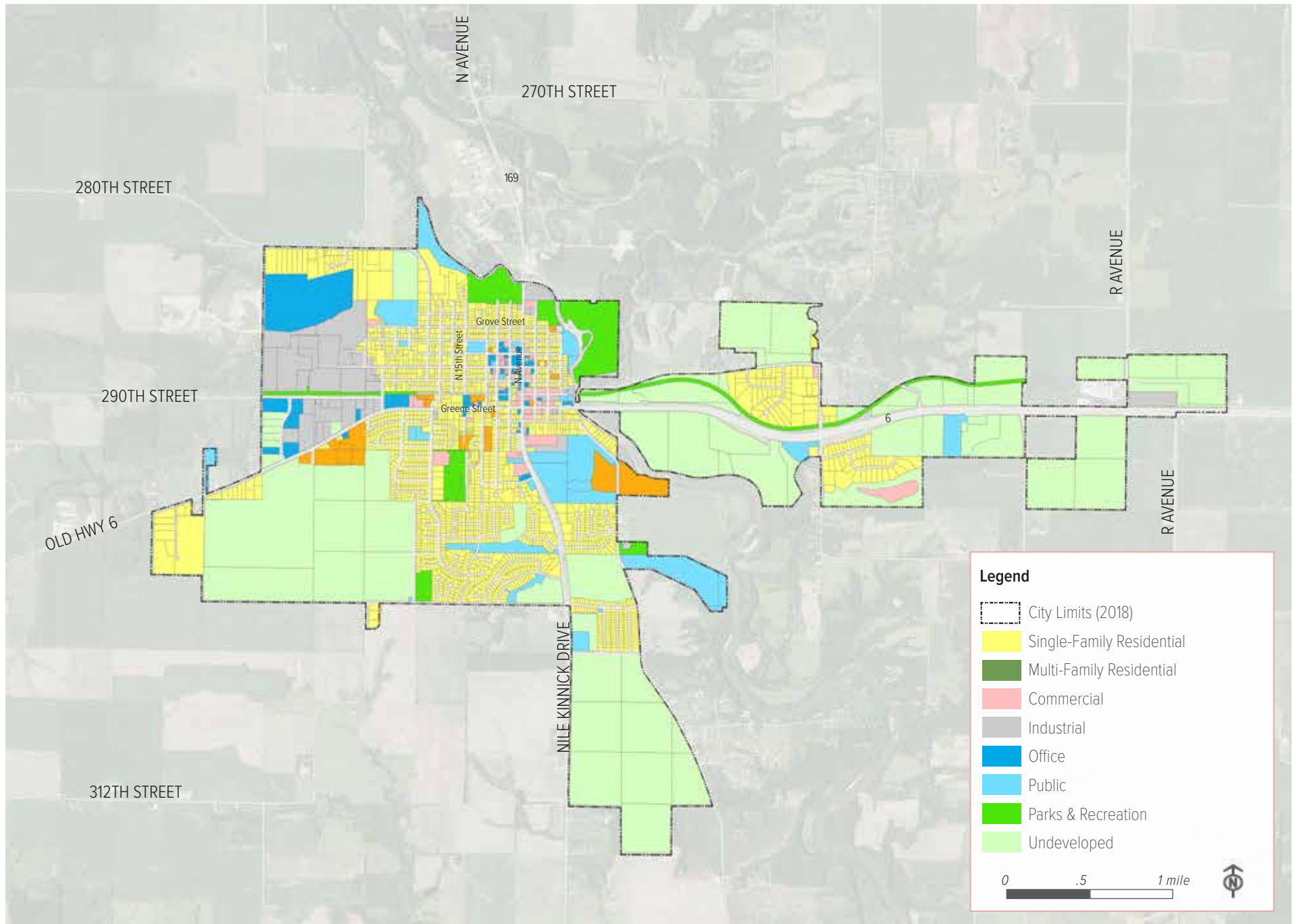


Figure 7.2 Existing Land Use, Adel (2019)

## FUTURE LAND USE

A new set of land use categories have been created for the *Envision Adel 2040* comprehensive plan's land use plan. The new future land use categories provide ample opportunities for both growth and preservation in the Adel community. The categories provide several options for residential growth that appeal to residents of all ages, income levels and stages of life. There are several land use categories meant to attract commercial, office and industrial growth within the community along key corridors in Adel. There are also several land use categories that protect stream corridors and floodplain, agricultural land on the far edges of the community and existing rural subdivisions.

The future land use categories are:

- Agriculture
- Rural Residential
- Low Density Residential
- Medium Density Residential
- Higher Density Residential
- Open Space & Stream Corridors
- Parks & Recreation
- Public, Semi-Public & Institutional
- Historic Downtown
- Neighborhood Commercial
- Community Commercial
- Mixed Use
- Office
- Industrial Business Park
- Industrial

## AGRICULTURE

The Agriculture land use category is for land that should remain agricultural or other very low intensity uses. Adel is surrounded by scenic and productive agricultural land that should be protected from development when better alternatives exist for residential or commercial growth. This land use category helps to direct growth to those areas in the planning boundary most suitable for development and preserve wide swaths of land as agricultural and open space. Residential development in the agriculture land use category should be limited to no more than one dwelling unit per 40 acres.





## RURAL RESIDENTIAL

The Rural Residential land use category includes single-family homes, usually on large lots, located in the more agricultural and natural areas of Adel. These lots may or may not be part of an existing agricultural enterprise and are typically very low density at 1 dwelling unit per 5 acres. The Rural Residential land use category also provides land to promote non-traditional housing developments such as agri-hoods and cluster subdivisions.



## LOW DENSITY RESIDENTIAL

The Low Density Residential land use category is designed for areas with traditional lower density single-family with lot sizes ranging from 1 to 5 dwelling units per acre. This land use category will be predominantly single-family detached homes with some duplexes and single-family homes with accessory dwelling units. The district also allows for small lot and “tiny” homes to try and increase flexibility and affordability within Adel’s housing stock. Development within the category may also include religious, educational, institutional uses, and public and private recreational areas.



## MEDIUM DENSITY RESIDENTIAL

The Medium Density Residential land use category is designed for townhome, rowhouses, or cottage home developments as well as single-family homes with accessory dwelling units. There will be a mixture of housing types including single-family detached dwellings, townhomes, rowhouses, and duplexes, with an overall density of between 5 to 12 dwelling units /acre. Development within the category may also include religious, educational, institutional, and public and private recreational areas. This land use can serve as a transitional use between low density residential and more intense uses such as commercial or industrial. The medium density residential land use will help provide more diverse housing choices for Adel residents.



## HIGH DENSITY RESIDENTIAL

The High Density Residential land use category is set aside for areas with densities of 12 or more dwelling units per acre. The category should mainly be apartments or condominiums with some townhomes/rowhouses when appropriate. This housing is meant to provide alternatives to residents young and old as well as serve as transitional housing for new residents. Development within the category may also include religious, educational, institutional uses, manufactured housing developments, child day care centers, and public and private recreational areas.





## OPEN SPACE & STREAM CORRIDORS

Open Space & Stream Corridor are those areas within the 100-year floodplain and within a 100-foot buffer along Type 1 - Perennial Streams that are not already set aside as park land or floodplain. These areas are environmentally sensitive and should be protected from most types of development to protect the ecological function of the land and to avoid property damage locally and downstream from increased runoff if the site were to develop.



## PARKS & RECREATION

The Parks & Recreation land use category is set aside for public, private and semi-private recreational land such as parks, trails, golf courses, greenways, and recreation fields. Ownership may be private but is often public and available for use by all residents and visitors.





## PUBLIC, SEMI-PUBLIC & INSTITUTIONAL

The Public, Semi Public & Institutional land use category includes publicly owned land such as city hall, the library, and police/fire facilities. It also includes semi-public land such as cemeteries and the Dallas County Court House. Institutional facilities such as schools and universities land also fall into this category.



## HISTORIC DOWNTOWN

The Historic Downtown land use category covers the historic and commercial core of downtown Adel. The land use category is centered around the historic square and has been extended to include the commercial and mixed-use uses down to Greene Street as well as the Raccoon River Valley Trail through to the river. The downtown core should consist of multi-story buildings and be exclusively first-floor retail or restaurant with limited amount of other commercial or office uses to encourage all-day activity. The second and upper floors of any building should be residential or office. Façade and streetscape improvements should be focused on this core area to enhance the pedestrian experience.



## NEIGHBORHOOD COMMERCIAL

The Neighborhood Commercial category includes small retail and office uses intended to serve the daily retail needs of residents. Typical land uses include daycares, assisted living facilities, small office, convenience stores and other neighborhood-serving uses. The site and building design within this category should be of a suitable scale for the adjacent neighborhood and should not cause unnecessary interruption to the nearby residential areas through noise, light or vehicular traffic. Sites are generally 1 to 10 acres and should accommodate pedestrian and bicycle circulation.



## COMMUNITY COMMERCIAL

The Community Commercial land use category is designed for community-serving retail, entertainment and commercial areas along Highway 6 and Highway 169. These retail and entertainment uses are intended to serve the entire Adel community as well as attract users from areas outside of Adel. These locations should contain multiple access points and consist of larger box stores and multi-tenant shopping centers.





## MIXED USE

The Mixed Use land use category is a special land use created for mixed retail, entertainment and residential development proposed on the west side of Highway 169 south of the existing city boundary. The land use and proposed location are designed to include areas to be developed at a higher more urban density with multi-story buildings including a combination of residential, retail and office uses. Retail and office uses are generally located on the first floor (street-level) with multi-family residential units located on the upper floors.



## OFFICE

The Office land use category is set aside for areas suitable for small or large-scale office developments and is designed to promote additional employment opportunities in Adel. The land use category can include a combination of professional office and medical uses as well as corporate campuses consisting of single or multi-tenant buildings that are 1 or more stories tall. A limited set of support retail such as coffee shops or dry cleaners may also be included within the land use category.





# LAND USE

## BUSINESS PARK

The Business Park category is designed for business park office complexes and very light industrial uses. Business park uses include larger office complexes or corporate campuses. Light industrial uses include warehouse and distribution facilities and activities such as testing, fabrication, manufacturing, assembly or processing of materials that are in refined form and do not require transformation that creates smoke, odor, dust vibrations, soot or other noxious elements. All activities are contained within the buildings with no outdoor storage. Limited support retail or commercial activities would be allowed including gas stations, convenience stores, or coffee shops.


















## INDUSTRIAL

The Industrial land use category is set aside for more intense industrial uses such as the large-scale assembly of goods and material processing. These uses may include outdoor storage as well as all uses allowed in the Industrial Business Park category. Generally, industrial uses should be located away from residential areas. In Adel, the exception of this is the United Brick and Tiles brick manufacturing plant that is a historic Adel industry and has existing residential neighbors.



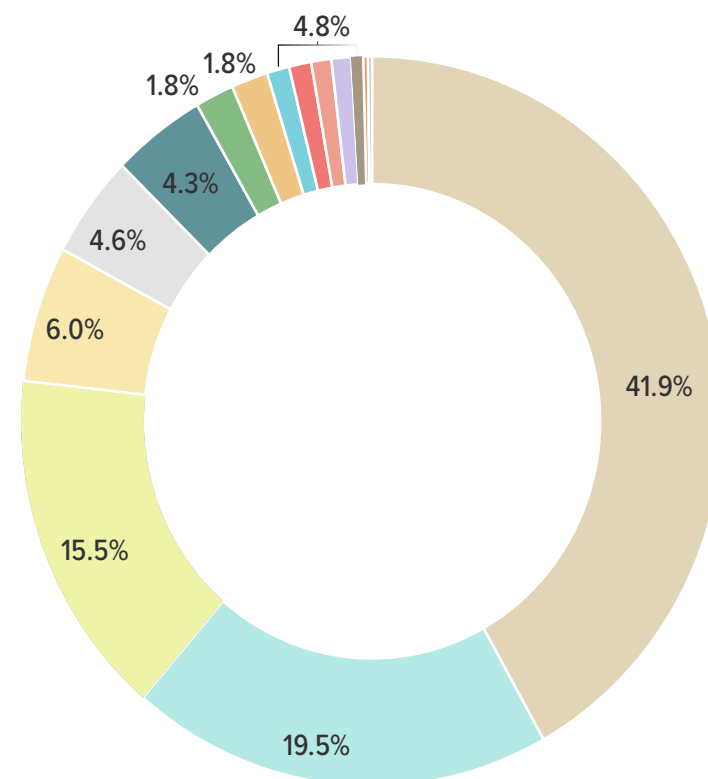
Table 7.2 Future Land Use Composition

Future Land Use Composition - Adel, Iowa			
Future Land Use	Count	Share	
 Agriculture	9,403.3	41.9%	
 Open Space & Stream Corridor	4,369.0	19.5%	
 Low Density Residential	3,469.9	15.5%	
 Rural Residential	1,355.8	6.0%	
 Industrial	1,023.8	4.6%	
 Business Park	971.2	4.3%	
 Parks & Recreation	401.2	1.8%	
 Medium Density Residential	401.0	1.8%	
 Public, Semi-Public & Institutional	232.4	1.0%	
 Community Commercial	207.1	0.9%	
 Neighborhood Commercial	208.6	0.9%	
 Mixed Use	202.4	0.9%	
 High Density Residential	123.7	0.6%	
 Office	48.4	0.2%	
 Historic Downtown	40.6	0.2%	
TOTAL	22,458.4	100.0%	

## FUTURE LAND USE

The future land use composition breakdown is shown in Table 7.2 and Figure 7.3. The dominant land use category for the planning boundary remains Agriculture with nearly 42% of land. The second most prominent future land use is the Open Space & Stream Corridor land use that preserves important ecological features such as the floodplain and stream corridors. The next two major categories are Low Density and Rural Residential, keeping in line with the rural and suburban feel to Adel. Industrial and Business Park come next with a combined nearly 9% of all future land uses, an opportunity for continued employment land in Adel. There is 1.8% of land set aside for Medium Density Residential and 0.6% for High Density Residential. Approximately 1.9% of land is meant for commercial uses. Overall, this plan provides area for growth and expansion without losing the look and feel of Adel today. Figure 9.4 shows the future land use map.

Figure 7.3 Future Land Use Composition



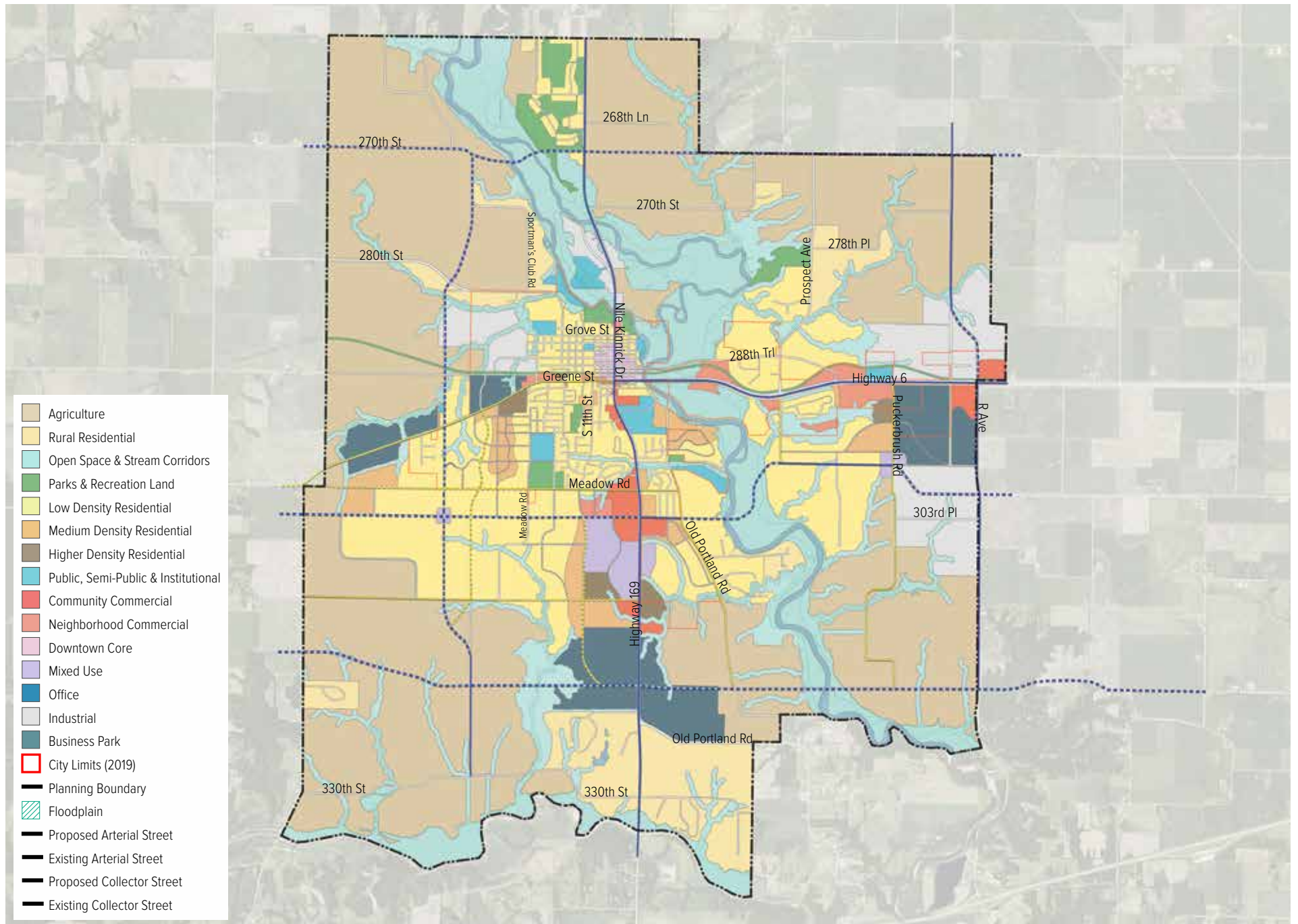


Figure 7.4 Future Land Use Plan



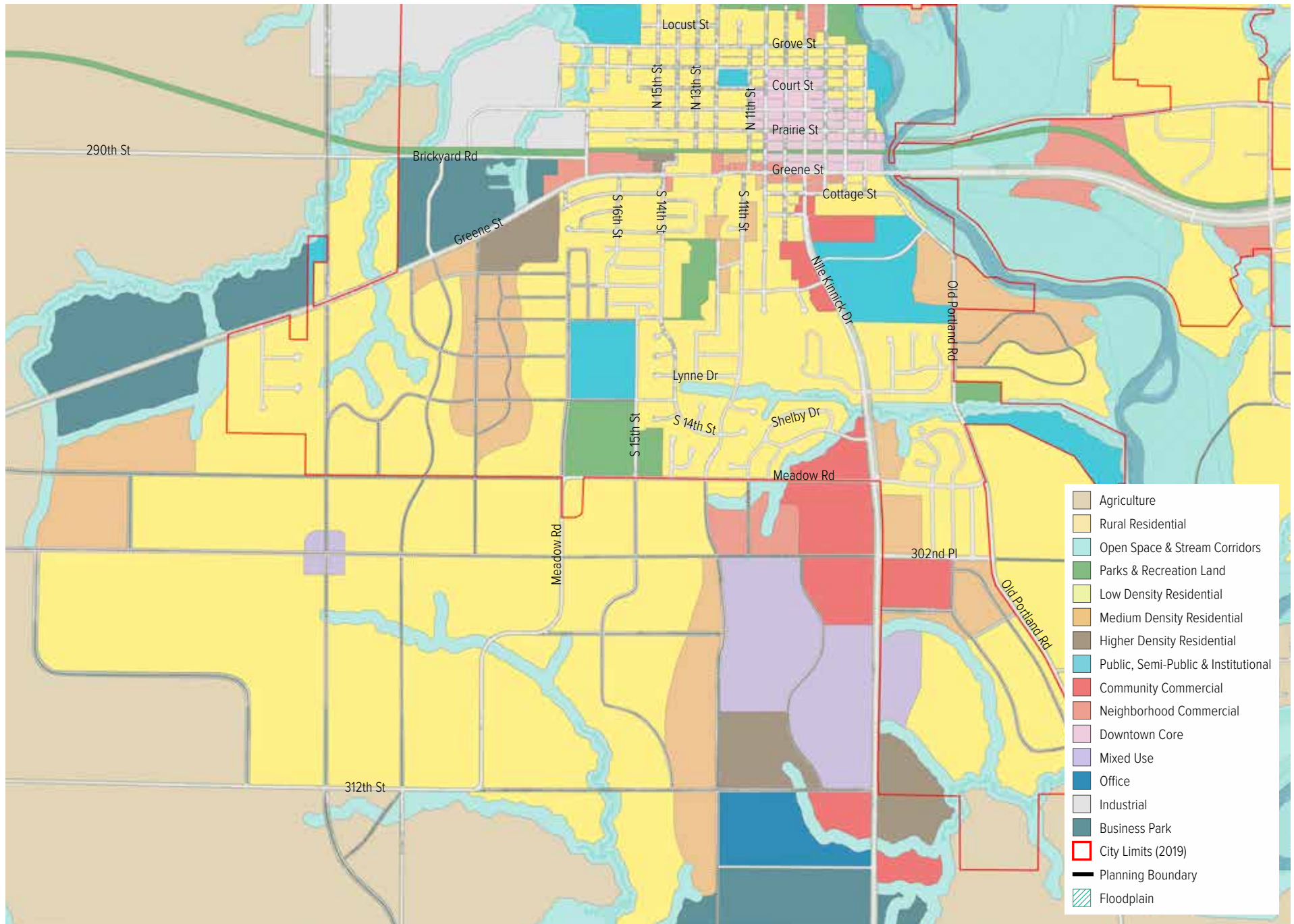


Figure 7.5 Central Adel - Land Use Plan Focus

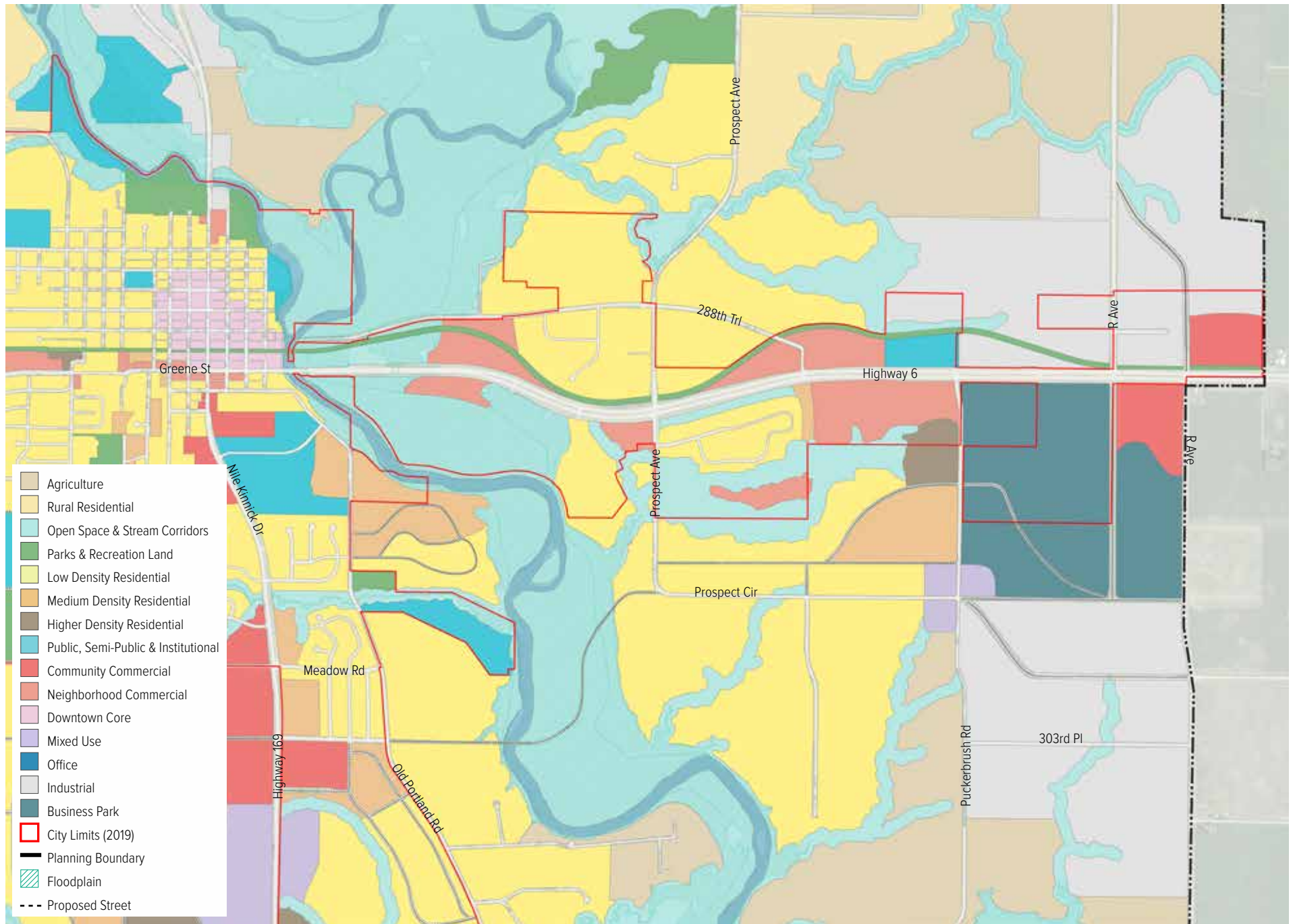
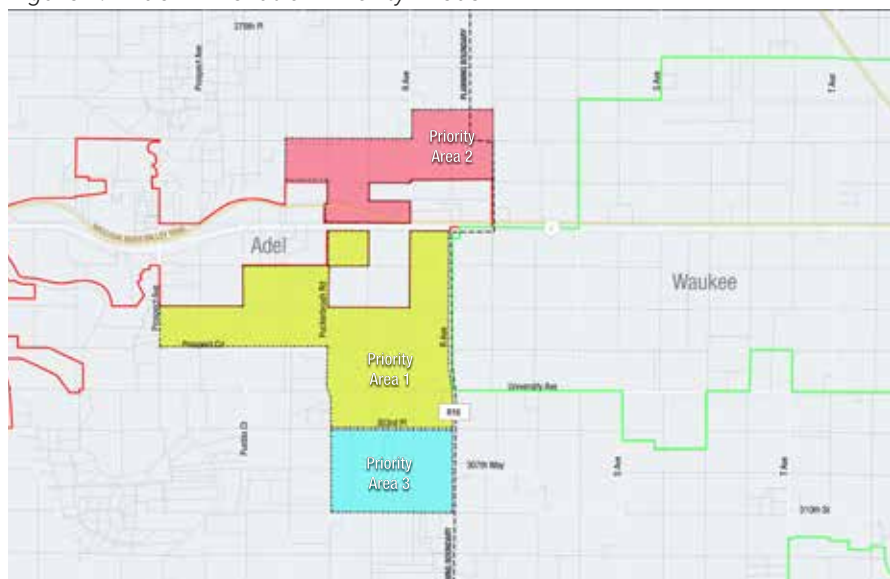


Figure 7.6 East Adel / Highway 6 - Land Use Plan Focus





Figure 7.7 Adel Annexation Priority Areas



## ANNEXATION PRIORITIES

Due to expected growth rates and upcoming developments on the edge of Adel's agreed planning boundary, annexation priorities have been identified. The following policies should be considered when evaluating matters related to annexing territory within the City of Adel. These issues were originally discussed during Adel's 2018 Strategic Planning exercise.

### **Annexation Types**

The City should consider requests for annexations that are either voluntary (all property consents to annexation) or voluntary with non-consenters (a minimum 80% of the annexation area agrees to annex with up to 20% of the annexation area not requesting or agreeing to be annexed). Involuntary annexations should not be pursued by the City.

### **Annexation Incentives**

In general incentives for annexation should not be given. However, the City should consider allowing for the gradual imposition of city taxes against the annexed property up to the maximum schedule as allow under the Code of Iowa (368.11(3)(m)). This transitional tax abatement should only be given to existing developed property that consents or requests annexation. Tax abatement under this program should not be given to undeveloped property (agricultural or vacant land) or land that does not consent to annexation. Other economic development incentives the City may wish to consider for a property should not be tied to annexation and should instead be tied to the specific development being proposed on the property.

### **Annexation Boundary Agreements**

The City should pursue agreements with neighboring cities to establish annexation boundary lines from which neither city will cross with an annexation. The desired annexation boundary lines should reflect the planning boundary as identified on the City's adopted Future Land Use Map.

### **City Pursued Annexations**

City staff should pursue the annexation of land along Hwy 6 east to the planning boundary by contacting and meeting with property owners to determine their level of interest and long-term plans for their property. The annexation area is divided into three different priority zones (see Figure 7.8).



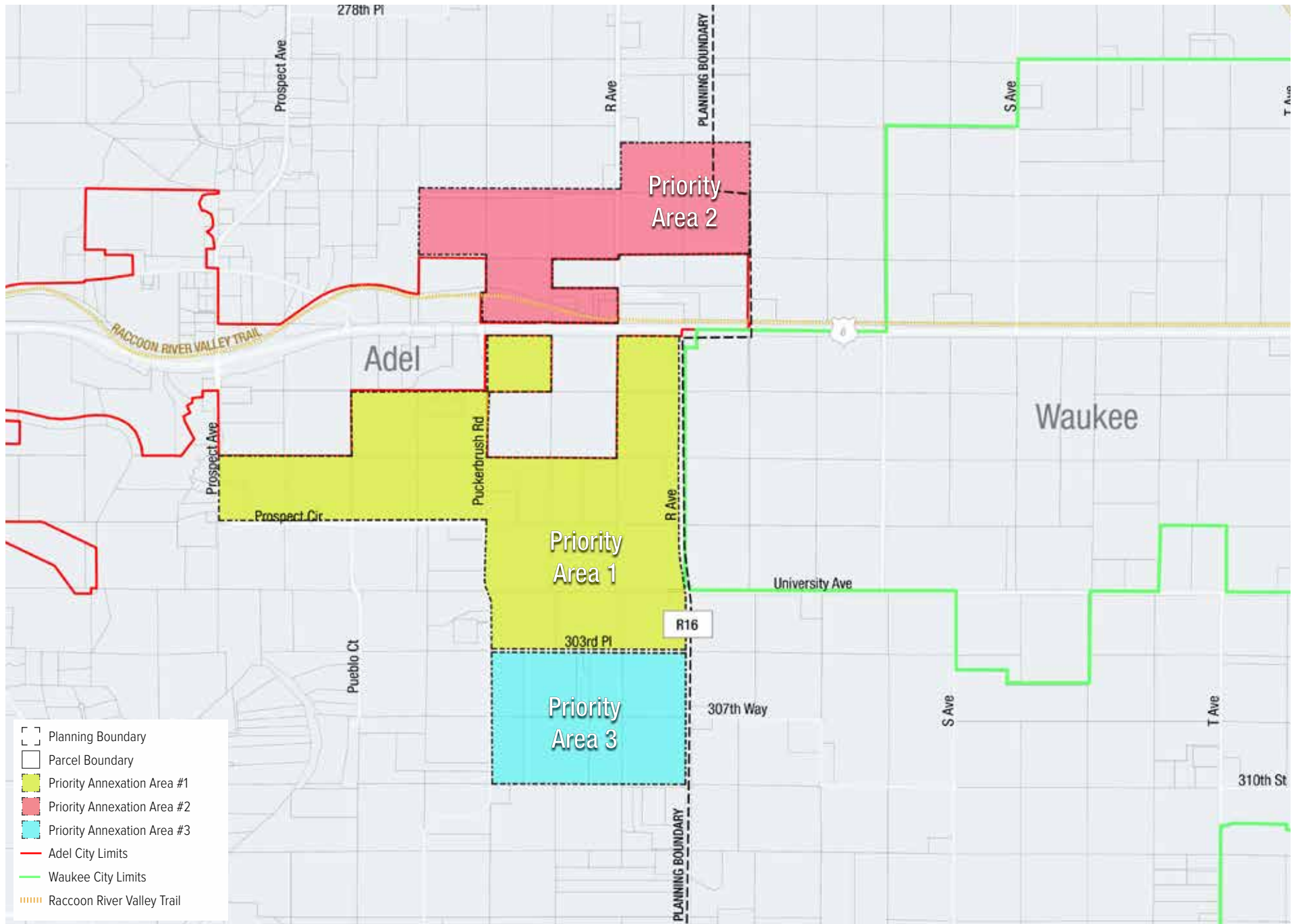


Figure 7.8 Adel Annexation Priority Areas

## 2-MILE SUBDIVISION PLAT REVIEW POLICY

The following policies should be considered when reviewing subdivision plats within 2-miles of the corporate limits of the City of Adel.

### ***Subdivision Plat Review***

All subdivision plats that are within 2-miles of the corporate limits of the City and within the City's planning boundary as identified on the Future Land Use Map should be reviewed by the City and subject to the City's subdivision regulations including design standards and parkland dedication requirements. Plats-of-Survey and lot splits that create a total of 2 or fewer new parcels of record within the 2-mile review area can be deferred to Dallas County provided they do not negatively impact the future development of the area or inhibit the extension or expansion of any highways or roadways. Otherwise, plats-of-survey and lot splits that may impact future development of an area should be reviewed by the City.

### ***Sanitary Sewer Service***

No subdivision within 2-miles of the corporate limits of the City and within the City's planning boundary should be approved unless provisions for sewer service have been made. If within an area that is planned for City sanitary sewer service, the subdivider shall construct a dry sanitary sewer system with an agreement that the subdivision will connect to the City's system when the area is annexed into the City and City sanitary sewer is made available. If the area is planned for City sanitary sewer service but that service is not likely to occur within the next 20 years, then the subdivider shall devise a plan, reserve easements, and establish agreements necessary for the future extension and connection of the subdivision to the City sanitary sewer system when it becomes available. If the area is never likely to be served by City sanitary sewer, then an alternative sewerage system may be proposed by the subdivider.

City sanitary sewer service should not be provided to any property located outside the City corporate limits. The City Council may grant an exception for existing developed properties requesting city sewer to resolve a septic system issue provided that property executes an agreement to annex into the City when requested by the City.

### ***Paved Street Access***

No subdivision within 2-miles of the corporate limits of the City and within the City's planning boundary should be approved unless it has at least one connection to

a paved public street. The subdivider shall further be responsible to improve the subdivision's share of any adjoining unpaved roadways and dedicated the appropriate right-of-way. All streets within the subdivision, whether public or private, shall be paved to the City's design standards.

The City should consider updating the subdivision regulations to define and permit a paved, rural road standard for streets serving rural estate lots that are all greater than once acre in size.

### ***Land Use and Future Streets Plan Consistency***

No subdivision within 2-miles of the corporate limits of the City and within the City's planning boundary should be approved unless it is consistent with the land uses and ultimate streets system as identified for the property on the City's adopted Future Land Use Map.







# TRANSPORTATION & MOBILITY

*SYSTEM OVERVIEW &  
KEY CONSIDERATIONS*



## TRANSPORTATION & MOBILITY

Transportation generally refers to the system in which goods and people move through an area. Typically, transportation is often more associated with motorized transport methods such as cars, vans, trucks, transit, boats, rail or aviation. Within these transportation modes are different trip types and purposes - it may be personal travel, travel for work, freight or commercial enterprises, to name a few. Mobility refers more so to the ability to move freely and easily and is more often emphasizes non-motorized transport methods such as walking or biking. Streets, rail lines, sidewalks and trails, and airport facilities are all part of the transportation and mobility system of an area.

Like most communities, Adel's transportation system serves many roles: local roads and sidewalk travel to get people from their homes to nearby locations such as parks, downtown, the grocery store, school or work in Adel. There are also many people who commute out of town or commute into Adel for work that will mainly utilize a different transportation system (arterial and collector streets). Two highways run through Adel (Highway 6 and 169), serving as the main arterial roadways in and out of the community. A rail line used to run through Adel but has since been turned into a regional trail (Raccoon River Valley Trail), providing a local and regional transportation source. Adel is also served by a rural transit authority, HIRTA, offering on-call transit services to and from the Des Moines region. Adel is part of the Des Moines metropolitan area which is primarily served by the Des Moines International Airport with several other regional or small municipal airports located within the greater area.

This chapter reviews the existing street system and classifications. It describes and explains the reason behind a series of proposed new streets and street extensions. A review of the sidewalk and trail system in Adel is provided. Lastly, the public transportation, aviation and rails to trails history of Adel is reviewed.

## STREET CLASSIFICATION

Streets are generally categorized into a hierarchy or classification based on purpose, size and traffic levels. The three road types identified within Adel are arterial streets, collector streets and local streets. Each street hierarchy has been defined below.

### **Local Streets**

Local streets are those roads that provide access to properties bordering them. Residential properties are typically found along local streets, but they may also have other land uses such as commercial areas. The goal of local streets is typically to provide safe access to neighborhood services and facilities. Speed limits on local roads is usually 25 mph or less. In Adel, the standard right-of-way (ROW) width for a local street is sixty (60) feet with two (2) lanes.

### **Collector Streets**

Collector streets are low to moderate capacity streets that connect local streets to arterial roadways. While collector streets have more traffic than local ones, residential land uses can often be found along collector streets. The design of collector roads will vary significantly based on the urbanity of an area and the traffic levels. Speeds on collector streets are generally between 20 and 35 mph. In Adel, the standard ROW width for a collector street is seventy (70) feet with between 2 and 3 lanes.

### **Arterial Streets**

Major arterial streets are high-capacity roads whose primary purpose is to deliver traffic from collector streets to freeways or expressways. Many arterial streets have limited access and street facing land uses because of the amount of travel generated on them. Typically, the distances traveled on arterial streets are longer and speeds faster. The number of lanes will vary between four to ten, depending on the traffic flow and location. In Adel, the standard ROW width for an arterial street is one hundred (100) feet with between 3 and 5 lanes.

### **State Road Classifications**

At the state level, Adel's current road system is considered to be primarily composed of local roadways with two arterial highways intersecting the community. Figure 8.1 shows the Iowa highway and street map for Adel.

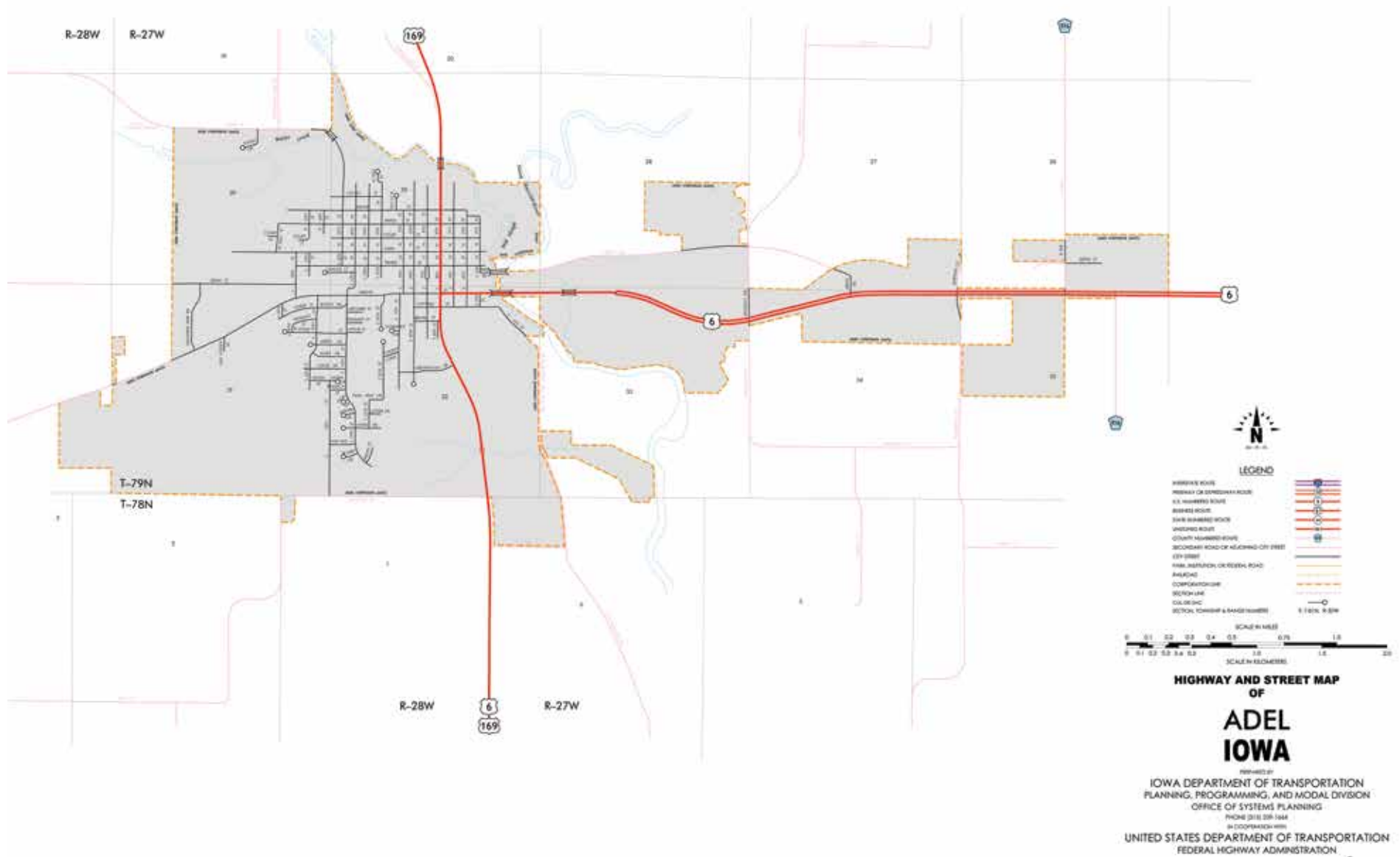


Figure 8.1 Highway and Street Map of Adel, Iowa



## FUTURE STREETS

A series of proposed street expansions have been incorporated into the Future Land Use Plan to complement the land use pattern recommended in the plan. A brief description for each proposed arterial and collector street expansion is described below. Figure 8.2 shows the future street locations. New development should follow this plan, extending identified roadways and dedicating right-of-way as necessary to continue the creation of a road network to serve Adel.

### **Proposed Arterial Streets**

#### **1** (1) Meredith Road Expansion

Adel needs additional east-west arterial streets to improve traffic circulation. The proposed arterial street expands the existing metro Meredith Road and brings the connection into the Adel area.

#### **2** (2) University Avenue Expansion

The expansion of University Road into Adel is a much-needed improvement to the overall circulation of Adel. This extension will help improve access for future industrial / business park uses in the area along Highway 6.

#### **3** (3) Additional River Crossing (University Ave Extension & 302nd Place)

An additional crossing is needed over the Raccoon River to connect Adel to the west. Alongside the extension of University Avenue, the proposed street connection will connect 302nd Place to University Avenue.

#### **4** (4) Ashworth Road Expansion

The extension of Ashworth Road will help improve Adel's circulation and the viability of business park expansion along Highway 169 and provide an additional route into Adel from nearby communities.

#### **5** (5) North-South Arterial Road

An additional arterial north-south connection will be needed to help improve circulation and decrease reliance on Highway 169 for north-south traffic flow.

#### **6** (6) Westward Expansion of 302nd Place

As residential and commercial development continues south of the existing city limits, another arterial roadway will be needed to help accommodate traffic east of Highway 169. This road will connect to several nearby new collector roads as well.

#### **7** (7) R-16 Realignment

A new alignment of R-16 is desired at the intersection with Highway 6. This alignment will allow improved circulation and safety of this intersection. This improvement will help activate this corner as a commercial / industrial development node.

### **Proposed Arterial Streets**

#### **8** (9) Meadow Road Westward Expansion

An expansion of Meadow Road is proposed to help improve circulation of the anticipated residential and commercial growth of this area of Adel.

#### **9** (10) North-South Collector Road / Industrial Park Road Expansion

Currently, there is a lack of north-south collector roadways in the existing new residential areas in this part of Adel and future development should incorporate new roads that improve traffic circulation for residents.

#### **10** (11) North-South Collector Road / Shelby Drive Expansion

A new collector road will provide additional north-south circulation needed in this area to accommodate the increased traffic that will be generated with anticipated residential and commercial growth. The southern segment of the road will also help make the proposed business park land along Highway 169 more viable.

#### **11** (12) East-West Collector Road / 312th Street Expansion

As residential, commercial and business park development may occur in the area south of town perpendicular to Highway 169, a new collector road will be needed to help improve traffic flow and activate the mixed-use and higher density residential area proposed in the area.

### **Proposed Local Streets**

A series of proposed local street lines have been identified to help provide potential circulation plans for the future land use categories included in the land use plan. These streets illustrate potential connections the city and development community should consider when implementing the Future Land Use Plan. The actual local roadways may be similar but not identical to this layout.

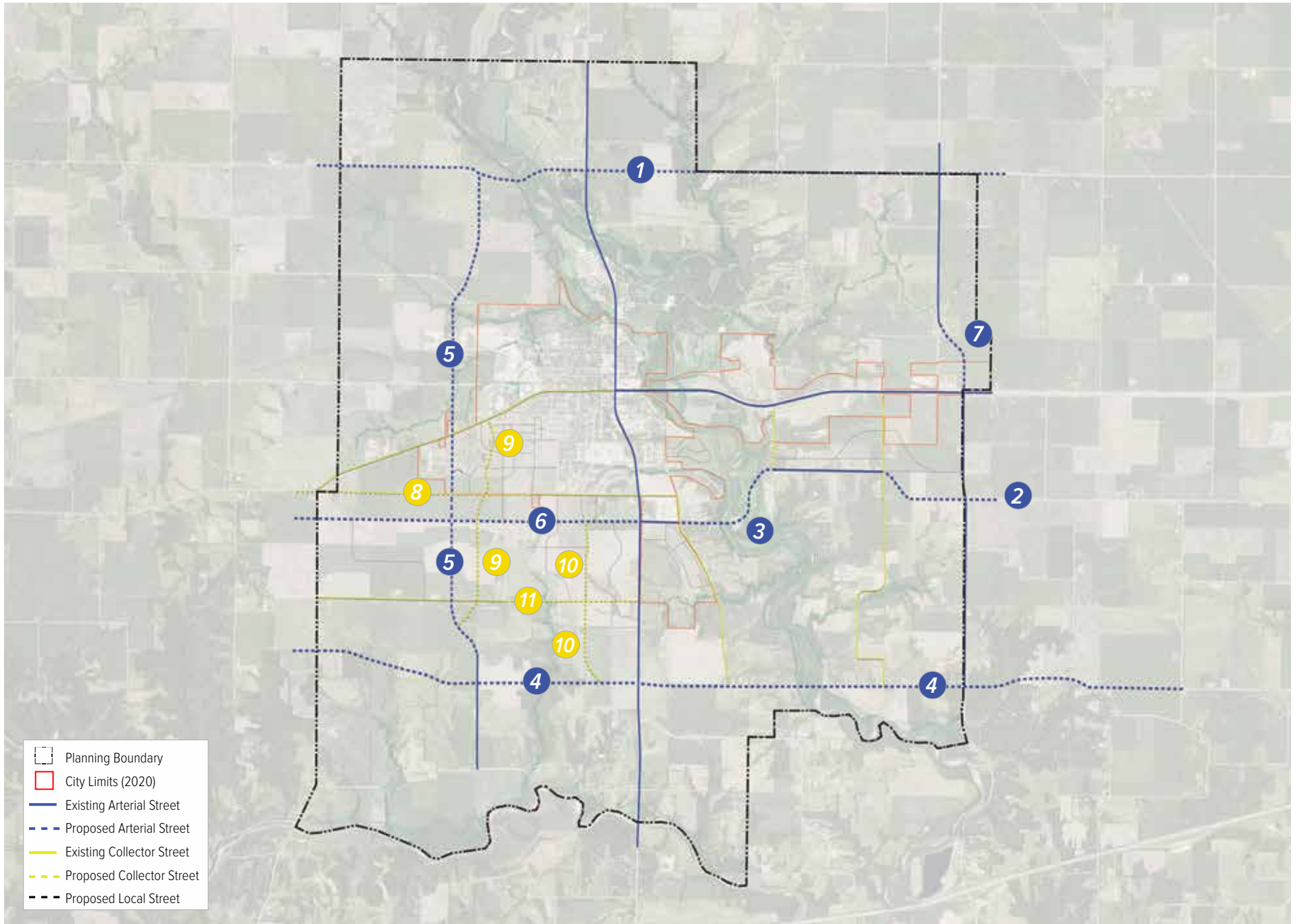


Figure 8.2 Adel Future Streets by Classification

# TRANSPORTATION & MOBILITY

## SIDEWALKS & TRAILS MOBILITY

The U.S. Department of Transportation (DOT) lists sidewalks as the preferred accommodation for pedestrians because of the safety, mobility and health benefits associated with their use. Sidewalks and trails can be the great equalizers of a community by allowing for a means of transport of residents, young and old, with or without access to a vehicle or transit. Sidewalks help support recreation and social interaction within a community in addition to decreasing the likelihood of pedestrian traffic deaths. According to the DOT, roadways without sidewalks are more than twice as likely to have pedestrian crashes as streets with sidewalks on both sides of the street.

Sidewalk coverage on the local and collector roads of the developed parts of Adel is more or less complete. Both new and older residential areas are connected via sidewalks. There are various missing segments scattered throughout the local neighborhood areas but in general the coverage is good with most areas having sidewalks present on both sides of the street. Areas around major activity centers such as the Adel Elementary School, Kinnick-Feller Riverside Park, Evans Park, and downtown Adel appear to all be well served by sidewalks. Sidewalk mobility along Adel's major thoroughfares is more mixed.

The sidewalk mobility along the major arterials in Adel is limited in some key areas but generally comprehensive within the main core of the community. Highway 169 begins to have some sidewalk segments near the intersection of Greenwood Hill Drive across from the Adel Desoto Minburn High School as it becomes Nile Kinnick Drive. This scattered coverage becomes more complete on the eastern side of the road after the high school parking lot. Starting at Cottage Street, Highway 169 / Nile Kinnick Drive has sidewalks on both sides of the street until Grove Street north of downtown. As Nile Kinnick Drive becomes more of a typical Highway north of the Raccoon River, the sidewalk coverage ends. Highway 6 does not have a traditional sidewalk coming into Adel from the east. However, the Raccoon River Valley Trail runs more or less parallel to Highway 6 north of the road connecting Adel to its neighbor, Waukee. Sidewalk coverage begins as Highway 6, now Greene Street, crosses the Raccoon River and continues until the intersection with Van Fossen Lane near the western edge of the community.

## Potential Sidewalk Issue Areas

One issue area for pedestrian safety and sidewalk coverage appears to be the area around the Adel Desoto Minburn High School. Traffic from Highway 169 is still relatively fast in this section of the roadway (Highway 169 / Nile Kinnick Drive), especially due to the decline in the roadway south of the school. The traffic situation is further compounded by the traffic generated from the popularity of the Fareway Grocery located across the street. The City continues to work on addressing the traffic and safety of this street segment.

As Adel's residential and commercial growth continues to expand, especially in the areas south of the existing city limits, the ability to provide additional safe crosswalk opportunities across Highway 169 will likely become important. Collector roads such as Meadow Road may be an opportunity to both expand sidewalk coverage and provide protected pedestrian crossing across Highway 169 to create a connection between the residential growth between Highway 169 and Old Portland Road.

Gap and infill sidewalk extension and maintenance may also be an issue area for Adel to focus on in the next twenty years. It is preferred to have sidewalk connections on both sides of the streets and to prevent segment gaps along a street or corridor. Poorly maintained sidewalks can also become a tripping hazard or decrease the accessibility of the streets for physical or mobility impaired users. An ADA compliance assessment could help Adel identify any specific areas needing improvement.





## OTHER TRANSPORTATION & MOBILITY OPTIONS

### **Public Transportation**

Public transportation services in Adel are primarily delivered through the Heart of Iowa Regional Transit Agency (HIRTA), the regional transportation service provider for central Iowa. HIRTA provides door-to-door transit services for Boone, Dallas, Jasper, Madison, Marion, Story and Warren County. All rides are open to the public including those individuals with disabilities.

### **Aviation Facilities**

The main and largest airport serving the Adel area is the Des Moines International Airport which is located approximately 30 miles away in Des Moines. The Des Moines International Airport is a civil-military airport that connects to 25 major airline hubs and destinations. The Ankeny Regional Airport is also located approximately 30 miles away in Ankeny and mainly serves executive and corporate travel as well as some freight operations. There are several municipal airports located in central Iowa including Perry, Winterset, Knoxville, Newton, Ames and Boone, Iowa.

### **Rail and Trails**

Adel originally had a rail line running east-west through the community in the right-of-way now dedicated to the Raccoon River Valley Trail. The original railroad was built in the 1870s and connected Des Moines with the Iowa Great Lake region in northwest Iowa. By 1952, the increased use of automobiles changed the use of rail transit all across the United States, including central Iowa. The rail line was used for freight trains for another 35 years until service was discontinued. In the late 1980s, the Iowa Trails Council and Conservation Boards for Dallas and Guthrie Counties were able to issue an agreement to allow a multi-use trail along the right-of-way with the first section of the now named Raccoon River Valley Trail (RRVT) opening in 1989. Over the next thirty years the trail has expanded and has become a popular regional trail with more than 350,000 visitors per year. A nine-mile connector trail is currently planned to connect the Raccoon River Valley Trail to the High Trestle Trail, which will likely increase usage of both trail systems.

## TRANSPORTATION & MOBILITY CONSIDERATIONS

### **Paved Street Access for New Development**

No subdivision within 2-miles of the corporate limits of Adel and within the planning boundary should be approved unless it has at least one connection to a paved public street. The subdivider should also be responsible to improve the subdivision's share of any adjoining unpaved roadways and dedicated the appropriate right-of-way. All streets within the subdivision, whether public or private, should be paved to the City's design standards. The City should consider updating the subdivision regulations to define and permit a paved, rural road standard for streets serving rural estate lots that are all greater than one acre in size.

### **Brick Streets**

Adel has a series of historic brick streets throughout the older portions of the community. These unique streets can be charming and have the natural ability to slow down traffic. However, there are also maintenance issues resulting from the bricks that the City needs to consider. Brick streets should be maintained in the historic downtown core of the community, as defined by the Future Land Use Plan, to help maintain community character and slow down traffic in this high activity part of the community. The decision to keep and maintain existing brick streets in areas outside the downtown core should be made on a case-by-case basis with the input of the area residents and property owners.





# PUBLIC FACILITIES

*FACILITIES OVERVIEW  
& DEMAND ESTIMATES*





# PUBLIC FACILITIES

## PUBLIC FACILITIES OVERVIEW

Public facilities are all those community features, services and sites that contribute to the health, safety, and quality of life for Adel residents. Public facilities are those public buildings such as City Hall and the Adel Public Library. It also includes services and protection provided by the Adel Police and Adel Fire Departments. It also covers those extra quality of life features such as museums, county buildings, the fairgrounds and other amenities that enhance the experiences of those living and working in Adel.

This chapter will review the existing public facilities available as well as provide estimates for personnel, facility size and land use demand for a variety of public facilities. Each demand estimate has been completed using the latest U.S. Census Bureau population estimate and the average 2030 and 2040 population projection estimate completed in Chapter 2 - Community Profile. See Table 9.1 for details.

## CITY BUILDINGS & PERSONNEL

The main city building in Adel is the City Hall which is located at 301 S. 10th Street right along the Raccoon River Valley Trail south of the historic downtown square. The Adel City Hall has the offices for the City Administrator, Finance Director, City Clerk, Accounting Clerk, Building Inspector & Code Compliance Officer, Director of Parks & Recreation and the Aquatics / Recreation Supervisor. The City Hall is also home to the City Council Chambers and the Adel Partnership Chamber of Commerce offices.

### City Staff & Facility Space Demand Estimates

Tables 9.2 and 9.3 show the current and future demand estimates for city government employees, city hall facility size and land use demand. By 2040, Adel should expect to employ a total of 130 personnel (including police, fire, maintenance, parks, and other various departments) and maintain roughly 10,751 square feet of facility space.

Table 9.1 Adel Population Estimate + Projection Summary

Adel Population Estimate + Projections	
Year	Population
Existing (2017 est.) Population	4,954
Average 2030 Population Projection	7,656
Average 2040 Population Projection	11,945

Source: U.S. Census Bureau 5 Year Estimates 2013-2017 and Confluence

Table 9.2 Government Employee Demand Estimates

Government Employee Demand - Existing, 2030 and 2040	
Government Personnel Need	LOS
Cities < 50,000	10.9 / 1,000
Existing Government Personnel Needs	Employee Demand
Cities < 50,000	54
2030 Medium Growth	Employee Demand
Cities < 50,000	83
2040 Medium Growth	Employee Demand
Cities < 50,000	130

Source: Planner's Estimating Guide, Nelson 2004

Table 9.3 Government Facility + Land Demand Estimates

General Government Facility Space Demand - Existing, 2040 and 2040	
General Government Facility Space	LOS
Facility Size (Sq. Ft. Per Resident)	0.9
Land Area (Sq. Ft. Per Resident)	3.5
Existing Demand Government Facility Space	Demand
Facility Size	4,459 SF
Land Area (Sq. Ft.)	17,339 SF
Land Area (Acres)	0.40 acres
2030 Medium Growth Government Facility Space	Demand
Facility Size	6,890 SF
Land Area (Sq. Ft.)	26,796 SF
Land Area (Acres)	0.62 acres
2040 Medium Growth Government Facility Space	Demand
Facility Size	10,751 SF
Land Area (Sq. Ft.)	41,808 SF
Land Area (Acres)	0.96 acres

Source: Planner's Estimating Guide, Nelson 2004

Table 9.4 Community Center Facility & Land Demand Estimates

<b>Community Center Space + Land Use Needs- Existing, 2040 and 2040</b>	
Community Center Space + Land Use Needs	LOS
Facility Space (Sq. Ft. Per Resident)	0.75
Land Area (Sq. Ft. Per Resident)	4.0
Existing Community Center Needs	Demand
Facility Space (Sq. Ft.)	3,716 SF
Land Area (Sq. Ft.)	19,816 SF
Land Area (Acres)	0.45 acres
2030 Medium Growth	Demand
Facility Space (Sq. Ft.)	5,742 SF
Land Area (Sq. Ft.)	30,624 SF
Land Area (Acres)	0.70 acres
2040 Medium Growth	Demand
Facility Space (Sq. Ft.)	8,959 SF
Land Area (Sq. Ft.)	47,780 SF
Land Area (Acres)	1.10 acres

Source: Planner's Estimating Guide, Nelson 2004

Table 9.5 Recreation Center Facility & Land Demand Estimates

<b>Recreation Center Space + Land Use Needs - Existing, 2040 and 2040</b>	
Recreation Center Space + Land Use Needs	LOS
Facility Space (Sq. Ft. Per Resident)	0.55
Land Area (Sq. Ft. Per Resident)	2.4
Existing Recreation Center Needs	Demand
Facility Space (Sq. Ft.)	2,725 SF
Land Area (Sq. Ft.)	11,890 SF
Land Area (Acres)	0.27 acres
2030 Medium Growth Recreation Center Needs	Demand
Facility Space (Sq. Ft.)	4,211 SF
Land Area (Sq. Ft.)	18,374 SF
Land Area (Acres)	0.42 acres
2040 Medium Growth Recreation Center Needs	Demand
Facility Space (Sq. Ft.)	6,570 SF
Land Area (Sq. Ft.)	28,668 SF
Land Area (Acres)	0.66 acres

Source: Planner's Estimating Guide, Nelson 2004

## CITY BUILDINGS & PERSONNEL

### Community Center & Recreation Center Demand Estimates

These numbers should be used as a benchmark for future staffing and facility expansion in Adel. Currently, Adel does not have a specific community or recreation center, so these numbers should be used to guide and recommend facility sizing for future expansion. The community room available to reserve at the Adel Public Library likely fulfills some of the existing community center space demand estimates.

The current demand for community center space in Adel is around 3,700 square feet or 0.45 acres. By 2040, Adel would meet the recommended standards by maintaining a community center that is roughly 9,000 square feet on a 1.1-acre site. When considering construction of standalone community center, the higher 2040 estimate would be a better goal to avoid growing out of a space too soon.

The current demand for recreation center space in Adel is around 2,700 square feet on a 0.27-acre site. The long term 2040 projection calls for an approximately 6,500 square foot facility on 0.66 acres.

More and more, communities are opting to create combined city hall, community center and recreation center spaces to cut down on properties maintained and maximize the efficiency of managing city-owned land. The combined demand for community center and recreation center space for 2040 in Adel calls for a 15,500 square foot facility.



# PUBLIC FACILITIES

## CITY BUILDINGS

### Adel Public Library

The Adel Public Library is located at 303 S 10th Street on the same block as the Adel City Hall with direct access to the Raccoon River Valley Trail. The Adel Public Library is served by a director, assistant director, and youth services.

The library offers a variety of public services including:

- Public access computers and free wifi
- Proctoring for students and educators
- Two notary publics
- Scanning and emailing documents
- Copying / Printing / Faxing

In addition to these services, the library has two meeting rooms available to reserve, providing an important source of community center space for residents and groups.

### Adel Library Volume, Facility and Land Use Demand Estimates

Based on the existing population of Adel, the total number of volumes that should ideally be available is approximately 9,900 volumes. The facility space demand is 2,972 square feet on a 0.23-acre site. By 2040, the volume demand increases to roughly 20,200 to serve the projected population. The facility space demand would increase to around 6,000 square feet on 1.24 acres.

The function of libraries is in an evolving state due to the increased reliance on the internet and e-books. While paper books are still in demand, the role of the library has evolved to include more programs and services such as writing, reading or craft classes and skills training and programs.

Table 9.6 Library Demand Estimates

Adel Library Volume, Facility + Land Use Needs Existing, 2030 and 2040	
Existing Volume, Facility + Land Use Needs	Estimated Demand
Volumes	9,908 volumes
Facility Size (Sq. Ft.)	2,972 SF
Land Area (Sq. Ft.)	9,908 SF
Land Area (Acres)	0.23 acres
2030 Medium Growth	Estimated Demand
Volumes	15,312 volumes
Facility Size (Sq. Ft.)	4,594 SF
Land Area (Sq. Ft.)	23,890 SF
Land Area (Acres)	0.55 acres
2040 Medium Growth	Estimated Demand
Volumes	20,236
Facility Size (Sq. Ft.)	6,071 SF
Land Area (Sq. Ft.)	20,236 SF
Land Area (Acres)	1.24 acres
Source: Planner's Estimating Guide, Nelson 2004	





Table 9.7 Police Personnel, Facility + Land Use LOS Standards

Police Personnel, Facility + Land Use LOS Standards		
Police Personnel Standards	Lower LOS (/1,000)	Higher LOS (/1,000)
West North Central Cities	1.69	1.97
Cities 10,000 - 24,999	2.05	2.32
Police Facility + Land Use Needs	LOS	
Facility Sq. Ft. per Resident	0.65	
Land Area Sq. Ft. per Resident	3	
Source: Planner's Estimating Guide, Nelson 2004		

Table 9.8 Police Personnel Demand Estimates

Police Personnel Needs - Existing, 2040 and 2040		
Existing Police Personnel Needs	Lower LOS	Higher LOS
West North Central Cities	8	10
Cities 10,000 - 24,999	10	11
2030 Medium Growth	Lower LOS	Higher LOS
West North Central Cities	13	15
Cities 10,000 - 24,999	16	18
2040 Medium Growth	Lower LOS	Higher LOS
West North Central Cities	20	24
Cities 10,000 - 24,999	24	28
Source: Planner's Estimating Guide, Nelson 2004		

Table 9.9 Facility & Land Use Demand Estimates

Police Facility & Land Use Needs - Existing, 2030 and 2040	
Existing Facility + Land Use Needs	Estimated Demand
Facility Size (Sq. Ft.)	3,220 SF
Land Area (Sq. Ft.)	14,862 SF
Land Area (Acres)	0.34 acres
2030 Medium Growth	Estimated Demand
Facility Size (Sq. Ft.)	4,976 SF
Land Area (Sq. Ft.)	22,968 SF
Land Area (Acres)	0.53 acres
2040 Medium Growth	Estimated Demand
Facility Size (Sq. Ft.)	7,764 SF
Land Area (Sq. Ft.)	35,835 SF
Land Area (Acres)	0.82 acres
Source: Planner's Estimating Guide, Nelson 2004	

POLICE

Police Overview

Adel is served by a permanent police force composed of a Chief of Police, Lieutenant, Sergeant, seven officers and a Police Chief Secretary. This group of dedicated officers is available for Adel residents for family safety concerns, observation of potential crime, neighborhood safety issues and more.

Police Personnel & Facility Demand Estimates

According to national levels of service (LOS) standards, Adel should currently have between 8 and 11 full-time police personnel in an approximately 3,200 square foot facility on 0.34 acres. By 2040, the demand for personnel will likely increase to between 20 to 28 full-time staff. The 2040 demand for facility space will be around 7,700 square feet on 0.82 acres.



# PUBLIC FACILITIES

## FIRE / EMS

### Fire Overview

The City of Adel is currently served by a volunteer fire department. The volunteer department is composed of more than twenty-five individuals with varying backgrounds and years of experience. The department is completely volunteer based and often holds fundraising events and offers education opportunities for the community to learn about fire prevention.

### Fire / EMS Personnel & Facility Demand Estimates

According to national levels of service (LOS) standards, Adel should currently have between 5 and 7 full-time fire / EMS personnel in an approximately 2,000 square foot facility on 0.28 acres. By 2040, the demand for personnel will likely increase to between 13 to 18 full-time staff. The 2040 demand for facility space will be around 4,700 square feet on 0.69 acres.

Currently, Adel operates with a volunteer fire department and this skews the existing demand for fire personnel. With a volunteer fire squad, more personnel will be needed to cover protection for the entire community. If in the future Adel were to transition to a permanent full-time fire / ems department, the number of personnel and facility space would be more in line with the demand estimates listed in Tables 6.11 and 6.12.

More and more, fire, police and EMS services are opting to reside in joint public safety facilities to maximize the efficiency and use of government space. If by 2040, the police and fire were to construct a joint facility, the combined demand could be approximately 12,500 square foot building.

Table 9.10 Fire / EMS Personnel, Facility & Land Use LOS Standards

Fire / EMS Personnel, Facility + Land Use LOS Standards		
Fire / EMS Personnel Standards	Lower LOS (/1,000)	Higher LOS (/1,000)
West North Central Cities	1.07	1.27
Cities 10,000 - 24,999	1.47	1.51
Fire / EMS Facility + Land Use Needs		
Facility Sq. Ft. per Resident	0.4	
Land Area Sq. Ft. per Resident	2.5	
Source: Planner's Estimating Guide, Nelson 2004		

Table 9.11 Fire / EMS Personnel Demand Estimates

Fire / EMS Personnel Needs - Existing, 2040 and 2040		
Existing Fire Personnel Needs	Lower LOS	Higher LOS
West North Central Cities	5	6
Cities 10,000 - 24,999	7	7
2030 Medium Growth	Lower LOS	Higher LOS
West North Central Cities	8	10
Cities 10,000 - 24,999	11	12
2040 Medium Growth	Lower LOS	Higher LOS
West North Central Cities	13	15
Cities 10,000 - 24,999	18	18
Source: Planner's Estimating Guide, Nelson 2004		

Table 9.12 Fire / EMS Facility & Land Use Demand Estimates

Fire / EMS Facility & Land Use Needs - Existing, 2030 and 2040	
Existing Facility + Land Use Needs	Estimated Demand
Facility Size (Sq. Ft.)	1,982 SF
Land Area (Sq. Ft.)	12,385 SF
Land Area (Acres)	0.28 acres
2030 Medium Growth	Estimated Demand
Facility Size (Sq. Ft.)	3,062 SF
Land Area (Sq. Ft.)	19,140 SF
Land Area (Acres)	0.44 acres
2040 Medium Growth	Estimated Demand
Facility Size (Sq. Ft.)	4,778 SF
Land Area (Sq. Ft.)	29,863 SF
Land Area (Acres)	0.69 acres
Source: Planner's Estimating Guide, Nelson 2004	



Table 9.13 Adel DeSoto Minburn Community School District Enrollment Projections

Adel DeSoto Minburn Community School District Enrollment Projections		
School Year	Total Projected Enrollment	Enrollment Change
2018-2019	1,882	+77
2019-2020	1,985	+103
2020-2021	2,087	+108
2021-2022	2,195	+108
2022-2023	2,323	+128
2023-2024	2,409	+86
2024-2025	2,474	+65
2025-2026	2,577	+103
2026-2027	2,649	+72
2027-2028	2,738	+89

Source: Adel DeSoto Minburn School District / ISDE

## SCHOOLS

### Public Schools

Adel is served by the Adel-DeSoto-Milburn (ADM) Community School District. The District Administration Center is in Adel at 215 N. 11th Street. The district classroom facilities are currently divided by grades into one high school (grades 9-12), one middle school (grades 6-8), one intermediate school (grades 3-5) and one elementary school (grades PK-2). The high school, middle school and elementary school are in Adel while the intermediate school is in DeSoto.

The ADM High School was named the 8th best high school in the state by the U.S. News and World Report and is ranked 35th on the Iowa AP Index. The district is well known for their commitment to keeping class sizes low, a feat they have maintained despite district-wide population growth.

Table p.13 shows the ADM school district projections through the school year of 2027-2028. While the school district covers a much wider territory than just the City of Adel, the strong growth rate of between 72 to 128 additional students per year indicates the Adel area overall is expected to grow.

The ADM Community School District completed a Facility Master Plan in 2019 that outlines options for the district to handle the growth in enrollment they have experienced. The effort was completed as a collaborative effort between the community and district and included a wide variety of datasets and analysis. The long-range plan identified a series of strategies to address short and long-term issues.

As the largest community within the school district, Adel will be impacted by the long-term facility decisions made by the school board which point towards the need for additional elementary and middle school capacity. The ADM Community School District is scheduled to break ground in early 2020 on its new 2-4 elementary school, which will open Fall 2021 ( current projection).



# PUBLIC FACILITIES

## HEALTH FACILITIES

### Clinics & Hospitals

The main local clinic located in Adel is the Mercy One Adel Family Medicine Clinic at 1120 Greene Street. The clinic is a branch of the Mercy Hospital in Des Moines. The hours of operation are 7:30 A.M.-4:30 P.M. Monday through Friday, 8:00 A.M.-noon on Saturday and they are closed Sunday. The clinic offers family medicine services. There is no hospital in Adel with the closest major hospital being Methodist West Hospital in West Des Moines 13 miles east of Adel.

### Emergency Medical Services

Adel, Iowa is served by Dallas County Emergency Medical Services. The Dallas County EMS has two base locations in Adel and Perry, Iowa. The Adel branch is located at 512 S. Nile Kinnick Drive in Adel. The mission of the Dallas County EMS is to provide advanced lifesaving pre-hospital care to the citizens and visitors of Dallas County. Adel residents can reach the service by calling 911. The emergency medical technicians (EMTs) will perform a variety of emergency interventions and will transport patients to a larger hospital facility if conditions warrant.

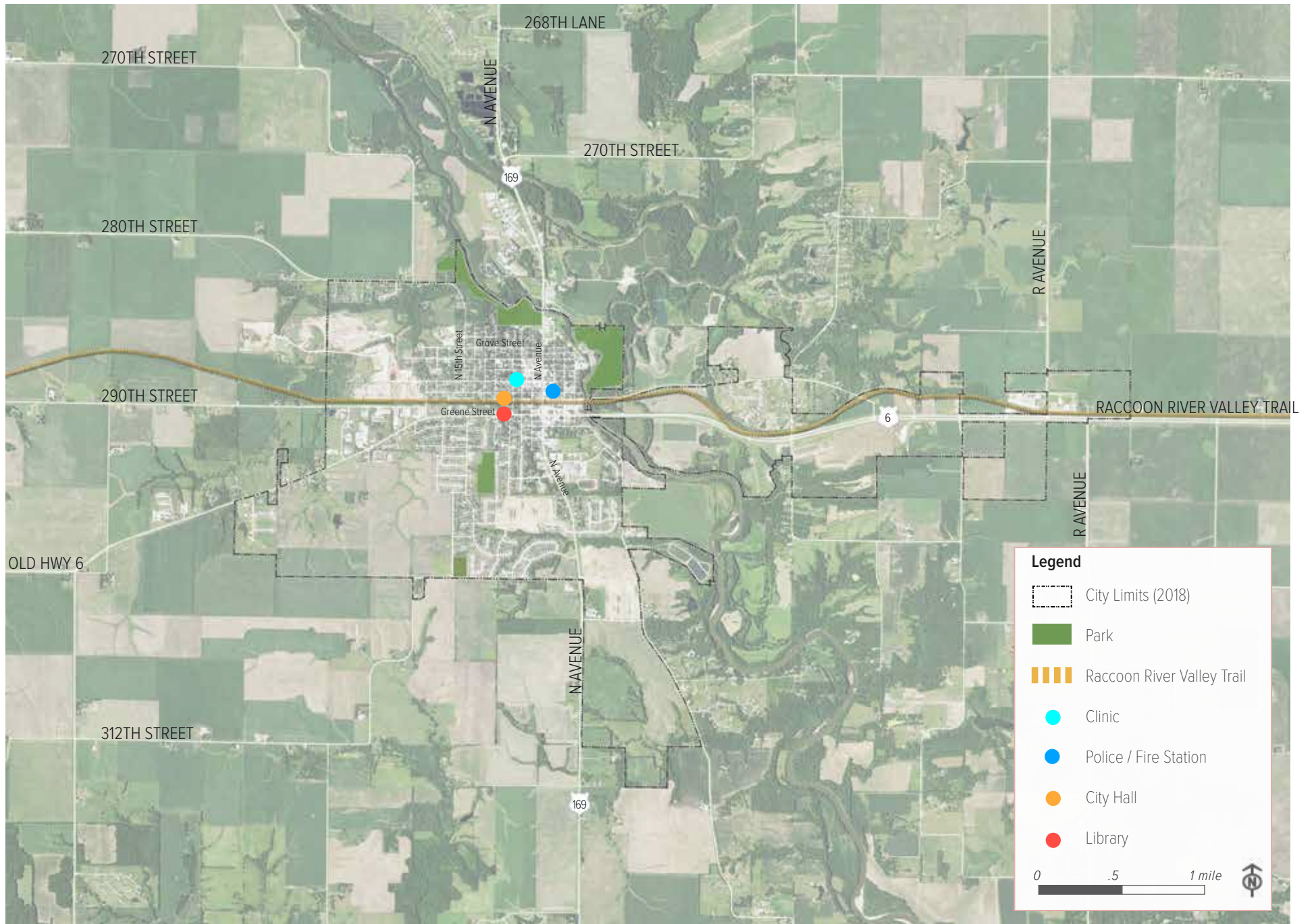
## OTHER PUBLIC FACILITIES

As the county seat, Adel is home to several other public facilities uncommon in communities of similar size. Other public facilities in Adel include:

- Adel Historical Museum
- Dallas County Courthouse
- Various Dallas County Administrative Buildings
- Dallas County Fairgrounds

Figure 9.1 shows the approximate location of the public facilities available in Adel, Iowa.





Data Source: City of Adel







# COMMUNITY CHARACTER

*CHAPTER OVERVIEW & KEY  
CONSIDERATIONS*



# COMMUNITY CHARACTER

## COMMUNITY CHARACTER OVERVIEW

Community character consists of all those features and amenities that contribute to a sense of place and community identity for a city. Community character can be established through the geographic location and natural features of a community. It may also be created through intentional decision making at a city-level to enhance key assets and features that help make their community special.

The key areas of community character to support within planning and decision making in Adel include:

- Buffers
- Signage
- Neighborhood Preservation
- Neighborhood Creation
- Streetscape Standards
- Downtown Enhancement
- Historic Preservation

## BUFFERS

Adel is intersected with two large highways that provide access to and through Adel for most residents and visitors as well as a significant amount of truck traffic. The level of truck traffic is likely to increase due to the upcoming large-scale industrial developments occurring in the neighboring city of Waukee directly east of town. Buffers, especially landscape and vegetation-dense buffers, can help shield residential areas near these highways from being too negatively impacted



## SIGNAGE

As Adel experiences growth, an attractive and coherent signage strategy can be used to further develop a feeling of unity. A consistent signage strategy can create a distinct sense of place that welcomes visitors and provides way finding and acknowledgement opportunities for residents. Signage at the entrances of the community provide a gateway into the community. Signage placed throughout downtown and in residential communities provides a sense of cohesion throughout the community. It is especially important to alert Raccoon River Valley Trail users of retail and restaurant availability in the downtown. This can help to bring them in off the trail or spark interest to return to Adel at another time.



## NEIGHBORHOOD PRESERVATION

Adel is a historic town with a long history dating back to the 1800s. The historic nature of Adel has led to an established neighborhood feel to many of the older residential areas of Adel. As the community grows, it is important to prioritize neighborhood preservation to ensure older neighborhoods do not get left behind amidst the growth.

Neighborhood preservation can come in many forms. Maintaining the facades and streetscapes of older neighborhoods can help provide a stable sense of community in a neighborhood. Working to ensure that older homes are adequately taken care of is also important to neighborhood preservation. Revolving loan funds or grant programs for façade improvements or for modernization of existing older homes can be another tool for neighborhood preservation. Investments in a few key properties can help ignite more widespread reinvestment in older neighborhoods. Code enforcement for various conditions can also help support long-term vitality for neighborhoods.

## NEIGHBORHOOD CREATION

Growing communities like Adel that have a combination of older and new neighborhoods face the dual problem of preserving older and possibly historic neighborhoods while ensuring that newly created neighborhoods maintain the sense of neighborhood feel. As important as neighborhood preservation is, it is equally important to ensure that new neighborhood subdivisions feel cohesive and part of the Adel community. Neighborhood creation can be accomplished through the use of pedestrian and auto connectivity or street trees. Residential growth that expands at natural boundaries of the existing community can also help new neighborhoods feel like they are part of the community. When leapfrog developments occur away from the core of the community, they can often feel disjointed and not a part of the existing community.





# COMMUNITY CHARACTER

## STREETSCAPE STANDARDS

Consistent streetscape standards and the requirement of pedestrian amenities such as street furniture, street trees, a consistent signage strategy, and sidewalks all help improve the experience of pedestrians and automobiles alike. Adel is well known for its historic brick streets that run through the older parts of the community near the downtown. Brick streets, despite perceived issues with maintenance / snow removal, provide a charming look and feel to Adel. This charm also helps to naturally slow down traffic along these streets, an added bonus to nearby residents and pedestrians. While it is not feasible to maintain every street in Adel with bricks, having a brick feature as major pedestrian crossings or stop lights throughout the community could help create a sense of place.



## DOWNTOWN ENHANCEMENT

While downtown Adel is a great asset for the community, there are definite improvements that could be accomplished to make the downtown better serve residents and attract visitors. Currently, Adel has limited all-day activity uses in the downtown which limits the overall commercial and entertainment value of the area. Encouraging all-day activities such as restaurants, boutique retail and pubs over offices (which traditionally hold daytime-only hours) could help. To better serve the users of the Raccoon River Valley Trail, trail centric retail and services such as a bike shop, brew pubs or cafes could also boost activity in the downtown and help create downtown Adel as a true destination.



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# INFRASTRUCTURE

## *SYSTEM OVERVIEW & EXPANSION ANALYSIS*



WATER SERVICE

Water service in the Adel planning boundary is mainly provided by one of two providers: City of Adel and Xenia Rural Water District. The City of Adel maintains its own water and sewer treatment plants to help provide competitive utility rates. Table 11.1 shows the monthly water rates for Adel water service as of July 1, 2019. The cost of new water hook-up for residential properties is \$800 and \$500 plus the cost of meter for commercial properties.

According to the Xenia Rural Water District website, the Xenia Rural Water District began distributing water in 1982. Xenia currently serves portions of 11 counties, 16 communities and over 10,000 customers, including Dallas County and parts of the Adel planning boundary.

Water Infrastructure Expansion – South of Adel

According to a technical memo provided by McClure Engineering in 2017, the City does not currently have water infrastructure south of the existing city limits. However, some of the area is currently served by Xenia Rural Water District due to a 1993 agreement between the City and Xenia. All areas outside of this 1993 agreement would require an additional agreement approved by both the City of Adel and Xenia. The 1993 agreement requires that both entities agree on which land and customers each will provide service to within a 2-mile boundary of Adel. According to the agreement, the City may purchase service area from Xenia to provide water to a given area in the event of annexation.

McClure created a probable opinion of cost necessary to extend the current southern high-pressure zone into the annexation area. Table 11.2 shows the cost of infrastructure improvements necessary to fully develop the proposed southside annexation.

Water Financing – Southside Annexation

Table 11.3 shows the estimated probable cost of the water infrastructure needed for the southside annexation. McClure estimated a \$6,000 connection fee for every one (1) acre of undeveloped land that would fund between \$4.0 and \$6.0 million. The remainder of the cost would likely come from water user fees and future connection fees. The estimated portion of the water fee necessary to go to debt service would be between \$35 and \$50 to fund a 2% loan over twenty (20) years.

Figure 11.1 shows the South Annex Water Utility Evaluation for Adel.

Table 11.1 City of Adel Water Rates (2019)

City of Adel Water Rates	
New Water Hookup Rates	Rate
Residential	\$800.00
Commercial	\$500 + cost of meter
Monthly Water Rates (City of Adel only)	Rate
First 5,000 gallons	\$8.14 / thousand
Next 6,000 to 20,000 gallons	\$5.49 / thousand
Next 21,000 to 100,000 gallons	\$4.44 / thousand
101,000+ gallons	\$3.46 / thousand
Minimum Water Charge	\$40.28
Source: City of Adel	

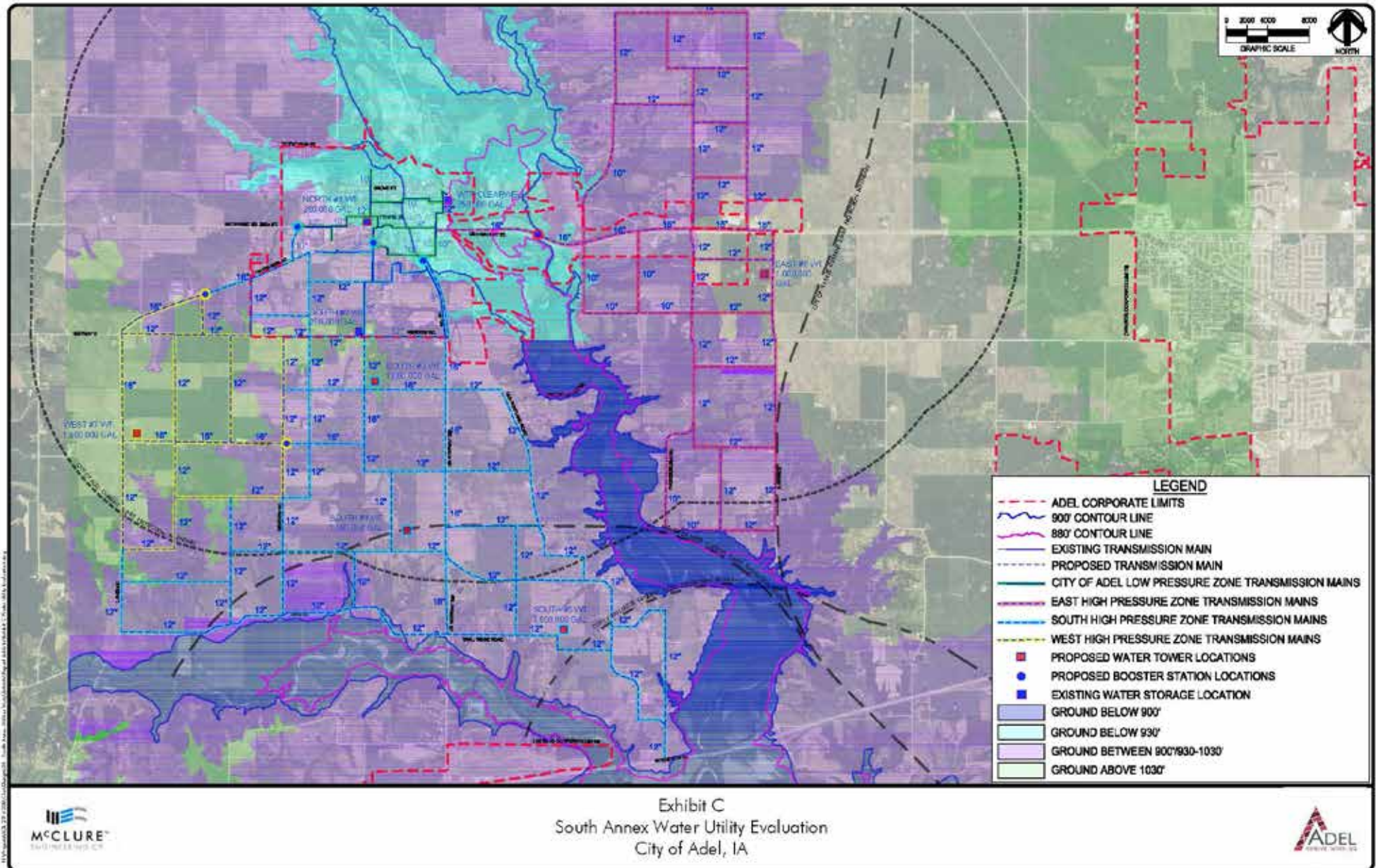


Figure 11.1 South Annex Water Utility Evaluation



Table 11.2 Probable Cost per Undeveloped Acre for Water Infrastructure Southern Annexation Area

	Southern Annexation			
	North of De Soto Boundary		North of South Raccoon River	
Description	Required Infrastructure Capacity	Opinion of Probable Cost	Required Infrastructure Capacity	Opinion of Probable Cost
Population (additional)	4,335	-	5,405	-
# Alluvial Wells	3-EA	\$1.650	4-EA	\$2.200
Water Treatment Plant Capacity	1.1 - MGD	\$4.400	1.3 - MGD	\$2.200
Distribution Storage Capacity	0.6 - MGD	\$2.100	0.7 - MG	\$2.450
Booster Station Capacity	590 - GPM	\$0.150	570 - GPM	\$0.200
Length of Water Main	23,500 - LF*	\$6.100	26,100 - LF*	\$6.600
<b>Total Opinion of Probable Cost</b>		<b>\$14.400</b>		<b>\$17.000</b>
Source: McClure Engineering "South Annex Utilities Technical Memo" April 18, 2017				

Table 11.3 Example Southern Annexation Water Utility Financing

Description	North of Desoto Boundary	North of South Raccoon River
Water Utility Improvement Cost	\$14,400,000	\$17,000,000
- Total Number of Acres Served	667	1,013
- Example Connection Fee per Acre	667	\$6,000
Total Connection Fee Revenue	\$4,002,000	\$6,078,000
Remaining Water Utility Improvements Cost	\$10,398,000	\$10,922,000
- Projected Number of Total Users in Service Area	1,445	1,800
- Financing Terms	2.0% & 20 years	2.0% & 20 years
Required Debt Service Availability in Average User Rate	\$40.35	\$34.05
Source: McClure Engineering "South Annex Utilities Technical Memo" April 18, 2017		

SANITARY SEWER SERVICE

Currently, Adel operates their own sanitary sewer service within the existing city limits. All properties outside the city limits but within the planning boundary likely have individual septic systems Table 11.4 shows the monthly sewer rates and connection fee. The connection fee for a sewer connection is \$500 per property. The minimum sewer charge is \$30.50. The first 5,000 gallons of wastewater costs \$7.75 per thousand gallons and every one-thousand gallons after is \$5.56.

Wastewater / Sanitary Infrastructure Expansion – South of Adel

Wastewater planning is more watershed and topography driven. Features like hills or ravines can lead to issues with the need for pump stations or excessive water depth. Wastewater collection systems aim for their design to maximize the use of gravity flow to minimize the costs and infrastructure needed.

Adel hired McClure Engineering to create a technical memo to assess the viability and cost of infrastructure expansion due to annexing a large area south of the existing city limits. The study reviewed three main basins located south of Adel:

- Southeast Sanitary Basin
- Old Portland Road Sanitary Basin
- Central Ravine Sanitary Basin

Wastewater Financing – Southside Annexation

Table 11.5 shows the Phase I / II Southern Annexation Wastewater Utility Infrastructure Improvements and the opinion of probable cost for each basin’s needed improvements. McClure states that most water and wastewater utility improvements are financed through one or a combination of the following methods:

- Conventional revenue OR general obligation bonds
- General obligation bonds abated by utility revenues
- Community Development Block Grants (CDBG)
- State Revolving Fund (SRF) Loans
- USDA Rural Development Loans & Grants
- Connection fee districts

McClure provided an estimated financing plan for wastewater in the area south of Adel. Table 11.6 shows the probable cost of constructing wastewater infrastructure for the area south of Adel. They estimate a \$3,000 to \$6,000 connection fee would help

fund \$17.0 million of the probable cost. The remaining cost would need to come from user fees. The portion of the fee that would likely need to go to debt payment is \$15 to \$30 per fee for a 2% loan over twenty years.

Figure 11.2 shows the South Annex Sanitary Sewer Utility Evaluation for the area south of Adel.

Table 11.4 City of Adel Water Rates (2019)

City of Adel Sanitary Sewer Rates	
New Sewer Connection Rate	Rate
Sewer Connection	\$150.00
Monthly Sanitary Sewer Rates	Rate
First 5,000 gallons	\$7.75 / thousand
Everything thereafter	\$5.56 / thousand
Septic Haulers - minimum 1,500 gallons	\$118.55
CSI Surcharge	\$15.00
Minimum Sewer Charge	\$30.50
Source: City of Adel	

*Table 11.5 Southern Annexation Wastewater Utility Infrastructure Improvements*

No	Description	Southeast Basin	Old Portland Rd Basin	Central Ravine Basin	Opinion of Probable Cost
1	Trunk Sewer U/S of Central Ravine LS (18"-5015')			X	\$1.550
2	Central Ravine Lift Station (1.5 MGD) & Forcemain (10"-3105')			X	\$2.525
3	Trunk Sewer B/w Central Ravine & Portland Rd LS (24"-9855')		X	X	\$2.825
4	Old Portland Road Lift Station (2.6 MGD) & Forcemain (12"-3970')		X	X	\$3.515
5	Trunk Sewer B/w Portland Road LS & WWTP (24"-3425')		X	X	\$1.000
6	Trunk Sewer for Southeast Basin (10"-2220')	X			\$0.595
7	WWTP Expansion (1.3 MGD AWW Capacity)	X	X	X	\$5.720
<b>Total Opinion of Probable Cost</b>					<b>\$17.730</b>
Source: McClure Engineering "South Annex Utilities Technical Memo" April 18, 2017					

*Table 11.6 Example Southern Annexation Water Utility Financing*

Description	Southeast Basin	Old Portland Rd Basin	Central Ravine Basin
Sanitary Utility Improvements Cost	\$1,150,000	\$12,000,000	\$24,700,000
- Total Number of Acres Served	135	1,245	1,890
- Example Connection Fee per Acre	\$4,000	\$5,000	\$6,000
Total Connection Fee Revenue	\$540,000	\$6,225,000	\$11,340,000
Remaining Sanitary Utility Improvement Costs	\$610,000	\$5,775,000	\$13,360,000
- Projected # Total Users in Service Area	200	1,865	2,835
- Financing Terms	2% & 20 years	2% & 20 years	2% & 20 years
Required Debt Service Availability in Average User Rate	\$17.10	\$17.40	\$26.45
Source: McClure Engineering "South Annex Utilities Technical Memo" April 18, 2017			



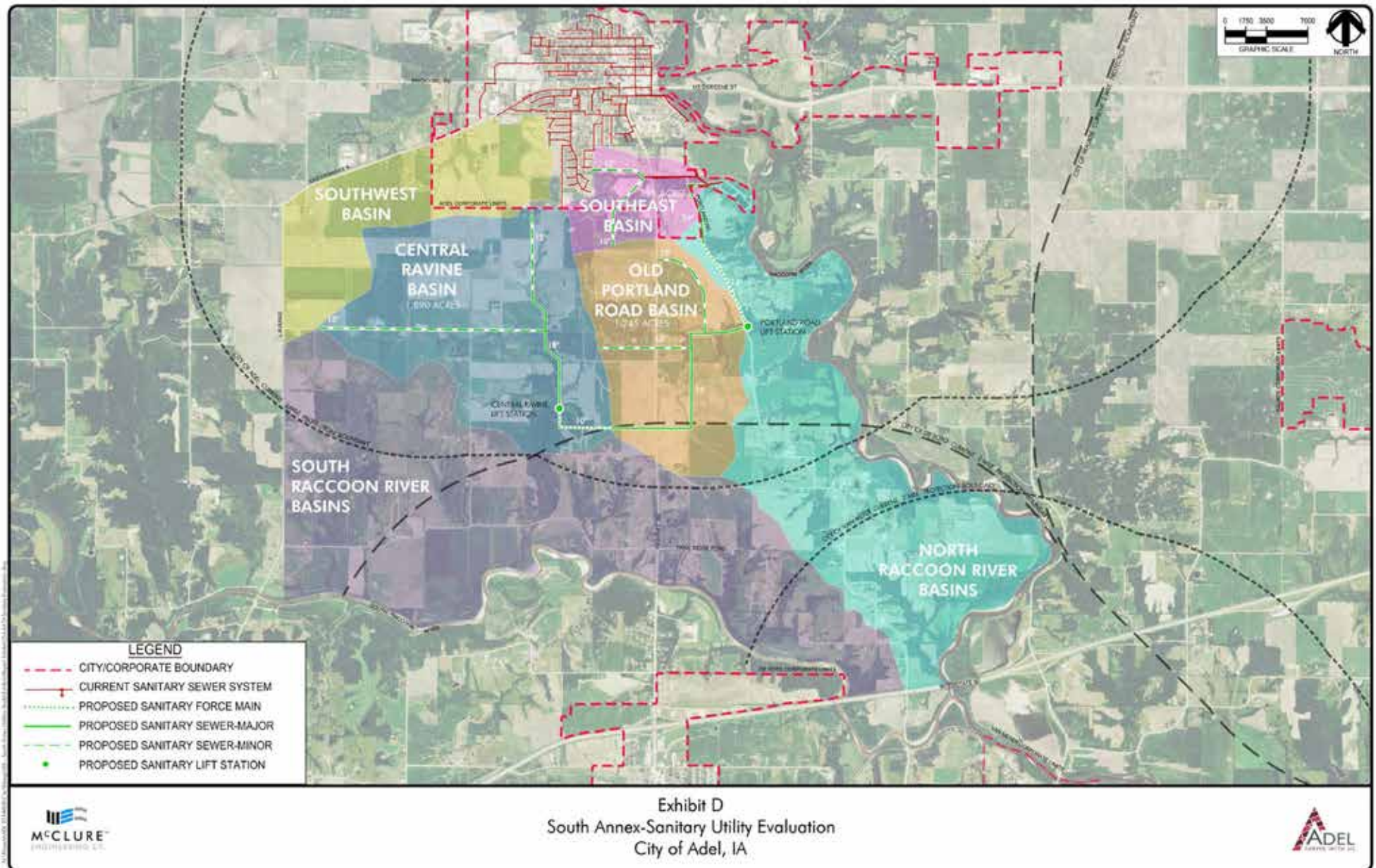


Figure 11.2 South Annex - Sanitary Sewer Utility Evaluation

## STORMWATER UTILITY SERVICE

Stormwater runoff comes from rainfall or snowmelt running across impermeable surfaces such as pavement or concrete. As it goes over these surfaces, it picks up contaminants such as grease, fertilizers, litter or metal. This polluted water eventually enters the water system through streams, creeks or lakes. Runoff can also cause flooding because impermeable surfaces do not allow water to naturally filter into the ground to slow down flood waters.

As of 2010, the City of Adel collects stormwater utility fees on developed land within city limits. Stormwater management fees in Adel are determined based on the total impervious surface area on the property as calculated using equivalent service units (ESU). ESU's are a measure of the impervious surface on a property. One ESU, per Adel code, is equivalent to 3,000 square feet of impervious surface. Stormwater fees go towards operation and maintenance costs of stormwater management in Adel. Services tied to stormwater management programs include flood prevention, water quality control, public education and outreach, storm sewer system maintenance and illicit discharge detection and elimination.

Undeveloped land pays zero (\$0.00) per month. Developed land pays \$3.00 per month for those properties which impervious coverage is less than two (2) times the average impervious coverage or 6,000 square feet. Or, developed land \$3.00 per ESU of impervious surfaces for those properties which impervious coverage is equal to or greater than two (2) times the average impervious coverage or 6,000 square feet. Properties with detention or retention facilities may be eligible for a credit to be applied to its service charge.

## INFRASTRUCTURE KEY RECOMMENDATIONS

### **Sanitary Sewer Service**

No subdivision within 2-miles of the corporate limits of the City and within the City's planning boundary should be approved unless provisions for sewer service have been made. If within an area that is planned for City sanitary sewer service, the subdivider shall construct a dry sanitary sewer system with an agreement that the subdivision will connect to the City's system when the area is annexed into the City and City sanitary sewer is made available. If the area is planned for City sanitary sewer service but that service is not likely to occur within the next 20 years, then the subdivider shall devise a plan, reserve easements, and establish agreements necessary for the future extension and connection of the subdivision to the City sanitary sewer system when it becomes available. If the area is never likely to be served by City sanitary sewer, then an alternative sewerage system may be proposed by the subdivider.

City sanitary sewer service should not be provided to any property located outside the City corporate limits. The City Council may grant an exception for existing developed properties requesting city sewer to resolve a septic system issue provided that property executes an agreement to annex into the City when requested by the City.

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# IMPLEMENTATION PLAN

*GOALS, POLICIES &  
ACTION ITEMS*



# IMPLEMENTATION PLAN

## NATURAL RESOURCES

No.	Goal / Policy / Action Item	Priority Level	Timeframe
G1	<i>Preserve and conserve ecologically sensitive land within Adel</i>		
A1	Consider adopting a slope preservation ordinance	Medium	0-4 years
A2	Adopt a stream buffer ordinance to provide a 100-foot buffer around type 1 perennial streams	High	0-4 years
A3	Adopt ordinance requiring new development to incorporate existing high-quality wetlands as an amenity where appropriate	Medium	0-4 years
P1	Expand river access and promote conservation efforts along the North Raccoon River	Medium	-
P2	Work with North Raccoon Watershed Management Coalition (NRRWMC) to address watershed concerns	High	-
P3	Protect, preserve and increase tree cover	Medium	-
G2	<i>Promote environmental best practices for new development and redevelopment in Adel</i>		
A1	Update ordinance to prohibit development within the floodplain to prevent and minimize damage from flooding and protect property and personal safety of Adel residents	High	0-4 years
A2	Continue to implement the 2017 Water Conservation Plan to promote city-level water conservation efforts	High	10+ years
A3	Continue to educate residents on water pollution and conservation best practices	Medium	10+ years
A4	Promote the planting of a variety of tree species in new development by strengthening landscaping requirements for multi-residential, commercial and industrial development	High	0-4 years
P1	Encourage green infrastructure solutions within site design	Medium	-
P2	Discourage unnecessary impermeable surfaces near creeks and rivers to prevent runoff and reduce impact of flooding	High	-
P3	Preserve tree stands and vegetation along stream banks to prevent flood damage and protect water quality	High	-
P4	Promote structural and non-structural stormwater best management practices for new development, redevelopment and the maintenance and upgrade of existing city infrastructure	High	-
P5	Encourage green infrastructure solutions within site design	Medium	-



## PARKS &amp; RECREATION

No.	Goal / Policy / Action Item	Priority Level	Timeframe
G1	<i>Provide a high level of parks and recreation service in Adel</i>		
A1	Continue to evaluate and implement the recommendations within the Adel Comprehensive Park and Open Space Plan	Medium	5-9 years
A2	Support efforts to create a large outdoor sports complex in Adel	Medium	5-9 years
A3	Support the construction of an indoor recreation complex or community center with multifunction meeting space	Medium	5-9 years
A4	Continue development of currently undeveloped parkland in Adel	High	0-4 years
P1	Expand neighborhood parks in Adel as the community grows	High	-
P2	Increase trail access and connectivity in Adel	High	-
P3	Strive to have most Adel residents live within a 5 to 10-minute walk-time of a park	Medium	-
G2	<i>Ensure Adel is efficient in providing a high-quality and diverse park and recreation system that reflects the needs of the Adel community</i>		
A1	Consider creating a special ADA compliant park in Adel	Medium	5-9 years
P1	Continue to evaluate options to partner with school district on shared facilities	Medium	-
P2	Continue to review the lifecycle of programs and facilities to ensure they continue to meet the needs of the community	Medium	-
P3	Support areas of low-maintenance landscapes such as native prairie land to add variety to the user experience and reduce mowing and maintenance needs in the community	Medium	-
G3	<i>Promote Adel's identity as a trail and recreation community</i>		
A1	Attract trail-centric support retail such as bike shops, cafes, brew pubs and restaurants near the Raccoon River Valley Trail	High	0-4 years
A2	Expand wayfinding signage to encourage trail users to explore Adel	High	0-4 years
A3	Explore opportunities to activate and expand access to the North Raccoon River for recreation and educational uses including white water rapids	Low	10+ years

# IMPLEMENTATION PLAN

## HOUSING

No.	Goal / Policy / Action Item	Priority Level	Timeframe
G1	<i>Provide a wide mix of housing types in Adel</i>		
A1	Update zoning code to allow for areas with smaller lot homes, agri-hoods, cluster subdivisions and accessory dwelling units (ADUs)	Medium	0-4 years
P1	Promote upper-story downtown housing options	Medium	-
P2	Plan for a mixture of low, medium and high-density housing options to serve residents of different age and income levels	Medium	-
P3	Attract senior housing developments in Adel	High	-
G2	<i>Preserve and protect existing, older residential neighborhoods in Adel</i>		
A1	Perform an assessment of older existing single-family homes to protect the valuable affordable housing stock by identifying targeted areas for neighborhood investment	Medium	5-9 years
A2	Consider creating an owner and renter-occupied housing rehabilitation program to support existing single-family home maintenance	Medium	5-9 years
P1	Discourage the conversion of older single-family homes into multi-family home conversions	High	-
G3	<i>Support new housing growth in Adel</i>		
A1	Require medium and high-density residential developments to be aesthetically pleasing through the use of high-quality materials and finishes through design guidelines or an ordinance update	High	0-4 years
P1	Allow for residential development in key areas as identified on the future land use plan	High	-
P2	Support construction of medium and high-density residential developments as appropriate	Medium	-
P3	Use Planned Unit Developments (PUDs) as an alternative to conventional development patterns to allow for creative development opportunities	Medium	-
G4	<i>Ensure new residential developments look and feel connected to the community</i>		
P1	Promote new residential development in areas adjacent to existing residential areas to support community cohesion and to more efficiently utilize existing municipal services	High	-
P2	Ensure street and pedestrian connections between existing and new residential neighborhoods through the use of sidewalks, trails, or streetscape standards	High	-
P3	Discourage the use of monotonous residential subdivision design to prevent Adel from feeling like a “cookie-cutter” suburb	Medium	-
P4	Encourage the preservation of existing trees in new residential areas to support neighborhood creation and to set aside land for future trail and park expansion	Medium	-
P5	Encourage multi-family residential development to retain environmental features such as trees, slopes and wetlands into the overall site plan design as amenity features	Medium	-

## LAND USE

No.	Goal / Policy / Action Item	Priority Level	Timeframe
G1	<i>Protect Adel residents through thoughtful land use decisions</i>		
A1	Adopt buffer regulations for incompatible or dissimilar land uses including buffers between low density residential and adjoining major roads	High	0-4 years
P1	Discourage new single-family residential immediately adjacent to Highway 169 and Highway 6	High	-
P2	Enforce firm boundaries for future industrial and residential land uses	Medium	-
P3	Do not approve single-family rural subdivisions in areas that fall within the Agriculture future land use category	Medium	-
G2	<i>Support efficient and sustainable growth in Adel</i>		
P1	Focus residential growth in only areas identified as residential on the future land use plan	High	-
P2	Allow medium and high-density residential development in key areas throughout the community as identified on the future land use plan	Medium	-
P3	Promote infill and housing rehabilitation of existing properties and vacant lots	High	-
P4	Provide sufficient land for employment opportunities within the planning boundary, especially along Highway 6 and Highway 169	High	-
P5	Discourage the unnecessary conversion of agricultural land to the built environment in those areas listed as Agriculture on the future land use plan	Medium	-
G3	<i>Promote the use of best practices for zoning and subdivision regulations</i>		
A1	Update the zoning and subdivision regulations to support the Future Land Use Plan, goals and policies identified with the Envision Adel 2040 Comprehensive Plan	High	0-4 years
A2	Update subdivision regulations to promote street and pedestrian circulation in new neighborhoods and between new and existing neighborhoods	Medium	0-4 years
A3	Require sidewalks on all new developments and expand sidewalk or trail connections in key areas where missing segments exist in the system	High	0-4 years
P1	Ensure new development in Adel and its 2-mile extraterritorial area is served by adequate public infrastructure and does not exceed the capacity of existing infrastructure	High	-
P2	Minimize the use of private streets serving multiple properties	Medium	-



# IMPLEMENTATION PLAN

## TRANSPORTATION & MOBILITY

No.	Goal / Policy / Action Item	Priority Level	Timeframe
G1	<i>Provide a safe and efficient transportation system</i>		
A1	Evaluate and improve as warranted pedestrian safety at key crossings along Highway 6 and Highway 169	High	0-4 years
A2	Update and adopt a street design and minimum right-of-way profiles by street classification following best practices for Complete Streets including possible streetscape design standards	High	0-4 years
P1	Properly maintain the transportation infrastructure	High	-
P2	Require new development dedicate adequate right-of-way dedication for existing and proposed roadways necessary to serve based on planned future function and conditions	High	-
P3	Require connectivity of collector and local streets, including sidewalk and trail, between residential developments and other land uses	Medium	-
P4	Require new development to construct and dedicate local, collector and arterial streets identified in the Comprehensive Plan necessary to serve the development	High	-
G2	<i>Improve connectivity in Adel</i>		
A1	Support and promote local transportation agencies in the community and explore ways to expand transit opportunities over time	Low	10+ years
A2	Consider completing an assessment of ADA compliance in Adel	Medium	5-9 years
P1	Improve connectivity for vehicles, pedestrians and bicycles with all ages in mind	Medium	-
P2	Require sidewalk or trail connections between existing and new residential neighborhoods, parks, and schools	High	-
P3	Continue to support trail connectivity among local, regional and state trail systems	High	-
P4	Discourage unwarranted cul-de-sacs in new resident developments to increase circulation in residential neighborhoods	Medium	-
G3	<i>Create a balanced transportation and circulation system</i>		
A1	Create a strategy to deal with the potential increase in truck traffic associated with data center development along Highway 6 east of town	High	0-4 years
A2	Periodically survey residents on the local transportation system including strengths, weaknesses and areas of concern or unique opportunities for innovation	Low	10+ years
P1	Evaluate proposed street expansion for its impact on car, truck, bike and pedestrian traffic and circulation	Medium	-
P2	Balance transportation system needs with potential impacts on the natural environment to minimize negative impacts on Adel's many natural features	Medium	-

## PUBLIC FACILITIES

No.	Goal / Policy / Action Item	Priority Level	Timeframe
G1	<i>Provide adequate public facilities as Adel grows</i>		
P1	Maintain adequate staffing levels and facility space as the community grows	Medium	-
P2	Respond to changing demands for services as the population increases	High	-
P3	Plan for the long-term need for a full-time fire department	Medium	-
G2	<i>Be efficient in the planning of public facility expansion</i>		
P1	Consider opportunities for joint ventures on expanding community needs such as police / fire, recreation/community center and library expansion	Medium	-
P2	Continue to seek opportunities for partnerships with the Adel-Desoto-Minburn School District for recreation facility planning	Medium	-

# IMPLEMENTATION PLAN

## COMMUNITY CHARACTER

No.	Goal / Policy / Action Item	Priority Level	Timeframe
G1	<i>Preserve the existing community character of Adel as the community grows</i>		
A1	Monitor and respond to the needs of Adel residents through the use of surveys and other programs to help focus city attention and investment	Medium	10+ years
P1	Support neighborhood preservation efforts such as housing rehabilitation program, façade improvement programs, and code enforcement efforts	Medium	-
P2	Help maintain the small-town feel of Adel through intentional residential and commercial growth that enhances and quality of life for Adel residents new and old	High	-
G2	<i>Promote a cohesive look and feel in the downtown and commercial areas of Adel</i>		
A1	Improve existing Adel streetscapes with signage, and the use of pedestrian amenities such as street furniture, sidewalks and crosswalks	High	0-4 years
A2	Update the streetscape requirements for future Adel streets to promote connectivity and safety	Medium	0-4 years
A3	Require brick accents in streetscapes throughout the community	Low	0-4 years
A4	Develop a wayfinding and signage program for entry-signage at community entrances and directional signage especially around the downtown and along the Raccoon River Valley Trail	Medium	0-4 years
P1	Maintain and preserve existing brick streets in the Historic Downtown future land use category	Medium	-
G3	<i>Make downtown Adel a destination for residents and tourists</i>		
A1	Create a marketing strategy to enhance Adel's reputation as a destination for tourism	High	0-4 years
A2	Consider developing design guidelines for downtown buildings and signage that conform with the requirements of the State Historic Preservation Office	Medium	5-9 years
P1	Support historic preservation efforts in the downtown and adjacent neighborhoods	Medium	-
P2	Support regular community events in downtown Adel	Medium	-
P3	Encourage retail, restaurant and entertainment uses on first-floor buildings in downtown Adel	High	-
G4	<i>Ensure new development enhances Adel's quality of life</i>		
A1	Require the use of physical, landscape or transitional land use buffers between incompatible uses and between residential areas and arterial streets	Medium	0-4 years
P1	Connect new residential development with adequate pedestrian and vehicle circulation	High	-
P2	Separate future industrial sites from residential areas	Medium	-
P3	Protect aesthetic and ecological natural features that surround Adel such as tree cover, stream corridor and wetlands as a source of flood protection and built-in open space	Medium	-



## ECONOMIC DEVELOPMENT

No.	Goal / Policy / Action Item	Priority Level	Timeframe
G1	<i>Prepare for and attract economic opportunities in Adel</i>		
A1	Identify a set of target industries for economic development in Adel	Medium	5-9 years
A2	Evaluate viability of a data center site in the Adel planning boundary	Medium	5-9 years
A3	Identify and work with local property owners to market shovel-ready sites in Adel	High	0-4 years
P1	Coordinate with MidAmerican Energy on any large energy-user industry growth	Medium	-
G2	<i>Protect Adel's borders</i>		
A1	Implement the annexation priorities identified in the 2018 Adel Strategic Plan	High	0-4 years
P1	Evaluate annexation petitions based on the anticipated cost and viability of infrastructure availability	High	-
P2	Expand infrastructure development in key growth areas of the community	High	-
G3	<i>Assist on-going efforts to make downtown Adel a destination for residents and visitors</i>		
P1	Continue to support façade improvements for downtown residents and businesses	Medium	-
P2	Promote retail, restaurant and entertainment uses on first-floor tenants to promote all-day activity	Medium	-
P3	Support more frequent and on-going downtown events such as the Sweet Corn Festival, farmer's market or concerts	Medium	-
G4	<i>Promote prosperity in Adel</i>		
A1	Create a housing rehabilitation fund to support maintenance and upkeep of existing single-family homes in Adel	Medium	10+ years
A2	Continue running the rental housing inspection program to help protect Adel renters and homeowners	Medium	5-9 years
A3	Analyze obstacles to opening new restaurants in Adel and explore ways in which the city can assist	Medium	0-4 years
P1	Support efforts to expand childcare access for working parents in Adel	Medium	-
P2	Support programming by the Adel Public Library to provide access to soft skills and basic technology training	Medium	-

# IMPLEMENTATION PLAN

## INFRASTRUCTURE

No.	Goal / Policy / Action Item	Priority Level	Timeframe
G1	<i>New development, including within the city's 2-mile extraterritorial subdivision review area, should construct public infrastructure adequate to serve the development</i>		
P1	New development shall be responsible for the construction and extension of all public infrastructure and easements necessary to serve the development including streets, sewers, and watermain	High	-
P2	New development shall be served by at least one paved public street of adequate design and capacity	High	-
P3	For single-family subdivisions within the Rural Residential future land use category, require annexation and connection to city sewer or construction of a dry sewer system if sewer service is not yet available	High	-
P4	Approve septic systems only in rare circumstances where sewer service will not be available in the area	High	-
P5	Residential subdivisions in the Low Density Residential future land use category should annex and connect to the sanitary sewer	High	-

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