



# Johnson County

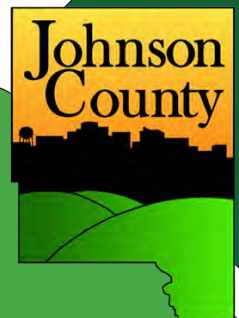
## 2018 COMPREHENSIVE PLAN

### VOLUME 1: PLAN AND MAP

Sustaining Success Through 2028



# CONFLUENCE



Adopted: May 17, 2018; Amended: November 14, 2019; May 5, 2022; April 11, 2024

# Acknowledgments

Special thanks to the residents of Johnson County, Iowa, who participated in the comprehensive planning process through public meetings, surveys, and hearings. This plan could not have been created without your interest and dedication.

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*\*No longer serving as a board/commission/staff member at the time of plan adoption, but was part of the comprehensive plan process.*

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RESOLUTION No. 05-17-18-04

**RESOLUTION APPROVING THE JOHNSON COUNTY 2018 COMPREHENSIVE PLAN, AN UPDATE TO THE EXISTING COMPREHENSIVE PLAN KNOWN AS THE 2008 LAND USE PLAN.**

WHEREAS, pursuant to Iowa Code Section 335.5 (2017), county zoning regulations must be made in accordance with a comprehensive plan; and

WHEREAS, the Board of Supervisors adopted the current comprehensive plan – known as the 2008 Land Use Plan – on May 15, 2008; and

WHEREAS, the Board of Supervisors finds that it is in the public interest to update said comprehensive plan.

WHEREAS, the County Planning and Zoning Commission having studied said plan recommends that the Johnson County 2018 Comprehensive Plan dated January 29, 2018 be approved with certain changes; and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF JOHNSON COUNTY, IOWA, that the Johnson County 2018 Comprehensive Plan, dated May 17, 2018 and included in the online agenda packet for the meeting of the Board of Supervisors held on May 17, 2018, copies of which can be obtained at the Johnson County Planning, Development and Sustainability Office, the Johnson County Auditor’s Office, or at www.johnson-county.com, is hereby adopted.

BE IT FURTHER RESOLVED that the Johnson County 2018 Comprehensive Plan dated May 17, 2018 (hereafter, the “Johnson County 2018 Comprehensive Plan”) shall replace all previously adopted comprehensive plans, including but not limited to the 2008 Land Use Plan and all subsequent amendments thereto; and

BE IT FURTHER RESOLVED that the Johnson County 2018 Comprehensive Plan shall become effective upon adoption of this Resolution.

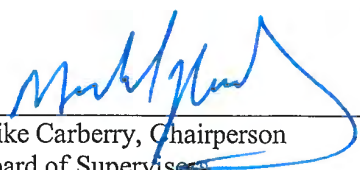
BE IT FURTHER RESOLVED that those complete development applications submitted to the Zoning Administrator prior to adoption of the Johnson County 2018 Comprehensive Plan shall be reviewed under the 2008 Land Use Plan.

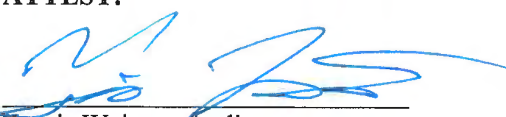
It was moved by Sullivan and seconded by Friese the Resolution be adopted this 17 day of May, 2018.

Roll Call

	<u>AYES</u>	<u>NAYS</u>	<u>ABSENT</u>	<u>ABSTAIN</u>
Carberry	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friese	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Green-Douglass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rettig	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sullivan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ATTEST:

  
Mike Carberry, Chairperson  
Board of Supervisors

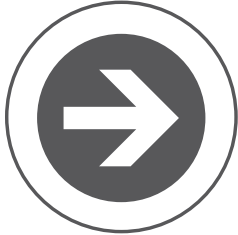
  
Travis Weipert, Auditor  
Johnson County, Iowa



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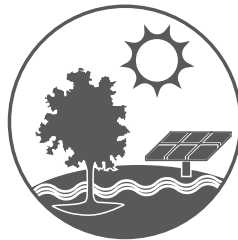
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# WELCOME & PLAN OVERVIEW

Welcome to Johnson County's 2018 Comprehensive Plan: Sustaining Success Through 2028. Creating the plan involved a 18-month process that engaged residents, stakeholders, and leaders through the assistance of staff and consultants. As the plan's title indicates, it will help guide the county's future for the next 10 years.

Previously, Johnson County adopted a land use plan in 1998 and updated it in 2008—plans that helped guide the physical development of the county's unincorporated areas. The **2018 comprehensive plan is a more all-encompassing document**, considering not just land use but also sustainability, local economy including agriculture, and infrastructure and amenities—and their interconnections to quality of life.

**Johnson County is the second fastest-growing county in Iowa** with consistent double-digit growth every decade over the past 100 years. The comprehensive plan provides a basis for balancing this growth with preservation of agricultural and environmentally sensitive areas.

The **Plan-at-a-Glance** and **Goals Overview** that follow this overview will help orient you to using this plan. The Introduction (Chapter 1), as well as each chapter, details **key issues** that affect what the County must consider and address for a successful future. Notably, these issues include land preservation, development areas, fringe area development, farming and agricultural exemption, and tourism in the unincorporated areas. In addition, this new plan follows the guidance of the **Iowa Smart Planning Act** in order to make the plan truly comprehensive in principle and in action. Information in the Appendices (Volume 2) provide a deeper look at county demographics and resources and the process that brought this plan to fruition.

All priorities, goals, strategies, and action steps were developed based on public input, comments from the Comprehensive Plan Committee, and feedback from the Board of Supervisors.

The success of the plan will include making updates to the **Johnson County Unified Development Ordinance**—changes that will involve more opportunities for public input—and initiating or expanding **collaboration, projects, programs, or services**. County staff will periodically report on progress, and this plan can be updated in the future.

Thank you for your interest in the Johnson County 2018 Comprehensive Plan and the goals, strategies, and action steps of Sustaining Success Through 2028!

# **PLAN-AT-A-GLANCE**

The Iowa Smart Planning Act prescribes the inclusion of various elements in any comprehensive plan. For this plan, those elements have been translated into individual chapters and are organized using the following format:

## **CHAPTER 1: INTRODUCTION**

The introduction outlines demographics, housing, and socioeconomics; identifies past trends; and makes predictions about future growth. Population projections are useful tools for planning; however, these provide only informed estimates, and projections may change due to unforeseen factors.

## **CHAPTER 2: SUSTAINABILITY**

Chapter 2 highlights the sustainability initiatives currently implemented in Johnson County and new practices to be encouraged. Environmental concerns (flooding, drought, soil and water quality, and natural resource protection) are included in this discussion.

## **CHAPTER 3: LOCAL ECONOMY**

Chapter 3 focuses on the strategies to ensure that Johnson County develops in an economically sustainable manner. Healthcare and education are two of the top employment sectors in Johnson County with the University of Iowa, UI Health Care, and the regional Veterans Health Administration. Growth must be matched with the county's ability to accommodate new economic opportunities while preserving the existing agricultural economy that is so vital to rural Johnson County. Local food production and distribution issues and challenges are included in this discussion.

## **CHAPTER 4: INFRASTRUCTURE & AMENITIES**

Chapter 4 focuses on the accessibility to services (i.e. roads and public safety), a well-connected transportation network including trails and sidewalks, parks and recreational amenities, and well and wastewater facilities. Alternative transportation modes, existing and planned, are discussed.

## **CHAPTER 5: LAND USE**

Chapter 5 guides future residential, commercial, and industrial activity by informing development and zoning decisions within the county's jurisdiction, that is, the areas outside the incorporated cities. This section contains the Future Land Use Map (page 111) and identifies the ideal strategy to balance growth with the protection of the agricultural and environmental integrity of Johnson County. A high level of cooperation among local jurisdictions is key to the success of this approach.

## **CHAPTER 6: IMPLEMENTATION**

This chapter summarizes into one table the various action steps to achieve the plan goals of each chapter. The implementation table outlines the responsible departments or parties, and sets a general timeframe to achieve each task.

## **APPENDICES A & B (VOLUME 2)**

Appendix A provides a detailed profile of Johnson County. Appendix B describes the public participation process and includes a summary of feedback and all survey responses.

# GOALS OVERVIEW

## Sustainability

- SUST 1:** Support and implement sustainability strategies that preserve natural resources.
- SUST 2:** Develop and/or coordinate with local and regional hazard mitigation, resiliency, and climate change planning.
- SUST 3:** Support affordable and equitable access to quality housing.
- SUST 4:** Support and advance energy efficiency, resource conservation, and renewable energy programs, policies, and uses.
- SUST 5:** Prioritize green building and sustainable development practices for existing and future residential, commercial, and industrial development.
- SUST 6:** Remain a leader in green facilities, operations, and infrastructure.

## Local Economy

- ECON 1:** Foster a diverse and resilient local economy.
- ECON 2:** Ensure that new and expanding commercial and industrial uses follow the county’s adopted Economic Development Plan.
- ECON 3:** Encourage sustainable agricultural activities.
- ECON 4:** Provide opportunities for sustainable commercial and industrial activities that enhance livability and are compatible with surrounding land uses.

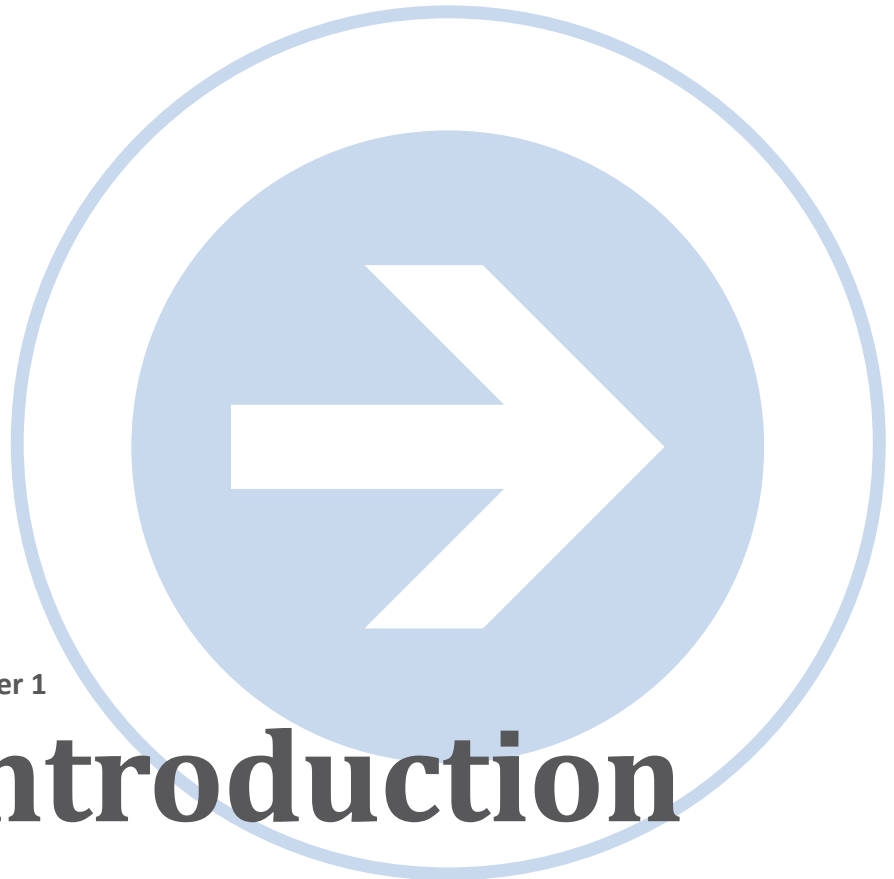
## Infrastructure & Amenities

- INF 1:** Develop well-connected recreational parks, public open/natural spaces, and trails throughout the county.
- INF 2:** Utilize existing infrastructure and adopt green infrastructure practices.
- INF 3:** Make transportation, land use, and infrastructure decisions that encourage a reduction in auto-dependent travel.
- INF 4:** Support environmental, cultural, and historic elements in the planning and design of future infrastructure.
- INF 5:** Support amenities that enhance livability and quality of life.

## Land Use, Map & Tools

- LND 1:** Promote and protect sustainable agricultural land uses in rural Johnson County.
- LND 2:** Direct future residential development based on location and then site-specific criteria outlined in the Future Land Use Development Guidelines.
- LND 3:** Direct future commercial and industrial development based on location and then site-specific criteria.
- LND 4:** Coordinate land use planning with and between local governments to achieve mutually beneficial development policies.
- LND 5:** Continue to protect and improve Johnson County’s natural resources: land, water, and air.

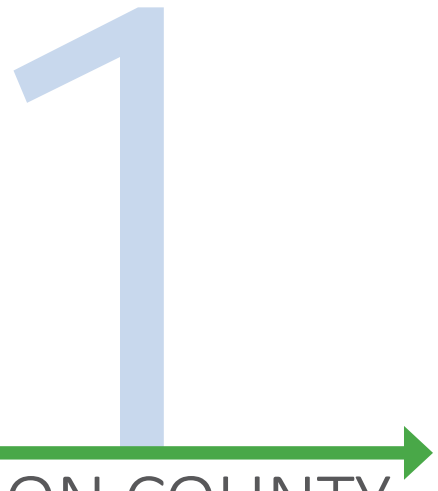
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Chapter 1

# Introduction

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# Introduction

## JOHNSON COUNTY

### [section 1.1]

The *Johnson County 2018 Comprehensive Plan: Sustaining Success Through 2028* was developed to guide the growth and development of Johnson County in a unified way. The plan addresses land use, housing, economic development, natural resources, sustainability, quality of life, and alternative and renewable energy—and their interconnections. Johnson County is the second-fastest growing county in Iowa with consistent double-digit growth every decade over the past 100 years. The plan provides a basis for balancing this growth with preservation of agricultural and environmentally sensitive areas.

## WHY A COMPREHENSIVE PLAN?

Johnson County adopted a land use plan in 1998 and updated that plan ten years later in 2008. The land use plan was a collective best effort to support growth and, at the same time, preserve and enhance the land and human and other natural resources that make Johnson County a desirable place to live.

While the 1998/2008 plans proved useful in guiding the physical development of the county’s unincorporated areas, this comprehensive plan is a more all-encompassing document. It considers the impacts of such elements as economic development, agriculture, and sustainability, as well as how to continue to provide the public a high quality of life through recreational and other amenities.

Johnson County especially needs a comprehensive plan as its rural and urban populations continue to increase. As cities in the county grow, the unincorporated areas of Johnson County experience increased pressure for expanded residential development. This comprehensive plan will build upon the mission of the 2008 Land Use Plan to support limited rural residential growth and in a way that preserves the agricultural and environmentally sensitive areas of Johnson County.

A comprehensive plan can also help the County secure grants or other funding that requires the existence of a plan as a condition of participation.





## THE PURPOSE OF COMPREHENSIVE PLANNING

This comprehensive plan was created through an open process that included residents’ leadership and engagement along with the participation of Johnson County leaders and stakeholders. The plan creates a framework to support the County’s goals, strategies, and action steps formulated through this process. The primary goal of any comprehensive plan is to ensure the well-being of Johnson County residents, balance growth and preservation, guide how elements affect one another, and provide the basis for revised or new ordinances.

The legal basis for county comprehensive planning comes directly from the establishment of zoning and subdivision regulations in Iowa Code. Iowa Code section 335.5 requires that any county that wishes to adopt local zoning regulation must base zoning changes on a comprehensive plan:

*The regulations shall be made in accordance with a comprehensive plan and designed to preserve the availability of agricultural land; to consider the protection of soil from wind and water erosion; to encourage efficient urban development patterns; to lessen congestion in the street or highway; to secure safety from fire, flood, panic, and other dangers; to protect health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to promote the conservation of energy resources; to promote reasonable access to solar energy; and to facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirements. (Iowa Code, 335.5)*



[section 1.2]

# IOWA SMART PLANNING PRINCIPLES & ELEMENTS

In 2010, the Iowa State Legislature passed the Iowa Smart Planning Act in response to the 2008 natural disasters in Iowa. The act encourages local governments to consider ten best-practice Smart Planning Principles when developing comprehensive plans for their communities.

## Smart Planning Principles:

- Collaboration
- Efficiency, Transparency, and Consistency
- Occupational Diversity
- Revitalization
- Housing Diversity
- Community Character
- Natural Resources
- Agricultural Protection
- Sustainable Design
- Transportation Diversity



The Smart Planning Act also includes thirteen elements and topics that should be considered when developing a plan. The Johnson County comprehensive planning process took these principles into consideration, and each chapter addresses one or more of the prescribed planning elements outlined below. Additional information on the Iowa Smart Planning Act can be found Appendix A (Volume 2) of this plan.

## COMPREHENSIVE PLAN ELEMENTS:

- Public Participation
- Issues and Opportunities
- Land Use
- Housing
- Public Infrastructure and Utilities
- Transportation
- Economic Development
- Agricultural and Natural Resources
- Community Facilities
- Community Character
- Hazards
- Intergovernmental Collaboration
- Implementation

All of these principles and elements were considered and incorporated into the development of this comprehensive plan. However, the issue of housing diversity in the unincorporated areas, especially in regard to affordability, proved challenging. Most people choose to live in rural areas by choice or as a result of their occupation, such as farming. When siting affordable housing, it should be focused on locating units near services and employment centers within a city.



[section 1.3]

# COMPREHENSIVE PLAN PROCESS

This comprehensive plan was developed by a project team that included the Board of Supervisors, Johnson County staff, JEO Consulting Group and Confluence, and a 21-person Comprehensive Plan Committee (CPC). Community members applied to be a part of the CPC in 2016 and were appointed by the Board of Supervisors. The plan was created during an 18-month process that included four major phases:

## Profile

The process started with research and data collection to establish a “snapshot” of the past and present demographic profile and trends in Johnson County. Further analysis provided the basis for developing growth projections for future land use demands.

## Public Participation including Envision

The second step involved extensive public input to better identify the general issues facing the county. The consultant team conducted interviews with nonplanning staff, the Board of Supervisors, and other key stakeholders. They also conducted several focus group discussions and, with staff, hosted five public input sessions to better understand the strengths and weaknesses of Johnson County and the vision of community members and stakeholders. These sessions helped inform the practical guidelines that were developed in the Priorities and Goals section for each chapter for improving existing conditions and managing future growth.

## Priorities and Goals

The plan began to take shape with the collected data and collaborative vision generated through the Envision process. Goals and strategies were drafted to identify, assess, and create actions and policies regarding growth, land use, economic development, amenities, infrastructure, and sustainability needs. The finalized vision and recommendations were created, reviewed, and revised through multiple meetings with the CPC members and the Board of Supervisors. The Planning and Zoning Commission also weighed in on the goals and strategies during the public hearing process that took place between February and April 2018.

## Implementation

The final phase created step-by-step guidelines for implementation—a broad range of actions, tools, policies, and programs required to realize the plan goals and recommendations. Implementation of the development policies contained within the comprehensive plan depended ultimately upon the adoption of the plan by the Board of Supervisors. After plan adoption, achieving the goals depends on the continued leadership of both current and future elected and appointed officials.

PROFILE

PRIORITIES

GOALS

IMPLEMENTATION



[section 1.4]

# PUBLIC PARTICIPATION

The JEO/Confluence consulting team conducted focus group meetings on a variety of topics, held personal interviews with key stakeholders, and held well-attended open house-style public input sessions, which averaged 40 attendees. Residents of both the unincorporated areas and cities participated as part of the Comprehensive Plan Committee (CPC). The complete list of CPC members can be found in the preface of this plan. An overview of all feedback can be found in Appendix B in Volume 2. Early in the plan process, JEO/Confluence established a website, [www.jocoplan.com](http://www.jocoplan.com), which the consulting staff and PDS updated throughout the plan process. Media outreach and publicity efforts were led by Johnson County and included these tools and efforts:

- Postcard mailing and posters
- News releases/social media
- Media/radio interviews
- Guest column in multiple newspapers
- Direct email alerts and through others' listservs

## COMPREHENSIVE PLAN COMMITTEE

The 21-person Comprehensive Plan Committee (CPC) provided insight into the development of all parts of the comprehensive plan. With expertise in different areas, these CPC members from across Johnson County participated in a total of eight committee meetings throughout the 16-month process. A detailed list of meetings and summaries can be found in Appendix B of this plan.

## PLANNING & ZONING COMMISSION

The Johnson County Planning and Zoning Commission held four meetings, including a public hearing, in early 2018 to hear input on, discuss, and provide a recommendation for the comprehensive plan. On April 9, 2018, the Commission voted 5-0 to recommend approval of the plan subject to 24 changes, including a change to the Future Land Use Map (FLUM). A full list of the Commission's changes, including their recommended FLUM, can be viewed in Appendix B of this plan.

## JOHNSON COUNTY BOARD OF SUPERVISORS

The Johnson County Board of Supervisors took an active role in creating the Comprehensive Plan. A total of 13 meetings were held, including 10 work sessions, one listening post, and two public hearings. A detailed list of meetings can be found in Appendix B of this plan.



Members of the public talking during the Iowa City Public Library input session in March 2017.



Chris Shires, Confluence, speaks with a participant at Kent Park in February 2017.



## PUBLIC INPUT SESSIONS

The JEO/Confluence consultant team and county staff conducted five open house–style meetings during February/March 2017, including four evening and one daytime meetings. The consultant team and Johnson County staff met with the public at several interactive stations on land use and housing; trails and roads; economic opportunities; agriculture; land and water conservation; and sustainability. Participants shared written comments on poster boards, indicated areas of interest or concern on maps of the county, and voted informally on different items by placing colored dots on visual idea boards. Participants were also provided a survey (see Appendix B) they could complete as they visited the interactive stations or online after the event had concluded. This survey contained pictures of all the maps and informational boards displayed at the Public Input Session and was also available through the project’s website.

- **February 7, 2017, 6 to 8 p.m.**, Lone Tree Community Center
- **February 16, 2017, 6 to 8 p.m.**, Kent Park Education Center
- **February 22, 2017, 6 to 8 p.m.**, Solon High School
- **February 28, 2017, 11 a.m. to 1 p.m.**, Stringtown Produce Barn
- **March 6, 2017, 6 to 8 p.m.**, Iowa City Public Library



*Nate Mueller, Assistant Director of Planning, Development, and Sustainability, talks with participants at the input session held at Kent Park in February 2017.*



*Jeff Ray, JEO Consulting Group, talks with participants at the input session held at Kent Park in February 2017.*



*Kate Giannini, Soil and Water Conservation Coordinator, talks with a participant at the input session held at the Iowa City Public Library in March 2017.*



*Five open houses were held to kick off the comprehensive plan process. The first, shown here, was held in Lone Tree in February 2017.*



## FOCUS GROUP MEETINGS

The JEO/Confluence consultant team facilitated seven focus group meetings from February 16 to March 6, 2017. The seven groups included the Johnson County Food Policy Council and other local food activists; the Johnson County Sustainability Working Group; local builders, developers, and realtors; the Johnson County Farm Bureau; conservation and environmental professionals; agritourism business operators; and Amish business owners. These groups were identified by the consultant team as important groups to interview through preliminary discussions with Johnson County staff and elected officials. Community members were invited to participate related to their direct involvement in each of these sectors.

## ONLINE PARTICIPATION & PUBLIC COMMENT PERIOD

Online participation was used to engage residents who may not have had the opportunity to attend one of the public forums. Utilizing online survey tools, such as Survey Monkey and Google Forms, additional public input was solicited.

During February and March 2017, 79 individuals provided their thoughts on the future of Johnson County via Survey Monkey. Of these participants, nearly half did not attend one of the five public input session meetings.

Additionally, a public comment period from November 28 through December 15, 2017, allowed the public to provide feedback on a draft of the plan. Input was provided during a public open house held on December 5, 2017, through an online survey, and via email to the plan's email address. Seventeen people filled out the survey.

All survey responses are included in Appendix B of Volume 2 of this plan.

## INTERVIEWS

The Planning, Development and Sustainability Department staff worked with the consultant team to identify key stakeholders to interview for the comprehensive plan because of their expertise. The following individuals and groups participated in interviews as part of the Envision process:

- **Rod Sullivan**, Johnson County Board of Supervisors
- **Lisa Green-Douglass**, Johnson County Board of Supervisors
- **Kurt Friese**, Johnson County Board of Supervisors
- **Mike Carberry**, Johnson County Board of Supervisors
- **Janelle Rettig**, Johnson County Board of Supervisors
- **Greg Parker**, County Engineer for Johnson County Secondary Roads Department
- **Mark Ogden**, Johnson County Farm Bureau President, and **Jerry Anderson**, Regional Manager for Iowa Farm Bureau Federation
- **Tricia Kitzmann**, Interim Director, and **James Lacina**, Environmental Health Coordinator, Johnson County Public Health
- **Mark Nolte**, Executive Director for Iowa City Area Development Group
- **Tracey Achenbach**, Executive Director for Housing Trust Fund of Johnson County
- **Larry Gullett**, Director for Johnson County Conservation Department



[section 1.5]

# KEY ISSUES

This section briefly reviews five key topics that are referenced throughout the comprehensive plan.

## AGRICULTURAL LAND & NATURAL AREAS PRESERVATION

As a rapidly and consistently growing county, Johnson County experiences non-agricultural development pressures that many Iowa counties do not experience. While the majority of that growth is happening within the cities, the growth also presents challenges to comprehensive planning for the unincorporated areas. Land preservation is a prominent feature throughout this plan—from the guidance in State Code section 335.5 to preserve the availability of agricultural land, to Johnson County’s ordinances directed at sensitive area protection and stormwater management. The need to balance the preservation of agriculturally and environmentally valuable areas with the growth pressures of many thriving communities impacts all areas of this plan.

## DEVELOPMENT AREAS

Johnson County has been proactive in preserving rural agricultural land from the pressures of urban residential sprawl. One successful strategy in Johnson County has been establishing a clearly delineated development area to which to direct new rural housing. For Johnson County, this area was in the North Corridor, which was identified for residential growth as early as 1979, but initially lacked distinct boundaries or an official policy-based description.

By 1982, a plan was written to limit the impacts of nonfarm development on agriculture, calling for non-agricultural growth to be located in the North Corridor. The development area was then generally defined as the area between Highway 1 on the east and Highway 965 on the west, extending north from the city limits of Iowa City and Coralville, and east of North Liberty to the Linn County border and including all or parts of Big Grove, Jefferson, Newport, and Penn townships (map in Appendix A).

Subsequently, in the 1998 and 2008 Land Use Plans, the area was formalized into what became known as the North Corridor Development Area, or NCDA. The NCDA was broken into two phases, given defined boundaries, and was formalized into the growth area policies of those plans. The Board of Supervisors has never implemented Phase II of the NCDA as originally envisioned in 1998; however, from 1998 to the time of this comprehensive plan publication, the North Corridor has been the most rapidly growing portion of unincorporated Johnson County based on both population growth and available building permit data.

Since the NCDA was formalized in 1998, some NCDA residents and elected officials have been concerned that existing infrastructure and environmentally sensitive areas are suffering in the face of continued development pressure. The comprehensive planning process carefully considered whether other parts of the county outside the NCDA were appropriate for non-agricultural growth. The Future Land Use Map included on page 111 in Chapter 5 identifies the growth areas for this plan; while there is overlap with the preexisting NCDA, those areas as they were defined in the 2008 Land Use Plan are not included as part of the Future Land Use Map.

## FRINGE AREA DEVELOPMENT

Many issues related to planning and development are regional in nature and cross municipal boundaries. Iowa Code grants "extraterritorial jurisdiction" to incorporated cities, in which the



cities have the authority to review all subdivisions within 2 miles of city limits. In these "fringe areas," Johnson County has entered into cooperative agreements with individual cities to more clearly address the mutual concerns that unincorporated development near a municipal boundary can present. These agreements are typically administered through a 28E Agreement between the affected city and the County, and generally include the majority of the two-mile extraterritorial limit.

Several goals of this plan highlight the need to review fringe area agreements, both to protect the designated immediate growth areas of the individual cities, but also to ensure that nongrowth areas can be developed or preserved in accordance with County priorities. As of 2017, many of the existing 28E agreements have expired or are nearing the sunset of their agreed-upon term. Additionally, several of Johnson County's smaller cities have recently adopted updated comprehensive plans, which often update projected growth areas and trigger a need to review existing agreements. See Appendix A to view agreement boundaries in effect at the time this plan was adopted, as well as the tentative schedule for reviewing and potentially updating the various agreements.

## **FARMING & THE AGRICULTURAL EXEMPTION**

As of early 2018, the current definition of a farm in Johnson County is a tract of land that is agriculturally zoned and, "no less than 40 contiguous acres, or a 1/4 of a 1/4 of a Section, as legally described and recorded, while used for agricultural purposes." Per the Iowa State Code (chapter 335, section 335.2), no zoning regulation or ordinance shall be applied "to land, farm houses, farm barns, farm outbuildings or other buildings or structures which are primarily adapted, by reason of nature and area, for use for agricultural purposes, while so used" in a particular tract of land. This exemption means that the property is exempt from all local zoning and building permit regulations with the exception of Floodplain Regulations (see Code of Iowa 331.304.3b). At the time this comprehensive plan was adopted, a farmer operating on a tract of land less than 40 acres that is both used and zoned agriculturally must meet all zoning and building permit requirements to construct a house and other farm infrastructure. Farmers on more than 40 acres are not subject to zoning, subdivision, and building regulations.

There is a strong desire from many individuals and groups in the county to change the interpretation of the agricultural exemption to focus more on use than on farm size. There are concerns that a broadly interpreted exemption could lead to unchecked residential sprawl, as well as the expansion of more intense agricultural uses on to smaller parcels, potentially closer to residential areas.

## **RURAL & AGRICULTURAL TOURISM**

Rural and agricultural tourism, or agritourism, allows farm owners or operators to generate supplemental income by bringing visitors to a property to experience a working farm or other rural agricultural use. Agritourism can include farm stands or shops, self-pick orchards, farm stays, tours, on-farm classes, fairs, festivals, orchards, pumpkin patches, corn mazes, Christmas tree farms, wineries, youth camps, hunting or fishing, and more. Typically the intensity of these uses are more commercial in nature than traditional agriculture, and can present planning challenges by increasing traffic in areas not traditionally accustomed to accommodate it. Johnson County currently has several agritourism businesses operating under home business or other commercial permits, and serving local residents and visitors alike. There has been increased interest from other property owners whose operations are in parts of the county where current regulations do not support commercial or other high-intensity uses. The desire to expand Johnson County's tourism industry by capitalizing on rural properties and uses requires careful consideration in regulating those uses to ensure that the additional strain on rural infrastructure can be addressed in a way that adequately protects the interests of surrounding land owners and the health and safety of the general public.





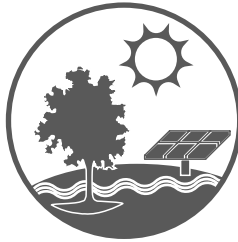
[section 1.6]

## DEMOGRAPHIC PROFILE

Prior to developing a comprehensive plan, it is important to understand where the county is today and where it has been. Developing a demographic profile helps to make future projections and allows better planning. At the beginning of each chapter, there is a profile about that specific topic. A full demographic profile, including population projections, is contained in Appendix A. The following is a summary of that profile:

- Johnson County’s population is growing at the second-highest rate in the state and has experienced growth of 10% or more each decade since 1920.
- The population grew by 10.2% during the five-year period between 2010 and 2015, reaching 144,215 in 2015.
- In 2010, 16.4% (21,438) of the total county population lived in the unincorporated areas.
- The population in the unincorporated portion of the county has grown more modestly (63.5% growth in 1970–2010) than the incorporated areas have (85.5% growth in 1970–2010).
- The unincorporated area has, in general, an older population than the incorporated areas. Using 2015 American Community Survey data, 57.5% of the unincorporated population was born between 1940 and 1980, while 38% of the total county population falls into this age group.
- 94.8% of the total Johnson County population has a high school diploma or higher degree (Iowa: 91.5%) and 51.4% of the population has a Bachelor’s degree or higher (Iowa: 26.7%).
- Johnson County’s median household income of \$55,700 is slightly higher than the state average of \$53,183.
- 32.4% of Johnson County households make less than \$35,000 annually, while 24.9% make more than \$100,000 annually.
- Three different population projections estimate that Johnson County will continue to grow consistently, reaching between 200,000 and 220,000 people by 2040.

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Chapter 2

# Sustainability

- 2.1 Profile ..... 28
- 2.2 Priorities: Sustainability. .... 40
- 2.3 Goals, Strategies & Action Steps: Sustainability ..... 41
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# Sustainability

# 2

## JOHNSON COUNTY

Johnson County is committed to sustainable development practices and policies. The County has a full-time Sustainability Coordinator, a Soil and Water Conservation Coordinator, and a Local Foods Coordinator. All three positions were created to work internally with other departments, as well as externally with outside agencies, to integrate sustainability into the policies and work environment of Johnson County.

The Johnson County Comprehensive Plan follows the useful and common definition of “*sustainable development*” that was stated in the “Report of the World Commission on Environment and Development: Our Common Future” (p. 41, 1987). Often called the Brundtland Report, after the report’s chairperson, it provides the following definition:

***Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.***

### [section 2.1]

## PROFILE

In 2015, the former Planning and Zoning Department was renamed the Planning, Development and Sustainability Department to reflect its commitment to integrating sustainable practices into county planning. That same year, Johnson County created the Sustainability Working Group of Johnson County to enable the county, cities, school districts, University of Iowa, and Kirkwood Community College to share ideas and collaborate on sustainability initiatives. Roadside Vegetation, part of the Secondary Roads Department, as well as the Johnson County Conservation Board, have programs and policies that also affect sustainability in the county.



An overview of County sustainability-related codes, policies, programs, and concerns are provided for the following categories:

***Sustainability Policies and Programs (external facing)***

- Sensitive Areas, Stormwater Management, and Soil Erosion Control
- Sustainable Land Use Techniques
- Watersheds and Flood Management
- Green Buildings and Renewable Energies
- Local Food Production
- Sustainability Grants Program for Nonprofit Organizations
- Public Parks and Environmentally Sensitive Areas (ESAs)

***Special Environmental Concerns***

- Flooding
- Drought
- Soil and Water Quality
- Invasive Species

***Sustainability for County Operations and Facilities***

- Green Buildings and Energy Efficiency
- Renewable Energy
- Stormwater Management
- Climate Change Response
- Resource Reduction, Reuse, and Recycling
- Employee Engagement and Education
- Transportation and Roads

**SUSTAINABILITY POLICIES & PROGRAMS**

**Sensitive Areas Ordinance**

Within the Johnson County Unified Development Ordinance (UDO), the Sensitive Areas Ordinance in effect at the time this comprehensive plan was published works to “...ensure that the development of land protects and preserves areas defined as ‘sensitive.’” The ordinance defines what areas are considered environmentally sensitive:

- Critical Wildlife Habitat
- Floodplain and Floodway
- Historic Properties
- Prairies and Prairie Remnants
- Savanna and Savanna Remnant
- Stream Corridors
- Unstable Landforms
- Wetlands
- Woodlands

**Stormwater Management**

Stormwater can pose a risk to Johnson County's water resources. Pollutants such as sediment, nitrates, and bacteria accumulate on impervious surfaces between rainfalls. Then rains wash these pollutants into streams, rivers, and lakes. These pollutants negatively impact water quality. Excessive stormwater can also adversely affect infrastructure, weakening bridges and damaging environmentally sensitive areas.



*LEFT: An example of permeable pavement, which helps reduce stormwater runoff.  
RIGHT: Cover crops can help reduce soil erosion and contribute to soil health.*

### ***Stormwater Management Ordinance***

In 2011, the Johnson County Board of Supervisors adopted an updated Stormwater Ordinance to ensure more sustainable management standards and designs for stormwater runoff. All subdivisions, commercial and industrial development, conditional use permits on agriculturally zoned parcels, and manufactured housing park development are required to comply with the county's Stormwater Management regulations. Johnson County requires the management of water quality and quantity through practices that allow more rainfall to infiltrate into the ground or be stored for other purposes (e.g. water retention, irrigation). The County follows the unified sizing criteria as outlined in the Iowa Stormwater Management Manual.

### ***Education and Resources***

Residents can access stormwater resources online at [www.johnson-county.com/stormwater](http://www.johnson-county.com/stormwater). The site includes a link to Iowa Flood Center real-time flooding and water quality data for the area. There are also links to maps of the watersheds of Johnson County, an application for a soil test, and a request form for a rainwater audit from the Johnson County Soil and Water Conservation District.

### **Soil Erosion Control**

Soil erosion and slope preservation are protected features in the Johnson County Unified Development Ordinance. Per the code relating to stormwater runoff, the stormwater system guidelines prohibit development-caused stormwater discharges that erode natural channels or steep slopes. Any design must be approved by a licensed engineer. Certain soils are also protected under the Sensitive Areas Ordinance.

The Johnson County Soil and Water Conservation District provides several rural and urban services. Landowners can request a site visit from a conservationist and receive help applying for state and federal cost-share and incentive programs. The district also works on several projects related to watershed planning and management.



## Sustainable Land Use Techniques

To support sustainable development, Johnson County has several land use planning techniques and regulations within its Unified Development Ordinance.

### *Rural Conservation Zoning*

The Rural Conservation Zoning District exists to “encourage the protection and conservation of open space, as well as agricultural, environmental, and historically significant features by grouping or clustering residential lots on land suited for development, and preserving a minimum 50% of the land to be subdivided for open space.” When used and cited appropriately, Rural Conservation zoning can accommodate growing demand for housing by encouraging clustered, higher density residential development, while preserving environmental features and agricultural land.

### *Density Bonuses*

Density bonuses allow developers to build at a higher density than the legal maximum density in exchange for certain amenities or reduced regulations. This helps builders manage costs, and the county benefits because more land remains as perpetual open space. Johnson County allows for density bonuses if no less than fifty percent (50%) of the residential development is permanently designated as open space or limited use agriculture.

## Watershed Management & Flood Mitigation

### *Watershed Management*

In 2016, the Board of Supervisors began to actively engage with the Clear Creek Watershed Coalition and participate in the Iowa Watershed Approach. This program includes eight other watersheds within Iowa. The coalition has received nearly \$4.5 million, including funds to construct ponds, wetlands, terraces, and other features that reduce water quantity and improve water quality. In 2017, the Board of Supervisors became members of the English River and Lower Cedar Watershed Management Authorities.

### *Floodplain Management*

The floodplain management ordinance helps prevent property loss or damage for residents and enhances stream health. If a tract of land to be subdivided includes floodplain areas, they should be included within outlots or preserved as open space to utilize natural green infrastructure for flood control. See Environmental Concerns later in this chapter for more discussion on flooding.

## Green Buildings & Renewable Energy

### *Green Building Certification Program*

In addition to owning Leadership in Energy and Environmental Design (LEED) certified buildings, Johnson County offers a program for recognizing builders or developers who practice and integrate sustainable building and development techniques for single-family homes in the unincorporated areas. Program information is available online at [www.johnson-county.com/greenbuild](http://www.johnson-county.com/greenbuild).

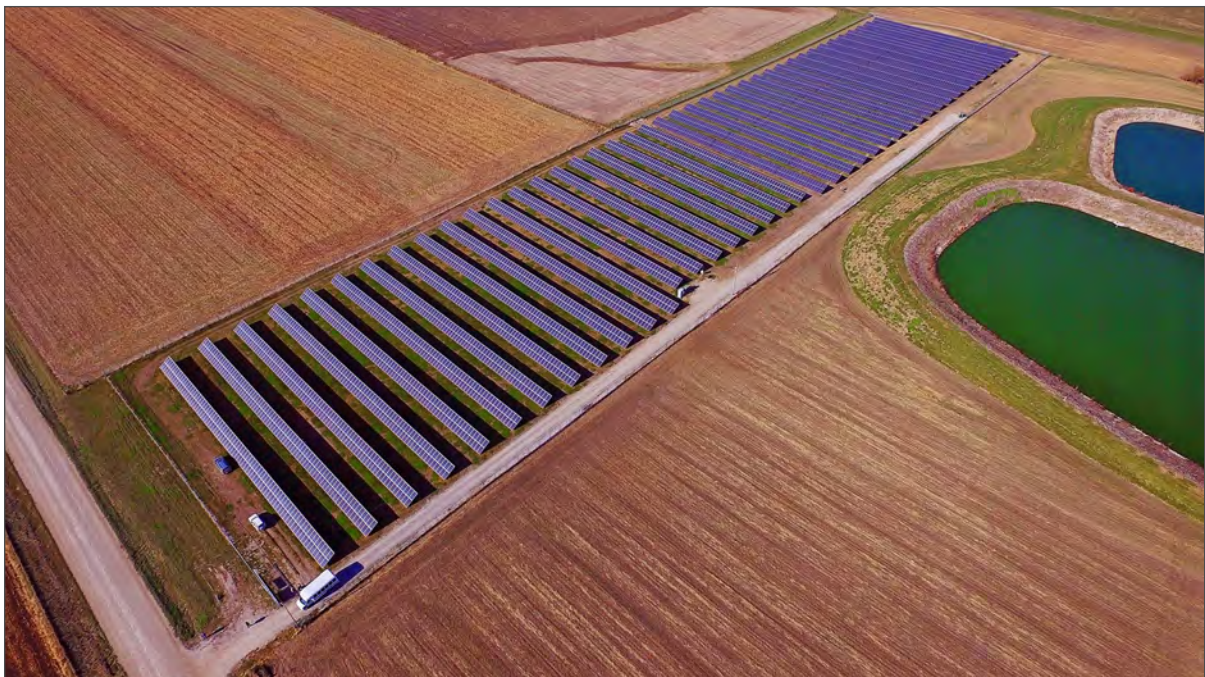


### ***Small Wind Farm Innovation Zone***

The Iowa Utilities Board has recognized the unincorporated areas of Johnson County as a Small Wind Farm Innovation Zone. This recognition allows unincorporated Johnson County property owners the ability to apply for renewable energy tax credits and take advantage of an expedited application process for connecting wind energy to the local electric utility grid.

### ***Solar Permitting***

From 2015 to 2017, the county improved the process for solar array permitting. Checklists and other guidance are now provided online. An ordinance amendment in 2017 ensured that solar is allowed as an accessory use in all zoning districts. In addition, Building Services streamlined the application process to three days for approval of a non-utility scale installation. The County also streamlined the utility-scale inspection process, and in 2017 earned SolSmart Gold for its solar improvement efforts. Looking forward, Johnson County intends to continue being a leader in supporting the development of renewable energy production in the county, including both private- and utility-scale solar and wind.



*ABOVE: Farmers Electric Cooperative's utility-scale solar array located near the unincorporated village of Frytown. This solar farm is one of the largest in Iowa. (Photo credit: Farmers Electric Cooperative)*





## Local Food Production

Johnson County is dedicated to expanding the availability of local food across the county. The county believes the unique merging of rural and urban landscapes creates a perfect environment for a local food initiative to flourish. In 2015, Johnson County added a full-time staff person responsible for local food initiatives—the Local Foods Coordinator.

One major achievement of the Local Food Initiative in Johnson County was the passing of a poultry processing ordinance in 2016. The ordinance allows up to 999 birds to be raised, slaughtered, and processed annually on agriculturally zoned parcels, provided the birds are sold only to household consumers.

### *Food Policy Council*

The Food Policy Council's mission is to “improve dialogue and discussion, provide necessary advice on food and agriculture issues to the county, municipalities, community boards, nongovernmental organizations, businesses, and other interested groups.” Each year, the Food Policy Council puts together a recommendation report for the county and hosts educational forums. Recommendations have included addressing production and sales obstacles, market strengthening, and increased County involvement.

### *Johnson County Historic Poor Farm*

The Johnson County Historic Poor Farm is a 160-acre property located in west Iowa City. The county-owned property was originally a facility for people with disabilities.

In 2015, this National Register of Historic Places site began a master planning process to determine how best to utilize the Historic Poor Farm in the years to come. Two local nonprofit organizations, Grow Johnson County and Iowa Valley Global Food Project, started to farm a portion of the land in 2015 and 2017, respectively. Both organizations provide fresh food for hunger and relief agencies. Grow Johnson County produced 12,000 pounds of food in 2016 and 27,500 pounds in 2017.

## Sustainability Grants Program for Nonprofits

The Sustainability Grants Program for Nonprofits helps certain local agencies make their buildings, operations, and other aspects of service provision more sustainable and reduces costs. Johnson County also provides technical guidance to assist organizations in realizing project goals and making sustainability an ongoing part of operational decisions.

In its first two years (2016-2017), the program distributed nearly \$43,000 for projects such as changing to LED bulbs, improving insulation, upgrading windows, and replacing inefficient air conditioning.

## Public Parks & Public Environmentally Sensitive Areas

Residents and visitors can enjoy numerous parks, prairies, and river access areas including the Johnson County Conservation Education Center in F.W. Kent Park, staffed by several naturalists. The Johnson County Conservation Board helps acquire environmentally sensitive land. An in-depth discussion of the conservation board’s work is discussed in Chapter 4: Infrastructure & Amenities.



## ENVIRONMENTAL CONCERNS

Within Johnson County, there are several environmental issues of ongoing concern: flooding, drought, soil and water quality issues, and invasive species. Many environmental concerns, such as flooding and drought, can be caused by individual or a series of extreme weather events—as of November 2017, there have been 21 Stafford Act Disaster Declarations made in Johnson County (among the most declarations in counties in Iowa).

While severe weather events can naturally occur, the changing climate contributes to increased frequency and severity of weather events and related impacts such as sea-level rise. *The Climate Science Special Report: Fourth Assessment Volume I* (2017) states that evidence strengthens “the conclusion that Earth’s climate is changing at a pace and in a pattern not explainable by natural influences.” The report, produced by the U.S. Global Change Research Program, draws on the findings of thousands of peer-reviewed scientific investigations.

Addressing environmental and climate concerns will help protect and restore ecosystem services. These are services that occur naturally and provide benefits such as flood mitigation, water purification, waste decomposition, and pollination. Protecting these services can help maintain and enhance the quality of life for future generations.

### Flooding

Johnson County has several large streams, rivers, and reservoirs located in its jurisdiction. However, the environmental, recreational, and aesthetic benefits of these water features must be balanced with protecting the public from the negative impacts of flooding, which is a significant issue in Johnson County.

#### *Flood Hazard Areas*

Many portions of Johnson County are within a designated floodplain as outlined by the Federal Emergency Management Agency (FEMA). FEMA’s Risk, Mapping, Assessment, and Planning program oversees the creation of official flood hazard information used in the National Flood Insurance Program (NFIP).

The Special Flood Hazard Area (i.e. 100-year Floodplain) includes areas with a 1% annual chance of flooding in any given year, which means the likelihood of a flood event over a 30-year home mortgage is 26%. The 500-year Floodplain covers areas with a 0.2% annual chance of flooding in any given year.

The Iowa River, the Cedar River, and many creeks pass through the county, creating large areas of 100-year and 500-year floodplains. Most of the tributaries of the Iowa River such as Old Man’s Creek, Snyder Creek, Ralston Creek, Clear Creek, among others, also have areas of floodplain surrounding them.

### Drought

Drought can involve lack of precipitation, decline in surface and ground waters, lack of soil moisture, and/or water shortages that affect people. Johnson County experienced significant drought in 2003 and 2005 that resulted in nearly \$31 million in reported crop damage. Severe drought occurred in 2012 that caused even more damage than one of the worst droughts, which occurred in 1988. The Johnson County Multi-Jurisdictional Hazard Mitigation Plan (2014–2019) states that widespread drought could seriously damage 25–50% of property, primarily crops. Other impacts can include affected animals and other wildlife, fire suppression challenges, and the availability of drinking water or manufacturing water. Given its potential effects on agriculture, the economy, and public health and safety, the County endeavors to consider drought as it creates plans and policies.



## Soil and Water Quality

Water quality is an important issue throughout Johnson County. The County builds valuable relationships with watershed stakeholders and collaborates with other public entities to enhance and protect water quality in an effort to ensure that residents have access to safe water for drinking, household use, and outdoor recreation.

### *Nonpoint Source Pollution*

Nonpoint source (NPS) pollution is caused by rainfall or snow melt moving across and through the ground. As runoff occurs, it carries natural and human-made pollutants into creeks, rivers, lakes, and ground water. Nonpoint pollutants sources can include:

- Sediment and pathogens from agriculture, improperly managed construction sites, eroding stream banks, residential and urban areas, and forest lands;
- Fertilizer, herbicides, and insecticides from agricultural, residential, and urban areas;
- Oil, grease, and toxic chemicals from urban runoff and energy production;
- Bacteria and nutrients from livestock operations, pet waste, and faulty septic systems; and
- Atmospheric deposition, stream channelization, and habitat alteration.

As NPS pollution is dependent upon the land uses within a watershed, the effects of NPS pollution can vary. Despite that, these pollutants have harmful effects on drinking water supplies, recreation, fisheries, and wildlife. Johnson County will continue to build partnerships and create awareness of best management practices within our watersheds.

Given the presence of both urban areas and rural agriculture in Johnson County, it is important to understand the role that both urbanized areas and agriculture play in water quality issues. Urban areas create more impermeable surfaces from which stormwater can run off into streams and tributaries, picking up pollutants along the way. Improperly managed construction sites are also a large source of urban pollutants in streams. There are several best management practices (BMP) for site development that can help decrease urban contributions of nonpoint source pollution.

Farmers can use BMPs, such as those in the Iowa Nutrient Reduction Strategy (NRS), to reduce the introduction of nonpoint pollution into the water system. Some of the BMPs used by Iowa farmers include no-till, cover crops, diverse crop rotation, filter strips, wetlands, ponds, and terraces, to name a few. Despite these efforts, water quality and agriculture remain an important topic.

As previously noted, Johnson County has been proactive in addressing stormwater management issues throughout its 2011 Stormwater Management Ordinance and subsequent 2016 amendment requiring all development to provide a stormwater management plan, unless given an exemption by the Planning, Development and Sustainability Department.

### *Wastewater Management*

More than one in five households in the United States depend on an individual on-site septic system or small community shared cluster system to treat their wastewater. These systems are used to treat and dispose of relatively small volumes of wastewater, usually from houses and businesses that are located relatively close together. Decentralized, private wastewater treatment, if properly implemented, can protect public health, preserve valuable water resources, and maintain economic vitality in a community. They are a cost-effective and long-term option for treating wastewater, particularly in less densely populated areas. Johnson County Public Health is responsible for



ensuring private sewage disposal systems comply with current state and local regulations. Johnson County Public Health has been proactive in addressing private wastewater system densities, protecting sensitive areas in the county through density requirements enacted by the Board of Health in 1968.

## Invasive Species

Invasive species are plants, animals, or pathogens that are non-native to the ecosystem under consideration and whose introduction causes or is likely to cause harm (USDA National Agricultural Library). Introduced primarily through human intervention, invasive species can damage the environment, the economy, and human health. Invasive species can prey on or out-compete native species for food and habitat, cause or carry disease, such as West Nile Virus, and prevent native species from reproducing.

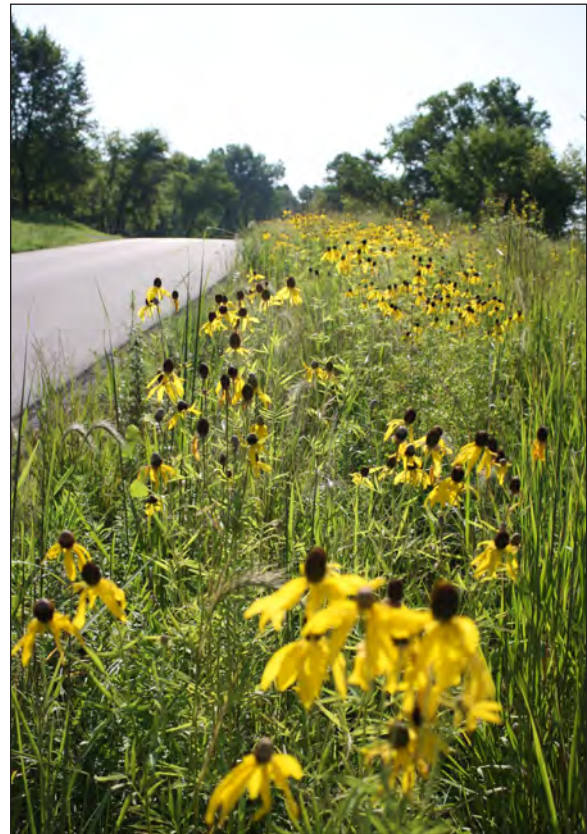
### *Invasive Weeds*

The prevalence of invasive noxious plant/weed species is of great concern in the county. Preventing the spread of invasive noxious weeds will help protect the biodiversity of Johnson County. Johnson County has a County Weed Commissioner, who enforces the Iowa Noxious Weed law and educates the public about native versus invasive plants and weeds.

Roadside Vegetation, a program within the Secondary Roads Department, actively plants long-lived perennials to out compete weeds, control soil erosion, and reduce stormwater runoff along county right-of-way. By summer 2017, an estimated 400 acres of county roadside had been planted with a sustainable prairie planting mix of 37 plants grasses, sedges, and wildflowers including three types of milkweed. The plantings help provide habitat for wildlife and food for pollinators.

### *Emerald Ash Borer*

Johnson County is one of thirty counties in Iowa now affected by the emerald ash borer, which has been found in almost all of eastern Iowa. The green beetle, which kills virtually all ash trees it infects, was imported to the U.S. from Asia around 2002 and detected in Iowa City in 2016. The easily transportable pest is on the radar of County preservation efforts. In addition to the loss of ash trees, affected communities must deal with the disposal of infected tree debris.



*ROADSIDE VEGETATION: By 2017, an estimated 400 acres of Johnson County's roadsides had been planted in a sustainable prairie planting mix.*



# SUSTAINABILITY FOR COUNTY OPERATIONS & FACILITIES

## Green Buildings & Energy Efficiency

Johnson County ensures green buildings and energy conservation and efficiency for its facilities through strategic planning by the Board of Supervisors and action by the Planning, Development and Sustainability Department in conjunction with Physical Plant.

In 2011, MidAmerican Energy conducted energy audits of seven Johnson County buildings and installed several energy-saving devices. Since then, County facility energy projects and new construction regularly participate in MidAmerican energy efficiency and rebate programs.

The 2014–2016 County Strategic Plan included five energy-related goals with the following results:

1. Complete energy-efficiency and renewable energy projects.
  - Major heating, ventilation, air conditioning, and lighting projects completed, garnering just over \$500,000 in rebates as of November 2017. Energy tracked through the Iowa B3 Benchmarking Program.
2. Set Sustainable Capital Project Standards.
  - Adopted in 2014 to require county projects greater than 2,000 conditioned square feet to pursue LEED certification or similar standards.
3. Create an internal fund for energy efficiency and renewable energy projects.
  - Established in 2014 and used to complete projects such as LED lighting, water bottle filler stations, soil quality restoration, and support for hybrid vehicles.
4. Reduce energy load of office and other equipment.
  - A review led to guidance on best practices for energy conservation.
5. Prepare feasibility reports on and start renewable energy projects.
  - The county was able to forgo such a study and began installing solar arrays in 2014; by 2016 a total of 330 kW had been installed at three sites, and more were planned.

Johnson County renewed its commitment to energy efficiency and other sustainability practices in its 2017–2018 Strategic Plan with these goals:

- Continue to reduce paper use.
- Increase energy coming from renewables.
- Reduce energy use.
- Follow adopted policies pertaining to sustainability.
- Create a stormwater management plan for each County facility.
- Monitor efficiency of fleet vehicles.



## Renewable Energy

In 2014, the County issued its first request for proposals for a solar photovoltaic project and since then has greatly expanded the use of solar for County facilities. The County also has been a leader in providing guidance to other counties, cities, and agencies looking to add solar to their facilities.

Solar energy use by the County includes a total of 330 kW in arrays at the Secondary Roads and SEATS campus, the Administration Building, and the Health and Human Services Building. At the time of plan adoption, an additional 67 kW was being added to the Ambulance Service and Medical Examiner Facility, which will bring the total onsite solar PV energy used by County buildings to nearly 400 kW. In addition, in 2016, the County paid for 20 modules at the Farmers Electric Cooperative Solar Garden, which generates power, adds it to the electrical grid, and gives the county a monthly credit for two County sheds.

## Stormwater Management for County Facilities

In 2013, the County created and adopted the Johnson County Property Stormwater Plan to address current infrastructure and make recommendations for future site designs on County property. The report incorporates Best Management Practices (BMPs) and guides the Johnson County Soil and Water Conservation Coordinator in creating specific stormwater management plans for County-owned property. Building-specific stormwater plans are being developed for each County building. A rejuvenated bioretention cell near the Administration Building helps remove pollutants in stormwater from parking lot runoff.



The addition of a solar array in 2016 to serve the Administration Building included a soil quality improvement project: deep-tine aeration with a layer of compost added and then seeding for a low-grow grass. Now, the soil can better capture stormwater with less mowing and reduced greenhouse gas emissions.

In 2016, the Administration Building solar array and soil quality improvement project earned the 1000 Friends of Iowa Innovative Leadership award.

## Resource Reduction, Reuse, and Recycling

Johnson County has several policies and programs in place to achieve resource reduction, reuse and recycling for its own facilities:

- Recycling, including of batteries and printer cartridges
- Composting at special events since 2014 and routinely in select buildings since 2017
- Green office supply purchasing and online surplus store to share items



## Climate Change Response

The County adopted a Greenhouse Gas (GHG) Reduction Plan in 2009. With changes in GHG protocols, the County has not conducted an inventory since 2010 but aims to complete one by 2019. As previously noted, sustainability goals for County operations are part of strategic planning.

In June 2017, the Board of Supervisors passed a resolution to support the Paris Climate Agreement, which aims to prevent global temperatures from rising and raised awareness through social media campaigns: @County4Climate and #Counties4Climate.



*RENEWABLE ENERGY: By November 2016, Johnson County had added 330 kW of solar photovoltaic arrays to several of its facilities, including the Administration Building and the Health and Human Services Building (both pictured above), and Secondary Roads and SEATS campus.*

## Employee Engagement & Education

The Green Team meets monthly to discuss sustainability ideas for the county. The team helps host educational events during Earth Week and Bike Month and regular programming on topics such as electric vehicles. Employees receive a Green Guide on sustainability practices for operations. In addition, the Johnson County Employee Handbook reflects a commitment to sustainability.

## Transportation & Roads

Johnson County SEATS is adding hybrid vehicles to its fleet, and its drivers are trained on how to reduce gas use and vehicle wear-and-tear. The County also is adding hybrid and electric vehicles to its general fleet.

Two shared bicycles are available for employees to use for meetings. In 2017, the League of American Bicyclists awarded the county downtown campus a Gold Bicycle Friendly Business Award. To encourage the use of mass transit, employees may purchase bus passes at a discounted rate. Information on bicycle commuting as well as trails is provided in the Infrastructure section of this plan.

The Secondary Roads Department regularly repurposes materials. In 2017 they reused three railroad flatcars to make a strong bridge for the Lower West Branch Road, keeping an estimated 100,000 pounds of steel out of the scrap yard. The department uses tons of recycled materials to repave roads, such as Wapsi Avenue, garnering a Green Product Usage Award.



[section 2.2]

## **PRIORITIES: SUSTAINABILITY**

Priorities were determined based on public input, feedback from the Board of Supervisors, and input from the Comprehensive Plan Committee (CPC). A full summary of input is included in Appendix B contained in Volume 2 of this plan.

### **PRIORITIES**

It is clear sustainability is very important to the public and elected officials of Johnson County. The County has made it a point to adhere to sustainability principles through its internal operations, as well as the policies and programs enacted over the years. These efforts help Johnson County continue to be an attractive place to live, work, and recreate. The following key themes were used to draft the goals and strategies for Johnson County's future:

#### **Preserve Natural Resources**

A theme throughout many conversations was the need to preserve Johnson County's environmentally sensitive areas and farmland from sprawl or unwanted residential growth in the rural areas of Johnson County. Key strategies to accomplish this goal are to look within the incorporated cities and unincorporated villages to identify development areas that minimize or, in some cases, eliminate opportunities for sprawl elsewhere. Redevelopment on infill lots within cities can also accomplish this goal; however, the County has no jurisdiction over development in the cities.

#### **Environmental Disaster Resiliency**

Over the years, Johnson County has experienced flooding, drought, and other environmental hazards that have impacted lives of many residents. Putting appropriate planning and zoning policies in place can reduce the impact of these events on structures and people. To that end, Johnson County has implemented many policies; however, they must be updated on a regular basis in response to new information and the changing environment.

#### **Leader in Green Practices**

Johnson County provides soil and water conservation services to homeowners and businesses, and guidance on solar installations. The County supports expanded renewable energy production, including both private and utility scale solar and wind, to reduce dependency on fossil fuels. A sustainability grants program provides funding and technical assistance for nonprofit groups to compile energy efficiencies and other projects. However, there is opportunity to increase public awareness and education about sustainability as the County models best management practices. Creating new partnerships and seeking out new ways to share the benefits of these programs is one way to accomplish this goal.





[section 2.3]

## GOALS, STRATEGIES & ACTION STEPS: SUSTAINABILITY

All goals, strategies, and action steps were developed based on the priorities discussed above and the information collected through the public input process, input from the Comprehensive Plan Committee (CPC), and feedback from the Board of Supervisors. To see a summary of input (including survey results) regarding Sustainability, please see Appendix B in Volume 2 of this plan.

**DEFINITION:** Below are definitions of each term and how they will be used in the Implementation Plan section of the comprehensive plan.

- **Goal:** A desired outcome based on the values of the public and elected officials.
- **Strategy:** The approach you take to achieve a goal.
- **Action:** The specific steps you take to achieve a strategy.

**FORMAT:** Each goal (e.g. SUST 1) is presented with corresponding strategies (e.g. Strategy 1, Strategy 2) and action steps (e.g. Action 1, Action 2).

**SUSTAINABILITY 1 – This is an example of a Goal’s formatting.**

**Strategy 1 – This is an example of a Strategy’s formatting.**

Action 1 – This is an example of an Action Step’s formatting.

Action 2 – This is an example of an Action Step’s formatting.

Action 3 – This is an example of an Action Step’s formatting.

**SUSTAINABILITY 1 – Support and implement sustainability strategies that preserve natural resources.**

**Strategy 1 – Revise building permit procedures to improve on-site resource protection.**

Action 1 – Create top soil preservation rules.

Action 2 – Update soil erosion control regulations to require erosion control on certain building permits for new structures.

Action 3 – Create an inspection procedure for sensitive areas, stormwater, topsoil preservation, and soil erosion control for all development sites.

**Strategy 2 – Foster the development of watershed and water quality plans.**

Action 1 – Continue to participate in Watershed Management Authorities and collaborate with local experts.

Action 2 – Incorporate best management practices into stormwater management.

**Strategy 3 – Support and encourage a sustainable agricultural system by working with partners.**

Action 1 – Encourage in-field and edge-of-field best management practices on lands used for row crop production.



**SUSTAINABILITY 2 – Develop and/or coordinate with local and regional hazard mitigation, resiliency, and climate change planning.**

**Strategy 1 – Review and help update the Johnson County Multi-Jurisdictional Hazard Mitigation Plan 2014–2019.**

- Action 1 – Consider how the plan’s requirements affect other county goals.
- Action 2 – Promote greater coordination between the county, city governments, and other organizations.
- Action 3 – Contribute to and comply with future plans as they are created.
- Action 4 – Integrate future hazard mitigation plan findings and policies into plans and projects related to land use, transportation, climate change, sustainability, natural and cultural resource protection, watershed management, and economic development.

The *Johnson County Multi-Jurisdictional Hazard Mitigation Plan 2014–2019 (HMP)* is intended to (1) identify how a community can minimize death, injury, property damage, and community disruption caused by natural, human caused, or combination hazards, (2) use a proactive rather than reactive approach to reduce the negative impacts of potential hazards, and (3) maintain eligibility to apply for Hazard Mitigation Grant Program funding, which is available after a federal disaster declaration is issued in Iowa. The plan covers all areas of Johnson County including both rural areas and incorporated cities. Below is a list of hazards both natural and human caused/combination covered in the Johnson County Multi-Jurisdictional HMP:

<b>NATURAL DISASTERS</b>		<b>HUMAN CAUSED/COMBINATION</b>
• Tornadoes	• Drought	• Human Disease
• Windstorms	• Earthquakes	• Hazardous Materials
• Extreme Heat	• Landslide	• Transportation Incident
• Hailstorms	• Expansive Soils	• Infrastructure Failure
• River Flooding	• Levee Failure	• Terrorism
• Sink Holes	• Dam Failure	• Radiological
• Grass or Wild Land Fire	• Thunderstorm & Lightning	• Animal/Plant/Crop Disease
• Severe Winter Storms		

**Strategy 2 – Discourage development in flood-prone areas.**

- Action 1 – Use, and educate the public about, Federal Emergency Management Agency (FEMA) digital Flood Hazard Maps and local floodplain regulations.
- Action 2 – Consider updates to the Floodplain Development Regulations to improve protection from flood damage.
- Action 3 – Adopt the Iowa Department of Natural Resources (IDNR) latest model floodplain ordinance with considerations specific to Johnson County.
- Action 4 – Establish best management practices.
- Action 5 – Secure membership in the National Flood Insurance Program (NFIP) Community Rating System (CRS) or equivalent program.

**Strategy 3 – Create a climate action and resiliency plan.**

- Action 1 – Coordinate efforts with existing plans and efforts of incorporated areas.
- Action 2 – Identify key stakeholders and partners for plan development and implementation.
- Action 3 – Coordinate as appropriate with state, national, and international plans and initiatives.



WHAT IS THE **COMMUNITY RATING SYSTEM (CRS) PROGRAM**? This program recognizes and encourages community floodplain management activities that exceed the minimum National Flood Insurance Program (NFIP) standards. Depending upon the level of participation, flood insurance premium rates for policyholders can be reduced up to 45%. Besides the benefit of reduced insurance rates, CRS floodplain management activities enhance public safety, reduce damage to property and public infrastructure, help minimize economic disruption and losses, reduce human suffering, and protect the environment in the event of a flood. Participating in the CRS provides an incentive to a community to maintain and improve their floodplain management program. Iowa City and Coralville are two communities in Johnson County that were CRS rated at the time that this plan was adopted. In addition, Linn County had a CRS rating.

### **SUSTAINABILITY 3 – Support affordable and equitable access to quality housing.**

#### **Strategy 1 – Promote a variety of housing options.**

- Action 1 – Encourage, where appropriate, higher density and multifamily housing by using incentives such as density bonuses.
- Action 2 – Support efforts to develop affordable rental and owner-occupied housing.
- Action 3 – Participate in and/or conduct regional housing studies to identify housing needs.
- Action 4 – Consider how housing options relate to coordinated land use goals and transportation in this comprehensive plan.
- Action 5 – Adopt and/or develop regulations that accommodate a wider variety of housing types.

#### **Strategy 2 – Consider establishing a rental housing inspection and licensing program for unincorporated areas.**

- Action 1 – Review best management practices.
- Action 2 – Dedicate financial resources to fund, if adopted.

### **SUSTAINABILITY 4 – Support and advance energy efficiency, resource conservation, and renewable energy programs, policies, and uses.**

#### **Strategy 1 – Continue partnerships with nonprofit organizations to improve their operations.**

#### **Strategy 2 – Continue to be a resource to the community on sustainable practices.**

- Action 1 – Complete website enhancements to better promote available services.
- Action 2 – Provide educational events.
- Action 3 – Establish other programs through partnerships with cities, the University of Iowa, community school districts, and other organizations.

#### **Strategy 3 – Support the development of utility scale solar in Johnson County.**

- Action 1 – Identify and mitigate barriers to the appropriate development and use of energy efficiency, energy conservation, and renewable energy, including utility scale solar.
- Action 2 – Incorporate best practices into programs, policies, and code.
- Action 3 – Ensure consideration of natural resource and agricultural protection.



**SUSTAINABILITY 5 – Prioritize green building and sustainable development practices for existing and future residential, commercial, and industrial development.**

**Strategy 1 – Require the most up-to-date building code standards.**

Action 1 – Adopt the most current International Building Code (IBC).

**Strategy 2 – Ensure new development conforms to adopted sustainable development standards.**

Action 1 – Create and use a Sustainable Subdivision Design Ordinance to make development decisions.

Action 2 – Revise other standards to reflect sustainable practices.

*A **Sustainable Subdivision Design Ordinance** established by the Board of Supervisors would help ensure that future development is designed efficiently and minimizes impact to the environment. An ordinance could include criteria such as (1) interconnectedness of road networks, (2) density standards, (3) infrastructure provision (current roads), (4) preservation of sensitive areas, (5) provision of sidewalks, trails, and amenities, (6) preservation of open space, (7) shared septic systems, and (8) existing zoning.*

**Strategy 3 – Provide incentives for green development.**

Action 1 – Encourage voluntary practices such as open space preservation, renewable energy, and affordable housing through best practices such as density bonuses.

**Strategy 4 – Revise ordinances to strongly encourage on-site protection and discourage off-site mitigation of sensitive areas.**

**SUSTAINABILITY 6 – Remain a leader in green facilities, operations, and infrastructure.**

**Strategy 1 – Continue to reduce the environmental impact of Johnson County facilities and operational practices.**

Action 1 – Enact management policies to introduce and advance practices.

Action 2 – Continue to coordinate with the capital improvement plans and follow the Sustainability Capital Standards Process or subsequent policies.

Action 3 – Initiate and maintain energy and resource conservation and efficiency practices.

Action 4 – Adopt sustainable infrastructure practices on county road and parking projects.

Action 5 – Continue to utilize solar power and consider other renewables for county facilities.

Action 6 – Promote non-single occupancy vehicle use such as mass transit, carpooling, bicycling, etc.

**Strategy 2 – Coordinate efforts with local organizations, institutions, and agencies.**

Action 1 – Continue to work with groups such as the Sustainability Working Group of Johnson County.

Action 2 – Provide employee and public education events such as Earth Week and Bike Month.



# IMPLEMENTATION: SUSTAINABILITY

## IMPLEMENTATION TABLE

The implementation table presents the strategies and action steps developed for each of the plan elements: Sustainability, Local Economy, Infrastructure and Amenities, and Land Use. There are three components in each table: Strategy/Action Step, Timeframe, and Collaborating Partners.

### Goals, Strategies & Action Steps

The goals, strategies, and action steps presented are the same as those presented earlier in this chapter under “Priorities and Goals.”

### Timeframe

An approximate timeframe to complete each action step was determined by staff evaluation. This evaluation considered existing or future funding capacity, expertise and technical capacity of existing staff, and the potential for acquiring additional expertise or technical capacity. The assigned timeframes are estimates; it may take less or more time for any given action step to be completed. Here are the four timeframes:

- Ongoing: Existing strategies that are on a regular cycle or will continue
- Short-term: < 2 years
- Mid-term: 2 to 5 years
- Long-term: > 5 years

### Collaborating Partners

Implementation of the plan strategies involves the actions and decisions of entities other than county government. The success of the comprehensive plan’s vision is dependent on the County’s ability to identify these partners, reach out, and maintain ongoing communication and coordination. The implementation tables identify suggested collaborating partners; additional organizations may be identified over time, and partners that are not listed are not excluded from future collaboration. For policy and ordinance development, there will be ample opportunity for input through public hearings and meetings.

The following key works for all implementation tables; some abbreviations may not appear in every chapter:

- **BOS:** Johnson County Board of Supervisors
- **CSD:** Community School Districts
- **CVB:** Iowa City/Coralville Convention & Visitors Bureau
- **ECICOG:** East Central Iowa Council of Governments
- **EMA:** Johnson County Emergency Management Agency
- **FEMA:** Federal Emergency Management Agency
- **FSA:** Farm Service Agency
- **ICAD:** Iowa City Area Development Group
- **IDNR:** Iowa Department of Natural Resources
- **I-DOT:** Iowa Department of Transportation
- **IT:** Johnson County Information Technology
- **MPOJC:** Metropolitan Planning Organization of Johnson County
- **NRCS:** Natural Resources Conservation Service
- **PDS:** Johnson County Planning, Development & Sustainability
- **SEATS:** Johnson County SEATS Paratransit
- **SWCD:** Johnson County Soil & Water Conservation District
- **WMA:** Watershed Management Authorities



<b>SUST 1 – Support and implement sustainability strategies that preserve natural resources.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Revise building permit procedures to improve on-site resource protection.</b>		
Action 1 – Create top soil preservation rules.	Short-term	PDS, NRCS, SWCD
Action 2 – Update soil erosion control regulations to require erosion control on certain building permits for new structures.	Mid-term	PDS, NRCS, SWCD
Action 3 – Create an inspection procedure for sensitive areas, stormwater, topsoil preservation, and soil erosion control for all development sites.	Short-term	PDS, NRCS, SWCD
<b>Strategy 2 – Foster the development of watershed and water quality plans.</b>		
Action 1 – Continue to participate in Watershed Management Authorities and collaborate with local experts.	Ongoing	BOS, Various WMAs, Iowa Flood Center
Action 2 – Incorporate best management practices into stormwater management.	Short-term	PDS, NRCS, SWCD
<b>Strategy 3 – Support and encourage a sustainable agricultural system by working with partners.</b>		
Action 1 – Encourage in-field and edge-of-field best management practices on lands used for row crop production.	Ongoing	PDS, NRCS, SWCD
<b>SUST 2 – Develop and/or coordinate with local and regional hazard mitigation, resiliency, and climate change planning.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Review and help update the Johnson County Multi-Jurisdictional Hazard Mitigation Plan 2014–2019.</b>		
Action 1 – Consider how the plan’s requirements affect other county goals.	Short-term	BOS, PDS, EMA
Action 2 – Promote greater coordination between the county, city governments, and other organizations.	Ongoing	BOS, PDS, EMA, cities, ECICOG, CSD
Action 3 – Contribute to and comply with future plans as they are created.	Ongoing	BOS, PDS, EMA, ECICOG
Action 4 – Integrate future hazard mitigation plan findings and policies into plans and projects related to land use, transportation, climate change, sustainability, natural and cultural resource protection, watershed management, and economic development.	Mid-term	BOS, PDS, EMA, Secondary Roads, Conservation
<b>Strategy 2 – Discourage development in flood-prone areas.</b>		
Action 1 – Use, and educate the public about, Federal Emergency Management Agency (FEMA) digital Flood Hazard Maps and local floodplain regulations.	Ongoing	PDS, IDNR, EMA, FEMA



STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
Action 2 – Consider updates to the Floodplain Development Regulations to improve protection from flood damage.	Mid-term	PDS, IDNR, EMA
Action 3 – Adopt the Iowa Department of Natural Resources (IDNR) latest model floodplain ordinance with considerations specific to Johnson County.	Short-term	PDS, IDNR, EMA
Action 4 – Establish best management practices.	Mid-term	PDS, IDNR, EMA
Action 5 – Secure membership in the National Flood Insurance Program (NFIP) Community Rating System (CRS) or equivalent program.	Mid-term	PDS, IDNR, EMA
<b>Strategy 3 – Create a climate action and resiliency plan.</b>		
Action 1 – Coordinate efforts with existing plans and efforts of incorporated areas.	Mid-term	BOS, PDS, cities, EMA
Action 2 – Identify key stakeholders and partners for plan development and implementation.	Mid-term	BOS, PDS, cities, EMA
Action 3 – Coordinate as appropriate with state, national, and international plans and initiatives.	Mid-term	BOS, PDS, cities, EMA
<b>SUST 3 – Support affordable and equitable access to quality housing.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Promote a variety of housing options.</b>		
Action 1 – Encourage, where appropriate, higher density and multifamily housing by using incentives such as density bonuses.	Short-term	PDS, Livable Communities Advisory Committee, Housing Trust Fund
Action 2 – Support efforts to develop affordable rental and owner-occupied housing.	Ongoing	BOS, PDS, local housing experts
Action 3 – Participate in and/or conduct regional housing studies to identify housing needs.	Mid-Term/ Ongoing	BOS, PDS, local housing experts, MPOJC
Action 4 – Consider how housing options relate to coordinated land use goals and transportation in this comprehensive plan.	Ongoing	BOS, PDS, local housing experts, MPOJC
Action 5 – Adopt and/or develop regulations that accommodate a wider variety of housing types.	Short-term/ Ongoing	BOS, PDS, local housing experts
<b>Strategy 2 – Consider establishing a rental housing inspection and licensing program for unincorporated areas.</b>		
Action 1 – Review best management practices.	Mid-term	PDS, cities, rural landlords
Action 2 – Dedicate financial resources to fund, if adopted.	Ongoing	BOS, rural landlords



<b>SUST 4 – Support and advance energy efficiency, resource conservation, and renewable energy programs, policies, and uses.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Continue partnerships with nonprofit organizations to improve their operations.</b>		
<b>Strategy 2 – Continue to be a resource to the community on sustainable practices.</b>		
Action 1 – Complete website enhancements to better promote available services.	Ongoing	PDS, IT
Action 2 – Provide educational events.	Ongoing	Multiple
Action 3 – Establish other programs through partnerships with cities, the University of Iowa, community school districts, and other organizations.	Ongoing	Multiple
<b>Strategy 3- Support the development of utility scale solar in Johnson County.</b>		
Action 1 – Identify and mitigate barriers to the appropriate development and use of energy efficiency, energy conservation, and renewable energy, including utility scale solar.	Ongoing	PDS, Energy Experts
Action 2 – Incorporate best practices into programs, policies, and code.	Ongoing	PDS, BOS
Action 3 – Ensure consideration of natural resource and agricultural protection.	Ongoing	PDS, NCRS, SWCD
<b>SUST 5 – Prioritize green building and sustainable development practices for existing and future residential, commercial, and industrial development.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Require the most up-to-date building code standards.</b>		
Action 1 – Adopt the most current International Building Code (IBC).	Ongoing	PDS
<b>Strategy 2 – Ensure new development conforms to adopted sustainable development standards.</b>		
Action 1 – Create and use a Sustainable Subdivision Design Ordinance to make development decisions.	Short-term	PDS
Action 2 – Revise other standards to reflect sustainable practices.	Short-term	PDS
<b>Strategy 3 – Provide incentives for green development.</b>		
Action 1 – Encourage voluntary practices such as open space preservation, renewable energy, and affordable housing through best practices such as density bonuses.	Ongoing	PDS
<b>Strategy 4 – Revise ordinances to strongly encourage on-site protection and discourage off-site mitigation of sensitive areas.</b>		





**SUST 6 – Remain a leader in green facilities, operations, and infrastructure.**

STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Continue to reduce the environmental impact of Johnson County facilities and operational practices.</b>		
Action 1 – Enact management policies to introduce and advance practices.	Mid-term	BOS, PDS, Facilities
Action 2 – Continue to coordinate with the capital improvement plans and follow the Sustainability Capital Standards Process or subsequent policies.	Ongoing	BOS, PDS, Facilities
Action 3 – Initiate and maintain energy and resource conservation and efficiency practices.	Ongoing	BOS, PDS, Facilities
Action 4 – Adopt sustainable infrastructure practices on county road and parking projects.	Ongoing/ Mid-term	BOS, PDS, Secondary Roads, Facilities
Action 5 – Continue to utilize solar power and consider other renewables for county facilities.	Ongoing	BOS, PDS, Facilities
Action 6 – Promote non-single occupancy vehicle use such as mass transit, carpooling, bicycling, etc.	Ongoing	BOS, SEATS, Green Team
<b>Strategy 2 – Coordinate efforts with local organizations, institutions, and agencies.</b>		
Action 1 – Continue to work with groups such as the Sustainability Working Group of Johnson County.	Ongoing	BOS, PDS, Green Team
Action 2 – Provide employee and public education events such as Earth Week and Bike Month.	Ongoing	BOS, PDS, Green Team

PROFILE

PRIORITIES

GOALS

IMPLEMENTATION



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Chapter 3

# Local Economy

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# Local Economy

# 3

## JOHNSON COUNTY

The rural farms and businesses as well as the urban centers of Johnson County provide numerous economic opportunities for county residents as well as the surrounding areas. The following information highlights the county’s position as a regional economic center and opportunities for continued success.

[section 3.1]

### PROFILE

Johnson County’s continued population growth is inextricably tied to the tremendous employment opportunities provided within Iowa City and other urban centers—especially the University of Iowa, Kirkwood Community College Iowa City campus, and many healthcare service providers located in Iowa City. Other major employers include ACT, Inc. (educational testing), Pearson Educational Measurement (educational testing), local school districts, and Hy-Vee (retail) (see Table 1 on the following page).



*University of Iowa Hospitals and Clinics, including the Children’s Hospital wing built in 2016, is one of the largest employers in Johnson County. (Photo credit: University of Iowa Health Care)*



**Table 1. Johnson County Top 20 Employers (April 2017)**

Rank	Company Name	Location	Sector	No. of Employees
1	University of Iowa	Iowa City	Post-secondary education	18,650*
2	University of Iowa Hospitals and Clinics	Iowa City	Healthcare	8,704**
3	Iowa City Community School District	Iowa City	Education	2,346**
4	Veterans Health Administration	Iowa City	Healthcare	1,562*
5	Mercy Iowa City	Iowa City	Healthcare	1,559**
6	ACT, Inc.	Iowa City	Educational testing services	1,350***
7	Pearson Educational Measurement	Iowa City	Educational testing services	1,200***
8	Hy-Vee	Iowa City, Coralville	Retail/Grocer	1,166***
9	City of Iowa City	Iowa City	Public administration	1,108**
10	Systems Unlimited	Iowa City	Human services	890*
11	International Automotive Components	Iowa City	Manufacturing - Automotive	750***
12	Rockwell Collins	Coralville	Manufacturing - Electronics	700***
13	General Dynamics	Coralville	Government services	700***
14	Integrated DNA Technologies	Coralville	Manufacturing - Biotech	620***
15	Procter & Gamble	Iowa City	Manufacturing - Personal care	600***
16	Oral B Laboratories	Iowa City	Manufacturing - Personal care	530***
17	GEICO	Coralville	Auto Insurance - Call Center	500***
18	Johnson County Administration	Iowa City	Public administration	435**
19	Centro	North Liberty	Manufacturing - Plastics	399**
20	ALPLA of Iowa	Iowa City	Manufacturing - Plastics	360*

Data collected in 2011(\*), 2014(\*\*), and 2016(\*\*\*)

Source: Iowa City Area Development Group, April 2017  
 (<http://www.iowacityareadevelopment.com/build/leading-employers.aspx>)

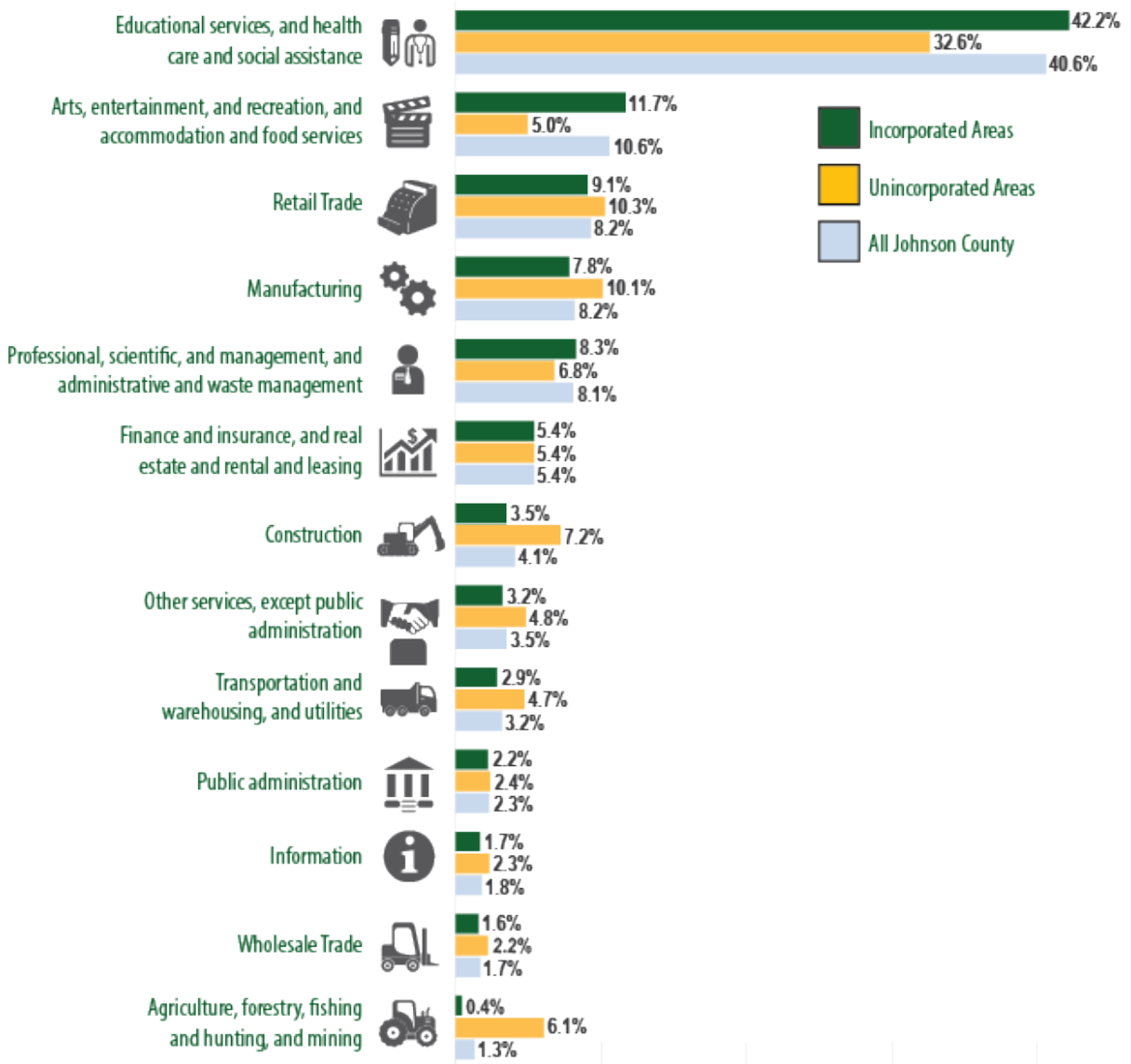


# LABOR FORCE CHARACTERISTICS

Labor force data from the U.S. Census Bureau provide insights into Johnson County's rural economy. In addition to this county-level data, workforce data for the incorporated areas help show comparisons between where rural and urban residents work.

The largest employer by sector for both rural and urban residents is the education/health industry. Nearly one in three (32.6%) rural residents and nearly half (42.2%) of all urban residents work in this industry that includes the University of Iowa, its hospitals and clinics, Kirkwood Community College, public and private schools, and other medical services including social assistance providers. The arts, entertainment, and recreation services industry (10.6% of the labor forces) and the retail trade industry (10.3%) are the second and third largest industries employing Johnson County residents.

**Figure 1. Labor Force Characteristics by Industry (2015): Incorporated vs Unincorporated**



Source: American Community Survey, Five-Year Estimates (2015)



Based on the county-level data, the agricultural sector involves the fewest jobs, accounting for 1.3% of all employment. However, when parsed out between rural and urban residents, 6.1% of employed unincorporated residents work in the agricultural sector, compared to 0.4% of those in the incorporated areas. This distinction is important as a majority of Johnson County’s rural land is utilized for agriculture including row crop farming and animal operations. Other industries where the share of rural residents is disproportionately greater than the share of urban residents is construction (7.2% rural, 3.5% urban), manufacturing (10.1% rural, 7.8% urban), and transportation, warehousing, and utilities (4.7% rural, 2.9% urban).

Industries that employ proportionally fewer rural than urban residents include the arts, entertainment, and recreation services industry (5.0% rural, 11.7% urban). Much of this can be attributed to the University of Iowa and its various activities attracting visitors to the Iowa City area. Similarly, the difference between rural and urban residents employed in the education/health industry (32.6% rural, 42.2% urban) is also heavily impacted by the University of Iowa and its hospitals and clinics as well K-12 schools such as the Iowa City Community School District, the fifth largest district in the state.

## COMMUTER TRENDS

Based on 2015 American Community Survey estimates, nearly 80% of Johnson County’s rural workforce drives to work alone. This is to be expected since employment centers are located primarily in urban areas. At the same time, one in 14 people (7.1%) in the rural workforce has a home-based job, including agriculturally related employment. This is twice the rate of the county’s incorporated areas. It is also interesting to note that 8.9% of rural residents carpooled, only slightly lower than the rate for incorporated areas (9.2%). Access to public transportation in rural areas is limited, and as a result, only 0.5% of rural residents commute using this mode of transportation. Only 0.3% of rural residents currently commute by bicycle, a rate that may grow as more bicycle friendly infrastructure is built.

**Table 2. Commuter Trends by Means of Transportation (2015)**

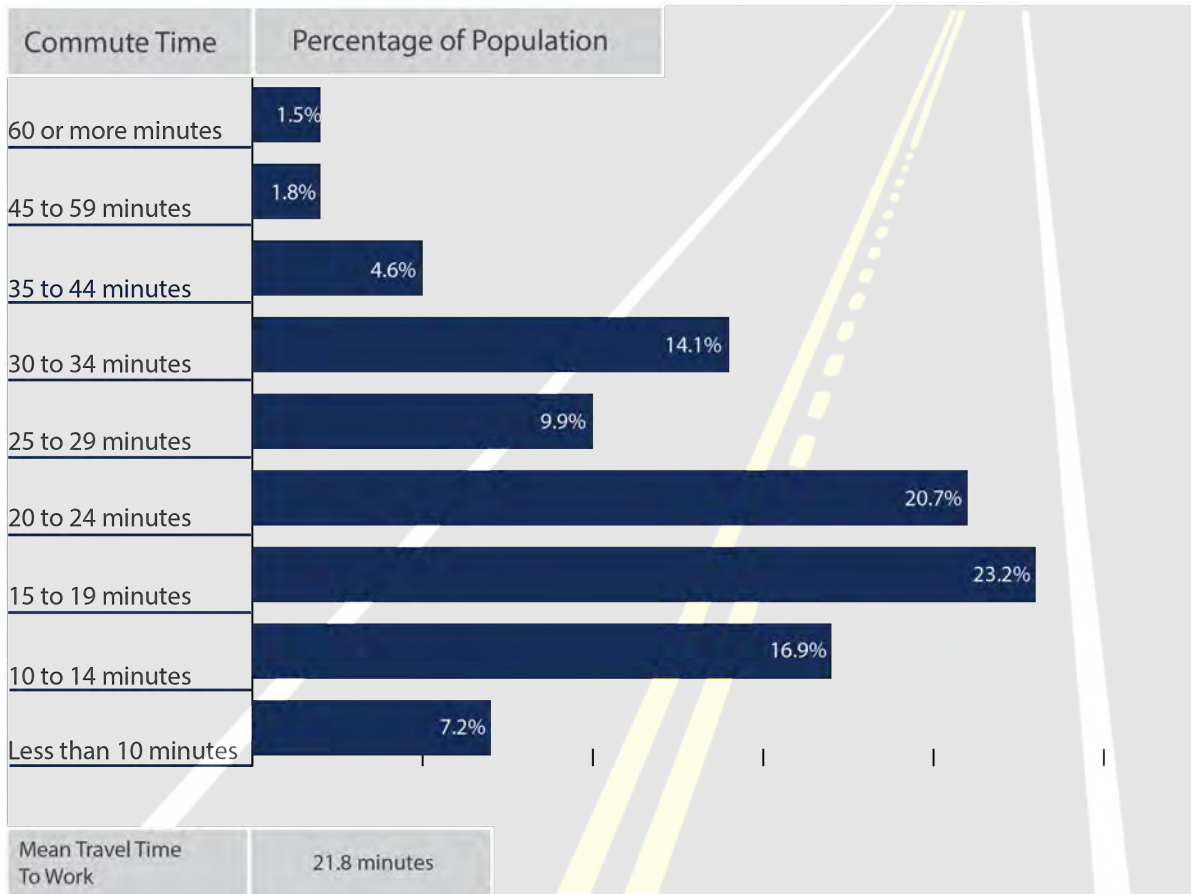
	Incorporated	Unincorporated	Johnson County	Iowa
Workers 16 years and older	64,737	12,535	77,272	1,546,601
<b>MEANS OF TRANSPORTATION TO WORK</b>				
Car, truck, or van -- Drove alone	64.6%	78.6%	66.9%	80.6%
Car, truck, or van -- Carpooled	9.1%	8.9%	9.1%	8.8%
Public transportation (excluding taxicab)	7.7%	0.4%	6.5%	1.1%
Walked	10.7%	1.8%	9.3%	3.5%
Bicycle	2.8%	0.3%	2.4%	0.5%
Taxicab, motorcycle, or other means	1.5%	2.9%	1.7%	1.0%
Worked from home	3.5%	7.1%	4.1%	4.5%

Source: American Community Survey, Five-Year Estimates (2015)



The current 21.8-minute average commute time for rural residents is only slightly higher than the countywide average of 18.3 minutes. However, with a growing Johnson County population and additional employment opportunities in neighboring counties, travel times may increase as rush hour traffic on I-80/380 continues to increase. Beside expanding roadways, several solutions could help reduce commute times. Examples include policies that site residential development near employment centers and expanded access to alternative modes of transportation such as public transit, park and rides, and bicycle infrastructure.

**Figure 2. Commuter Trends by Travel Time: Unincorporated (2015)**



Source: American Community Survey, Five-Year Estimates (2015)



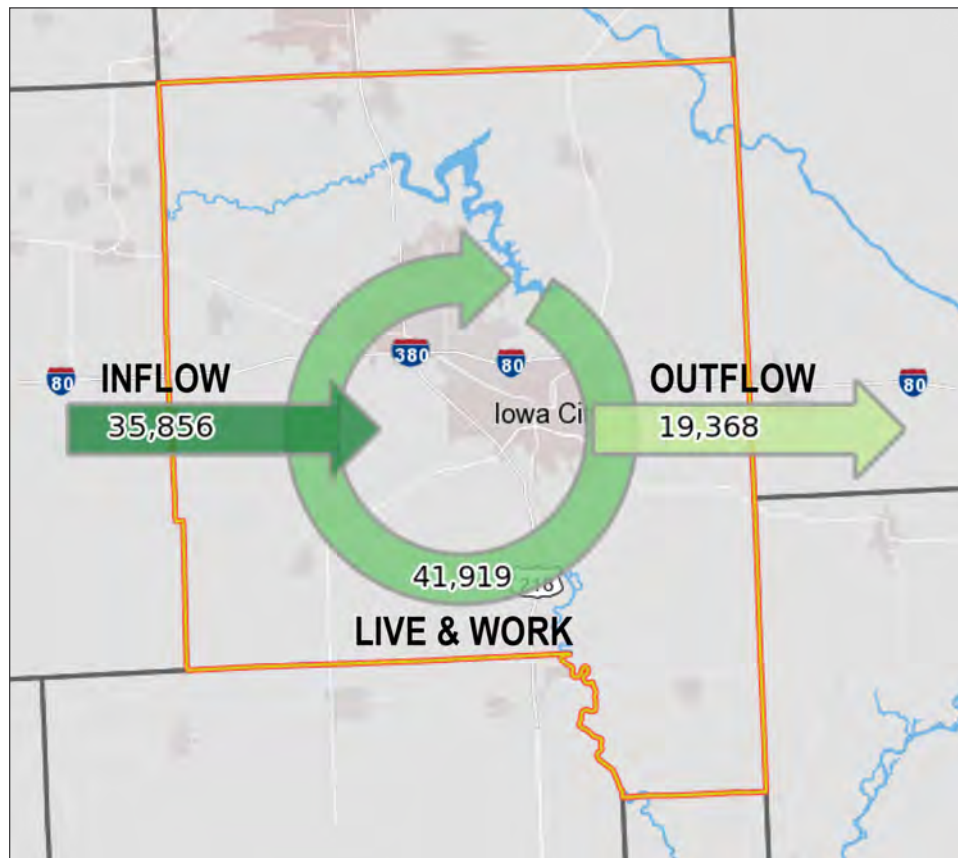


### Commuter Inflow & Outflow

Another method to determine commuting patterns is to identify the start and end points of work trips across jurisdictional boundaries. A commute shed is the employment locations of workers who live within an identified area, and a labor shed is the residence locations of workers who work within an identified area.

Figure 3 compares the number of people coming into the county for employment (inflow), the number of people commuting out of the county for employment (outflow), and the number of people who live and work in Johnson County. Of the 77,775 jobs in Johnson County, slightly more than half (53.9%) are filled by Johnson County residents (Table 3). The remaining 46.1% of jobs in the county are filled by people commuting into Johnson County from neighboring counties such as Linn County (10.4%), Washington County (3.9%), and Cedar County (2.7%). Overall, nearly twice as many workers commute into Johnson County for work (35,856) than commute out of the county for work (19,368). Those who commute out of Johnson County commute to neighboring Linn County (13.6%), and as far away as Polk County (2.9%) and Scott County (1.9%) (Table 3).

**Figure 3.** *Commuter Inflow & Outflow for Johnson County (2014)*



*Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2014).*



**Table 3. Commuter Inflow & Outflow Analysis (2014)**

INFLOW: WHERE PEOPLE WHO WORK IN JOHNSON COUNTY LIVE			OUTFLOW: WHERE PEOPLE WHO LIVE IN JOHNSON COUNTY WORK		
Home Location	Number	Share	Work Location	Number	Share
Johnson County	41,919	53.9%	Johnson County	41,919	68.4%
<b>OUTSIDE JOHNSON COUNTY</b>			<b>OUTSIDE JOHNSON COUNTY</b>		
Linn County	8,096	10.4%	Linn County	8,322	13.6%
Washington County	3,011	3.9%	Polk County	1,784	2.9%
Cedar County	2,135	2.7%	Scott County	1,152	1.9%
Muscatine County	2,014	2.6%	Washington County	864	1.4%
Iowa County	1,828	2.4%	Iowa County	717	1.2%
Polk County	1,584	2.0%	Black Hawk County	642	1.0%
Scott County	1,312	1.7%	Muscatine County	612	1.0%
Dubuque County	1,055	1.4%	Dubuque County	502	0.8%
Black Hawk County	744	1.0%	Cedar County	495	0.8%
All Other Locations	14,077	18.1%	All Other Locations	4,278	7.0%
<b>SUBTOTAL</b>	<b>35,856</b>	<b>46.1%</b>	<b>SUBTOTAL</b>	<b>19,368</b>	<b>31.6%</b>

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2014).



## EDUCATION

Educational institutions are frequently one of the largest employers in a county, and attract potential employees and businesses. Not only does Johnson County have a large public school system (12 districts), it is also home to the University of Iowa, a major educational institution serving Iowa and beyond. In addition, a satellite campus for Kirkwood Community College provides the county with additional educational opportunities. Both of these centers of higher learning increase daily commuter traffic and attract new residents to Johnson County.

### University of Iowa

The University of Iowa Hospital and Clinics and the larger university as a whole are the top two employers in the county with more than 24,000 total employees. In addition, nearly 32,000 undergraduate and graduate students flow onto campus every fall and support the local businesses and, upon graduation, provide a highly educated workforce.

Per the University of Iowa’s Outreach and Engagement data, more than 26,000 alumni reside in Johnson County, which can largely be attributed to the great quality of life and employment opportunities available in the area. Beyond the impact to business and employment in the county, the presence of the university puts pressure on the housing sector in order to accommodate students, university employees, and their families.



*The Old Capitol on the University of Iowa Campus. (Photo Credit: University of Iowa)*

### Kirkwood Community College

The Iowa City campus of Kirkwood Community College provides various degree programs, career programs, professional certificates and diplomas, and continuing education opportunities. Students earning associate degrees who transfer to a four-year university or college, earn affordable credit while jointly enrolled or explore a whole new career. A special partnership between Kirkwood and the University of Iowa makes the transition to a four-year program seamless.



Kirkwood Community College's Iowa City Campus (Photo Credit: Kirkwood Community College)

## Primary & Secondary Education

Twelve public school districts fall within Johnson County. Eight of those districts have school facilities within the county. Iowa City Community School District, the fifth largest district in the state, falls entirely within Johnson County.

Table 4 shows the percent of students eligible for free and reduced lunch (FRL) for the districts that have a school in Johnson County. Nonpublic enrollment refers to students enrolled at the school district who participate in special accredited college preparatory courses. FRL is determined by household income and the number of persons in said household. For example, a household of four with an income of \$44,995 or below would be eligible for this program. This is used as a key indicator of income disparity between individual schools and school districts. The statewide average of FRL eligible students is 38.4%, which is higher than the rate in all the school districts serving Johnson County. Both Iowa City CSD and Lone Tree CSD free and reduced lunch rates are near the state average at 36.7% and 33.7%, respectively. Solon Community School District at 8.2% has one of the lowest rates of free and reduced lunch eligible students in the state.

**Table 4.** Certified Enrollment & Free/Reduced Lunch Rates (2016–2017)

District Name	Certified Enrollment	Non-public Enrollment	Total	FRL Eligible
Clear Creek Amana CSD	2,005	24	2,029	19.8%
College CSD	5,087	135	5,222	29.6%
Highland CSD	629	6	635	23.2%
Iowa City CSD	13,982	984	14,965	36.7%
Lone Tree CSD	360	4	364	33.7%
Mid-Prairie CSD	1,258	92	1,350	23.8%
Solon CSD	1,329	21	1,350	8.2%
West Branch CSD	769	12	781	24.2%

Source: Iowa Department of Education, 2016–2017 Certified Enrollment

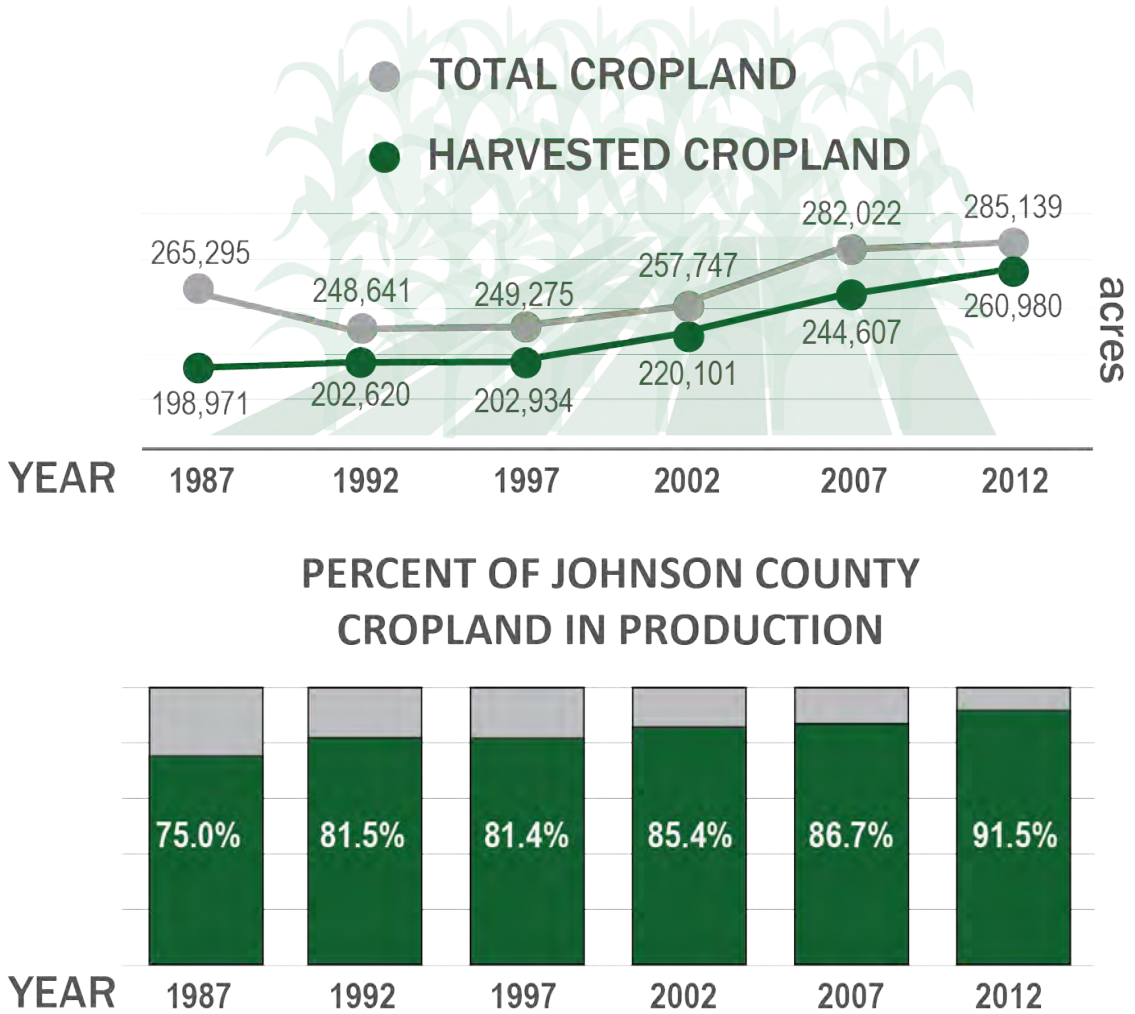


# AGRICULTURAL PROFILE

An agricultural profile reveals the influence of agriculture on a county's economy. The identity and economy of Johnson County's unincorporated areas are historically linked to agriculture. Today agriculture continues to be the primary land use in the unincorporated portions of the county. The U.S. Department of Agriculture's Census of Agriculture collects data about the agricultural industry throughout the country.

Figure 4 compares the acres of harvested cropland versus the total cropland available since the 1987 USDA Census. Overall, the share of harvested cropland has increased 31% over the past three decades with an increased level of production from 75% in 1987 to 91.5% in 2012. It is important to note that a wide range of factors impact the amount of harvested cropland in any given year, such as weather, so numbers tend to fluctuate.

Figure 4. Agricultural Trends (USDA Census): Cropland



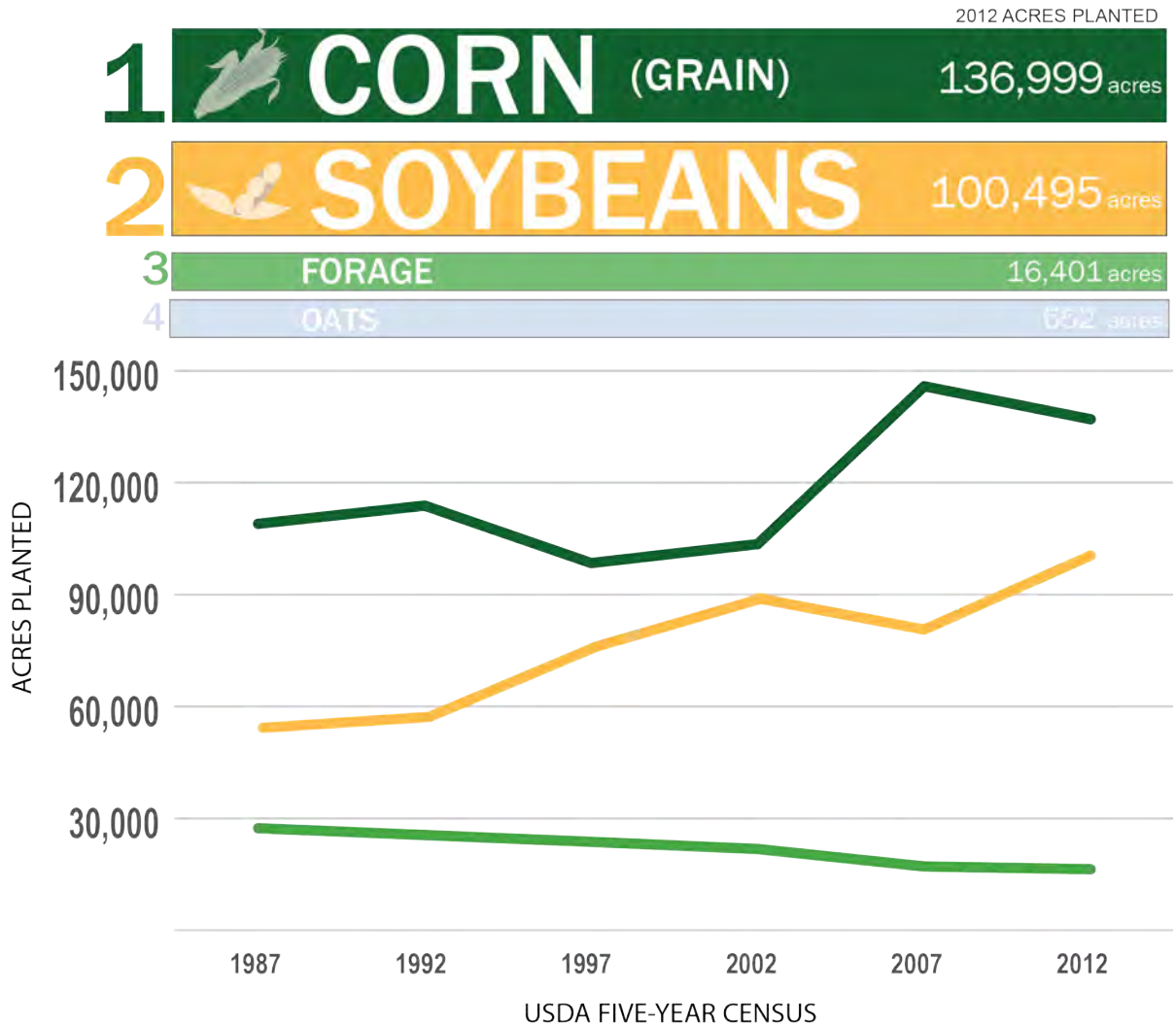
Source: USDA Five-Year Census (1987–2012)



The growth of the ethanol industry and international demand for commodities, especially soybeans and corn, has helped bring about a resurgence of the agriculture economy since 2007. Johnson County has seen much of its growth concentrated in these markets with increased acreage dedicated to soybean and corn for grain production. Corn bushel harvests hit an all-time high of 24.5 million bushels in 2007 and then declined 31.1% in 2012 to 16.9 million bushels. Soybean harvest yielded an all-time high in 2012 with 4.6 million bushels, up 19% from the 2007 USDA Census results. Agricultural censuses alternate collecting data in even and odd years, so crop rotation between soybeans and corn may create some fluctuation in the numbers.

Figure 5 displays the 25-year trend for corn, soybean, and forage, the top three harvested crops in the county, and highlights the top crops planted in 2012. Corn and soybeans have continued to dominate the market with steady growth of acres planted over the past 30 years. Markets including forage have experienced a decline during this period.

**Figure 5. Crop Trends (1987–2012)**



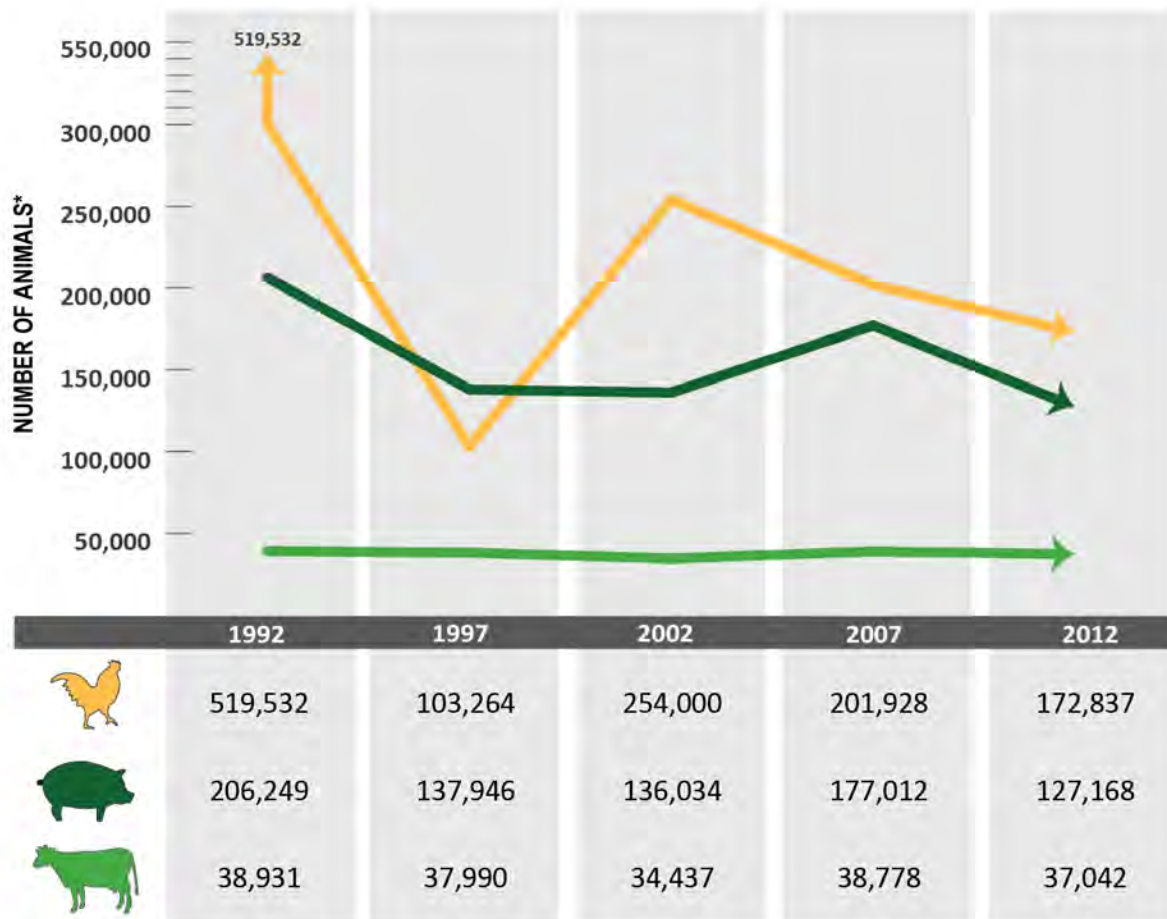
Source: USDA Five-Year Census (1987–2012)



Another way to evaluate agricultural trends is to examine the total land in farms. Based on USDA Five-Year Census data, land in farms has shown similar trends as total cropland and harvested crop land over the past 20 years, increasing from 299,120 acres in 2007 to 328,672 acres in 2012.

As seen in Figure 6, poultry (layers and broilers), hogs, and cattle and calves (beef and dairy) are the primary livestock raised in Johnson County. Poultry has fluctuated the most, experiencing an 80.1% decline between 1992 and 1997 with a slight rebound since then. Hog inventory has experienced a similar but more steady decline, from 206,249 head in 1992 to 127,168 in 2012. Overall, cattle and calves have remained relatively steady throughout these five-year census estimates.

**Figure 6. Livestock Trends (1992–2012)**



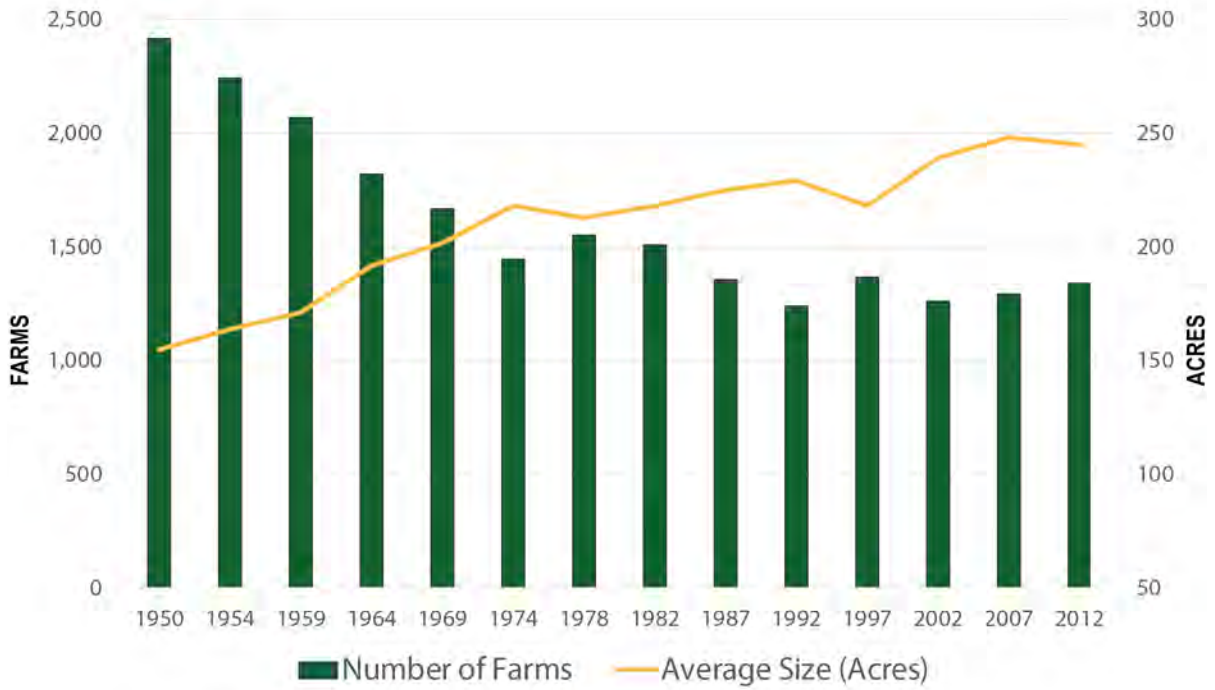
\*Chart not to scale.

Source: USDA Five-Year Census (1992–2012)



Although the number of farm operations has been declining since 1950, the average size of a farm operation has increased. Advances in technology and farm practices, along with land costs, contribute to this trend. In general, fewer farmers are needed to produce higher yields of certain crops.

**Figure 7. Number of Farm Operations & Average Size of Farm (USDA Census): 1950–2012**



Source: USDA Five-Year Census (1950–2012)





## Local Foods & Small Farm Operators

The food system has significant, daily impacts on the residents of Johnson County in terms of the environment, local economy, employment, transportation system, public health, and waste. For these reasons, Johnson County is involved in supporting and building local food systems to create a healthy, intact food system. Local food systems can lessen resource inputs, promote workers' rights, preserve the natural environment, and contribute to public health. The advancement of a local food system will enhance rural and urban economic development, increase access to healthy, clean food, and help build equity throughout the county.

To better support the local food system, in fall 2015, the Johnson County Board of Supervisors created a local foods position. The coordinator works closely with the board, county planners, and community partners to increase local food production and access in Johnson County.

**LOCAL FOOD** is food grown, processed, and consumed locally. What "locally" means is subject to interpretation and is a relative term, thus Johnson County will develop its definition of "local food" as the county proceeds with defining its local food system and writing its local food plan.

### *The Kalona Amish Community*

Johnson County is home to a large portion of the Kalona Amish community, which at approximately 1,200 members is often reported to be one of the largest Amish communities west of the Mississippi.

Farming is a way of life for the Kalona Amish community. Many operate standard cow dairies with a significant contingent of milking goats. Row crops are also a dominant farming activity for the Kalona Amish, who use tractors equipped with metal wheels for field work.

## JOHNSON COUNTY HISTORIC POOR FARM

### MASTER PLAN

In October 2016, the Johnson County Board of Supervisors selected HBK Engineering to complete Phase One and subsequently Phase Two of the Johnson County Historic Poor Farm Master Plan. For Phase One, HBK completed a site analysis at the farm that focused on three contributing historic buildings, current land uses, and previous planning efforts. For Phase Two, the consultants set a timeline and action steps related to concept development.

When implemented, the Johnson County Historic Poor Farm will be comprised of a county park focused on historic preservation, conservation, recreation, and charitable food production as well as incorporate a location for a permanent farm operation, farm incubator, and a housing component.



### ***Agritourism***

Agritourism, a growing trend, allows visitors to experience a working farm that generates supplemental income for the owner or operator through the creation of value-added activities and products. Agritourism can include farm stands or shops, self-pick orchards, farm stays, tours, on-farm classes, fairs, festivals, pumpkin patches, corn mazes, Christmas tree farms, wineries, youth camps, hunting or fishing, guest ranches, and more. Johnson County currently has several agritourism businesses serving local residents and visitors alike.

Agritourism also supports other Johnson County goals, including bolstering local food production, expanding a sustainable, resilient, and diverse economy, and preserving agricultural land. Supporting new agritourism opportunities will help Johnson County realize these goals while further empowering the entrepreneurial spirit of the agricultural sector.

## **AGRITOURISM IN JOHNSON COUNTY**



Source: <http://www.geyersovenbreadandpizza.com>

### ***Geyer's Oven Bread & Pizza***

The Geyer's farm, located south of Oxford off Black Hawk Ave SW, becomes a community gathering place every other Thursday evening throughout the summer months. Visitors are encouraged to bring lawn chairs or blankets and enjoy all-you-can-eat pizza in the garden.

### ***Cedar Ridge Vineyards***

Cedar Ridge Vineyards is a family-owned winery, distillery, and event space nestled in the beautiful countryside just outside Swisher. Award-winning wines and internationally recognized spirits are produced on-site at the only winery/distillery in Iowa.



Source: <https://www.crwine.com/>



[section 3.2]

## PRIORITIES: LOCAL ECONOMY

Priorities were determined based on public input, feedback from the Board of Supervisors, and input from the Comprehensive Plan Committee (CPC). A full summary of input is included in Appendix B contained in Volume 2 of this plan.

### PRIORITIES

While many of the major employment centers are within the incorporated areas, the strong agricultural traditions and recreational amenities continue to be driving factors for rural economic growth. A greater interest in how food is sourced and produced, along with the picturesque agricultural settings, plays a key role in growing agritourism.

#### Agricultural Economy

First, and foremost, supporting the agricultural economy is key to the future success of Johnson County. There has been an emphasis on using sustainable agricultural practices as the preferred method of growing Johnson County's food. Johnson County hopes to encourage greater use of best management practices, such as buffer strips and other sustainability practices to limit excess nutrients from entering local waterways.

#### Support for Local Food & Agritourism

Continuing the theme of agriculture, support for local foods in Johnson County is very strong. However, many local food producers face challenges unique to Johnson County when getting their farm started. While a small segment of the population, this group of farmers is important to the production of local produce and other products that many Johnson County residents say they want. Changes to the zoning code could alleviate some of these barriers and open new economic opportunities through agritourism, benefiting these farmers as well as the county as a whole.

#### Agricultural Exemption

Similar information on agricultural exemption is presented as a key issue in the plan introduction.

Per the Iowa State Code (chapter 335, section 335.2), no zoning regulation or ordinance shall be applied "to land, farm houses, farm barns, farm outbuildings or other buildings or structures which are primarily adapted, by reason of nature and area, for use for agricultural purposes, while so used." The property is exempt from all zoning and building permit regulations (see Code of Iowa 331.304.3b). In Johnson County, at the time of the 2018 comprehensive planning process, properties must be 40 or more acres, zoned agriculturally, and used agriculturally to gain agricultural exemption. As a result, a Johnson County farmer who does not operate on greater than 40 acres is required to meet the requirements of the zoning code and get building permits for all structures. Farmers on more than 40 acres are not subject to zoning and building regulations.

Even though the State exempts farms from zoning and building regulations, it has provided few guidelines as to what should be eligible for agricultural exemption. Johnson County's current agricultural exemption rule has proven to be a successful tool in preserving farmland and limiting residential sprawl. At the same time, it creates a barrier for farmers who need fewer acres and would like to reside on the property. The County will explore strategies to change the agricultural exemption to accommodate a wider variety of farms.



## Concentrated Animal Feeding Operation (CAFO)

There are strong feelings for and against CAFOs in Johnson County. Of primary concern are the water quality and other environmental impacts that may be related to these operations as well as the confined conditions of the animals. Advocates in support of CAFOs state that these concerns are alleviated when facilities operate according to best practices and that confinement operations are an efficient and effective means to provide animal products to a growing population. As of November 2017, the Iowa Department of Natural Resources' publicly available database on Animal Confinements lists 56 permitted operations within Johnson County, of which 46 are shown as "active." There are also an unknown number of small animal feeding operations, because permitting is not required.

On August 11, 2016, the Johnson County Board of Supervisors sent a letter to the Iowa Department of Natural Resources expressing concerns regarding the regulation of CAFOs. The Board also passed a resolution in support of a statewide moratorium on permits for new CAFOs in 2017.

## Commercial & Industrial Development

Johnson County has long held the belief that higher intensity commercial and industrial development should be located in or adjacent to cities, in areas where facilities can be served by urban utilities and are near the local workforce. This sentiment remains; however, there is interest in siting lower intensity nonresidential uses in rural areas with existing commercial or industrial uses, near unincorporated villages, at major intersections, and within the two-mile fringe areas of the incorporated cities.



[section 3.3]

# GOALS, STRATEGIES & ACTION STEPS: LOCAL ECONOMY

All goals, strategies, and action steps were developed based on the priorities discussed above and the information collected through the public input process, input from the Comprehensive Plan Committee (CPC), and feedback from the Board of Supervisors. To see a summary of input (including survey results) regarding Local Economy, please see Appendix B contained in Volume 2 of this plan.

**DEFINITION:** Below are definitions of each term and how they will be used in the Implementation Plan section of the comprehensive plan.

- **Goal:** A desired outcome based on the values of the public and elected officials.
- **Strategy:** The approach you take to achieve a goal.
- **Action Step:** The specific steps you take to achieve a strategy.

**FORMAT:** Each goal (e.g. ECON 1) is presented with corresponding strategies (e.g. Strategy 1, Strategy 2) and action steps (e.g. Action 1, Action 2).

**LOCAL ECONOMY 1 – This is an example of a Goal’s formatting.**

**Strategy 1 – This is an example of a Strategy’s formatting.**

- Action 1 – This is an example of an Action Step’s formatting.
- Action 2 – This is an example of an Action Step’s formatting.
- Action 3 – This is an example of an Action Step’s formatting.

**LOCAL ECONOMY 1 – Foster a diverse and resilient local economy.**

**Strategy 1 – Support industries that complement and enhance the existing local economy.**

- Action 1 – Identify targeted industries that support a livable wage and a clean energy economy.

*WHAT IS THE **CLEAN ENERGY ECONOMY**? The Pew Charitable Trusts (2009) states: “A clean energy economy generates jobs, businesses and investments while expanding clean energy production, increasing energy efficiency, reducing greenhouse gas emissions, waste and pollution, and conserving water and other natural resources.” Pew additionally explains that this economy cuts across five categories: (1) Clean Energy; (2) Energy Efficiency; (3) Environmentally Friendly Production; (4) Conservation and Pollution Mitigation; and (5) Training and Support.*

**Strategy 2 – Accommodate rural businesses that provide employment and consumer opportunities that improve the livability of Johnson County in appropriate areas.**

- Action 1 – Develop agritourism zoning regulations to allow greater flexibility for value-added agriculture activities.
- Action 2 – Develop neighborhood commercial zoning regulations to allow low-intensity commercial activities.
- Action 3 – Support efforts to expand telecommunication infrastructure for rural areas (e.g. high-speed Internet).
- Action 4 – Support the local food industry in Johnson County.

WHAT IS A **NEIGHBORHOOD COMMERCIAL ZONE**? This zone would allow small-scale and low-intensity retail and service uses that support nearby residential areas including, but not limited to, beauty salons, tourist shops, office space, and repair shops.

**Strategy 3 – Promote the county’s natural amenities and livable communities to attract new economic activities.**

- Action 1 – Use economic development and tourism promotion organizations as a resource to promote Johnson County.
- Action 2 – Highlight quality-of-life rankings and other awards on the Johnson County website.
- Action 3 – Partner with local cities and regional entities to promote and recruit targeted industrial clusters that benefit the local economy and support the quality of life in Johnson County.

WHAT ARE **TARGETED INDUSTRY CLUSTERS**? An industry cluster is a group of firms, and related economic institutions, that are located near one another and that draw productive advantage from their proximity and connections. According to the Iowa City Area Development Group (ICAD), the targeted industry clusters for Johnson County include:

- *Advanced Manufacturing*
- *Educational Services*
- *Autonomous Vehicle Systems*
- *Information Technologies*
- *Biotechnology*
- *Natural Products*
- *Data Centers*
- *Renewable Energy*

**Strategy 4 – Encourage partnerships between business and educational institutions to advance job skills and promote labor retention.**

- Action 1 – Explore using County facilities as resource centers to connect businesses with local experts.
- Action 2 – Promote the resources provided by the University of Iowa, Kirkwood Community College, and other major institutions to attract and retain businesses.
- Action 2 – Coordinate with community school districts in the county to provide and promote educational opportunities for primary and secondary students.



**LOCAL ECONOMY 2 – Ensure that new and expanding commercial and industrial uses will follow the County’s adopted Economic Development Plan.**

**Strategy 1 – Update and maintain an Economic Development Plan for unincorporated Johnson County.**

- Action 1 – Clearly define Johnson County’s role in economic development.
- Action 2 – Include Economic Development Areas in the Future Land Use Map.
- Action 3 – Obtain a Target Industry Analysis.

**Strategy 2 – Regularly review and update the Economic Development Plan and its policies.**

- Action 1 – Review economic development best management practices and economic development areas on the Future Land Use Map at least every five years upon adoption.

**LOCAL ECONOMY 3 – Encourage sustainable agricultural activities.**

**Strategy 1 – Explore methods to accommodate smaller farming operations.**

**Strategy 2 – Support farmers who wish to maintain and expand agricultural activities in accordance with the goals of this plan.**

- Action 1 – Support local, state, and federal programs designed to assist sustainable farming operations.
- Action 2 – Support conservation and natural resource management programs.

**Strategy 3 – Promote and support local food and small farm operations.**

- Action 1 – Continue to provide staff support for local food and agritourism activities.
  - Action 2 – Continue to support resident engagement to improve discussion and action on food and agricultural initiatives in Johnson County.
  - Action 3 – Support efforts to develop infrastructure and programs that encourage public institutions, restaurants, and other entities to purchase more locally grown food.
  - Action 4 – Explore flexible zoning regulations to encourage local food production.
  - Action 5 – Explore food hub and food enterprise options that include food processing, packaging, and storage.
  - Action 6 – Collaborate with cities to encourage food production opportunities, such as community gardens, within city limits.
- Strategy 3 – Promote and support local food and small farm operations.**

**Strategy 4 – Support the development of utility scale solar in Johnson County.**



**LOCAL ECONOMY 4 – Provide opportunities for sustainable commercial and industrial activities that enhance livability and are compatible with surrounding land uses.**

**Strategy 1 – Revise the site plan review process to address varying levels of intensity.**

- Action 1 – Incorporate scalable rules for size and intensity in site plan review to allow for appropriate review of smaller developments.
- Action 2 – Create and use a matrix to provide multiple ways to achieve compliance with site plan regulations.

**Strategy 2 – Direct large-scale commercial and industrial development projects to the cities and Urban Growth Areas, where utilities, services, transportation, and other infrastructure are (or can be) readily available.**

- Action 1 – Coordinate with local and regional business and economic development organizations.

**Strategy 3 – Direct smaller-scale, less-intensive commercial and industrial development projects to cities, unincorporated villages, or economic development areas as identified in the Future Land Use Map (see Chapter 5 Land Use).**

- Action 1 – Identify and review development opportunities within the unincorporated villages.
- Action 2 – Engage residents and update village plans accordingly.





# IMPLEMENTATION: LOCAL ECONOMY

## IMPLEMENTATION TABLE

The implementation table presents the strategies and action steps developed for each of the plan elements: Sustainability, Local Economy, Infrastructure and Amenities, and Land Use. There are three components in each table: Strategy/Action Step, Timeframe, and Collaborating Partners.

### Goals, Strategies & Action Steps

The goals, strategies, and action steps presented are the same as those presented earlier in this chapter under “Priorities and Goals.”

### Timeframe

An approximate timeframe to complete each action step was determined by staff evaluation. This evaluation considered existing or future funding capacity, expertise and technical capacity of existing staff, and the potential for acquiring additional expertise or technical capacity. The assigned timeframes are estimates; it may take less or more time for any given action step to be completed. Here are the four timeframes:

- Ongoing: Existing strategies that are on a regular cycle or will continue
- Short-term: < 2 years
- Mid-term: 2 to 5 years
- Long-term: > 5 years

### Collaborating Partners

Implementation of the plan strategies involves the actions and decisions of entities other than county government. The success of the comprehensive plan’s vision is dependent on the County’s ability to identify these partners, reach out, and maintain ongoing communication and coordination. The implementation tables identify suggested collaborating partners; additional organizations may be identified over time and partners that are not listed are not excluded from future collaboration. For policy and ordinance development, there will be ample opportunity for input through public hearings and meetings.

The following key works for all implementation tables; some abbreviations may not appear in every chapter:

- **BOS:** Johnson County Board of Supervisors
- **CSD:** Community School Districts
- **CVB:** Iowa City/Coralville Convention & Visitors Bureau
- **ECICOG:** East Central Iowa Council of Governments
- **EMA:** Johnson County Emergency Management Agency
- **FEMA:** Federal Emergency Management Agency
- **FSA:** Farm Service Agency
- **ICAD:** Iowa City Area Development Group
- **IDNR:** Iowa Department of Natural Resources
- **I-DOT:** Iowa Department of Transportation
- **IT:** Johnson County Information Technology
- **MPOJC:** Metropolitan Planning Organization of Johnson County
- **NRCS:** Natural Resources Conservation Service
- **PDS:** Johnson County Planning, Development & Sustainability
- **SEATS:** Johnson County SEATS Paratransit
- **SWCD:** Johnson County Soil & Water Conservation District
- **WMA:** Watershed Management Authorities



<b>ECON 1 – Foster a diverse and resilient local economy.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Support industries that complement and enhance the existing local economy.</b>		
Action 1 – Identify targeted industries that support a livable wage and a clean energy economy.	Long-term	BOS, cities, ICAD
<b>Strategy 2 – Accommodate rural businesses that provide employment and consumer opportunities that improve the livability of Johnson County in appropriate areas.</b>		
Action 1 – Develop agritourism zoning regulations to allow greater flexibility for value-added agriculture activities.	Short-term	PDS
Action 2 – Develop neighborhood commercial zoning regulations to allow low-intensity commercial activities.	Short-term	PDS
Action 3 – Support efforts to expand telecommunication infrastructure for rural areas (e.g. high-speed Internet).	Ongoing	PDS, Secondary Roads, telecom providers
Action 4 – Support the local food industry in Johnson County.	Ongoing	BOS, PDS, Food Policy Council
<b>Strategy 3 – Promote the county’s natural amenities and livable communities to attract new economic activities.</b>		
Action 1 – Use economic development and tourism promotion organizations as a resource to promote Johnson County.	Ongoing	BOS, cities, ICAD, CVB
Action 2 – Highlight quality-of-life rankings and other awards on the Johnson County website.	Ongoing	BOS, IT
Action 3 – Partner with local cities and regional entities to promote and recruit targeted industrial clusters that benefit the local economy and support the quality of life in Johnson County.	Long-term	BOS, cities, ICAD
<b>Strategy 4 – Encourage partnerships between business and educational institutions to advance job skills and promote labor retention.</b>		
Action 1 – Explore using County facilities as resource centers to connect businesses with local experts.	Ongoing	BOS, PDS, ICAD, CSD, Food Policy Council
Action 2 – Promote the resources provided by the University of Iowa, Kirkwood Community College, and other major institutions to attract and retain businesses.	Ongoing	BOS, cities, ICAD, U-Iowa, Kirkwood
Action 2 – Coordinate with community school districts in the county to provide and promote educational opportunities for primary and secondary students.	Ongoing	CSD



<b>ECON 2 – Ensure that new and expanding commercial and industrial uses will follow the county’s adopted Economic Development Plan.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Update and maintain an Economic Development Plan for unincorporated Johnson County.</b>		
Action 1 – Clearly define Johnson County’s role in economic development.	Mid-term	BOS
Action 2 – Include Economic Development Areas in the Future Land Use Map.	Short-term	PDS
Action 3 – Obtain a Target Industry Analysis.	Long-term	ICAD
<b>Strategy 2 – Regularly review and update the Economic Development Plan and its policies.</b>		
Action 1 – Review economic development best management practices and economic development areas on the Future Land Use Map at least every five years upon adoption.	Mid-term/ Ongoing	PDS
<b>ECON 3 – Encourage sustainable agricultural activities.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Explore methods to accommodate smaller farming operations.</b>		
<b>Strategy 2 – Support farmers who wish to maintain and expand agricultural activities in accordance with the goals of this plan.</b>		
Action 1 – Support local, state, and federal programs designed to assist sustainable farming operations.	Ongoing	BOS, USDA, NRCS, IDNR, FSA, agricultural/farmer organizations
Action 2 – Support conservation and natural resource management programs.	Ongoing	BOS, Conservation, NRCS
<b>Strategy 3 – Promote and support local food and small farm operations.</b>		
Action 1 – Continue to provide staff support for local food and agritourism activities.	Short-term/ Ongoing	BOS, PDS, Food Policy Council
Action 2 – Continue to support resident engagement to improve discussion and action on food and agricultural initiatives in Johnson County.	Ongoing	BOS, PDS, Food Policy Council
Action 3 – Support efforts to develop infrastructure and programs that encourage public institutions, restaurants, and other entities to purchase more locally grown food.	Mid-term	BOS, PDS, Food Policy Council
Action 4 – Explore flexible zoning regulations to encourage local food production.	Mid-term	PDS, Food Policy Council
Action 5 – Explore food hub and food enterprise options that include food processing, packaging, and storage.	Long-term	BOS, PDS, Food Policy Council, ICAD
Action 6 – Collaborate with cities to encourage food production opportunities, such as community gardens, within city limits.	Ongoing	cities, Food Policy Council
<b>Strategy 4 – Support the development of utility scale solar in Johnson County.</b>		



<b>ECON 4 – Provide opportunities for sustainable commercial and industrial activities that enhance livability and are compatible with surrounding land uses.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Revise the site plan review process to address varying levels of intensity.</b>		
Action 1 – Incorporate scalable rules for size and intensity in site plan review to allow for appropriate review of smaller developments.	Short-term	PDS
Action 2 – Create and use a matrix to provide multiple ways to achieve compliance with site plan regulations.	Short-term	PDS
<b>Strategy 2 – Direct large-scale commercial and industrial development projects to the cities and Urban Growth Areas, where utilities, services, transportation, and other infrastructure are (or can be) readily available.</b>		
Action 1 – Coordinate with local and regional business and economic development organizations.	Ongoing	BOS, PDS, cities, ICAD
<b>Strategy 3 – Direct smaller-scale, less-intensive commercial and industrial development projects to cities, unincorporated villages, or economic development areas as identified in the Future Land Use Map (see Chapter 5 Land Use).</b>		
Action 1 – Identify and review development opportunities within the unincorporated villages.	Short-term	PDS
Action 2 – Engage residents and update village plans accordingly.	Mid-term	BOS, PDS, village communities



Chapter 4

# Infrastructure & Amenities

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# Infrastructure & Amenities

# 4

## JOHNSON COUNTY

[section 4.1]

### PROFILE

Unlike traditional city government, Johnson County does not provide public water supply, sanitary sewer, and storm sewer. It is the responsibility of the homeowner and/or developer to ensure that properly permitted potable water and waste water systems are in place. Several private or cooperative utility providers have the ability to provide gas and electricity infrastructure, at cost to the developer or property owner, to development or building sites in the county. Landline telephone service, at the time of this plan publication, is readily available; however, fiber optic-based telecommunications services such as Internet and cable television infrastructure are not readily available in all parts of the rural areas.

The Johnson County Secondary Roads Department is responsible for maintaining the existing public transportation network. It is generally the responsibility of the development community to build and maintain a network of private roads that provide access to residential and commercial development that do not directly front onto a public road.

This chapter begins with an inventory of existing utilities, services, and infrastructure provided by municipal, Johnson County, and regional systems and private service providers. The latter half of this section focuses on the parks and trails that provide recreational amenities for residents and visitors alike.



## PUBLIC & PRIVATE INFRASTRUCTURE

Access to potable water supply, wastewater, gas, and electricity is essential to siting any development and influences the pattern and pace of future development.

Given projected growth in population, housing, and jobs, Johnson County must consider how transportation infrastructure is provided and how potable water and wastewater services are permitted and regulated. This chapter's goals and strategies will directly impact economic development, land use, and sustainability.

### Potable Water & Wastewater Treatment

Johnson County does not provide potable water and wastewater services. Residential, commercial, and industrial development in rural Johnson County is primarily served by potable water wells and private septic systems. In some cases, centralized septic systems are utilized to treat an entire subdivision of homes or a collection of businesses. Depending on scale of development, the Johnson County Public Health Department or the Iowa Department of Natural Resources is charged with ensuring the safety and viability of potable water and wastewater systems located in the unincorporated areas of Johnson County.

### Electricity & Natural Gas Utility Services

Electricity and natural gas are provided to Johnson County by MidAmerican Energy Company, Alliant Energy/Interstate Power and Light Company, and a variety of Rural Electric Cooperatives (REC). The RECs include Linn County REC, Eastern Iowa REC, Farmers Electric Cooperative, and other RECs with small amounts of territory.

In April 2016, MidAmerican Energy announced a goal to provide 100% of their electricity via renewable energy sources, primarily wind. Alliant Energy has also committed itself to transforming its generation profile to meet future customer needs in a sustainable way. Alliant Energy and MidAmerican Energy are retiring traditional electrical power generation plants in favor of wind energy facilities. Locally, Farmers Electric Cooperative, an energy services provider in southwest Johnson County, installed a nearly 2-megawatt solar field by 2016 just south of the village of Frytown. The solar field produces enough energy to power more than 200 homes, making Farmers Electric Cooperative a leader in solar electricity generation in Iowa.

### Telecommunications

Land-based telecommunication infrastructure is a private utility service available through multiple providers throughout Johnson County. According to Connect Iowa, a statewide initiative to advocate for improved broadband service, incorporated cities in Johnson County have access to 100 Mbps to 1 Gbps Internet speed capacities while the vast majority of the rural, unincorporated areas of Johnson County only have access to 25 Mbps land-based Internet service. Some parts of the county have access to land-based Internet service provisions up to 50 Mbps. Telecommunication capacity is a significant source of quality of life and economic viability for Johnson County, its residents, and business community. As of 2017, it is more viable for rural county residents to utilize satellite or cellular-based Internet service providers.

Co-working spaces could be a way to provide higher-speed telecommunications infrastructure to residents and businesses in the rural area.



## TRANSPORTATION NETWORK

A well-planned and maintained transportation network provides access for people and goods to move freely throughout the county. Not only does a transportation network include highways and local roads, pedestrian and bike trails help provide mobility and connectivity, and reduce automobile dependence. Johnson County's strategic plan states support for rail and autonomous vehicles as new infrastructure and technology advance. Federal Functional Classifications include interstate, major and minor arterials, major and minor collectors, and local roads. For more information on these road classifications, see Appendix A.

### Traffic Volumes

The Iowa Department of Transportation provides traffic data for Johnson County every 3–4 years. The 2014 data are represented as the average annual daily traffic (AADT) count or, more simply, the average number of vehicles that might use that road on any given day, shown in Map 1. Some of the highlights are provided below:

- **I-80/I-380:** 57,770 trips on I-380 north of I-80 corridor. This figure drops to 25,300 just south of the I-80/I-380 interchange with a majority of the traffic heading east (57,500) rather than west (35,800) on I-80.
- **Dubuque Street (North of Iowa City):** 6,900 trips per day decreases to 4,560 north of Rustic Ridge Road as it enters North Liberty. As North Liberty continues to be one of the fastest-growing cities in Iowa, and with the addition of the new Liberty High School, traffic on Dubuque Street will increase.
- **Prairie du Chien Road:** 2,420 trips per day quickly declines to 1,470 north of Linder Road and then 980 north of the Newport Road intersection. Prairie du Chien Road provides access to a large growth area and much residentially zoned ground.
- **Newport Road:** 1,050 trips per day from Prairie du Chien Road, then decreases to 990 trips per day at the intersection with Sugar Bottom Road. The southern part of Newport Road serves as primary access to a residential growth area, and the northern part of the road provides access to Iowa Highway 1.
- **Iowa Highway 1 (North):** 10,200 to Newport Road, decreases to 8,800 through Solon and 5,600 north of town. Solon is a growing community with many residents working in the metro area.
- **Iowa Highway 1 (South):** Traffic peaks at 23,100 trips from South Riverside Drive in Iowa City west to the Highway 218 on-ramp, where traffic drops to 7,600 trips per day and 5,100 south through the unincorporated areas to the county boundary. This highway is a major gateway to Iowa City and also serves as a primary collector for several villages and farm-to-market roads.
- **Sandy Beach Road:** 2,350 trips at the northern most point, decreases to 1,810 past Mohawk Road and down to 290 where it turns east at Lake Manor Road (1,070 trips). Sandy Beach Road is the primary collector of established residential areas that are north of the Coralville Reservoir/Iowa River and south of Shueyville.





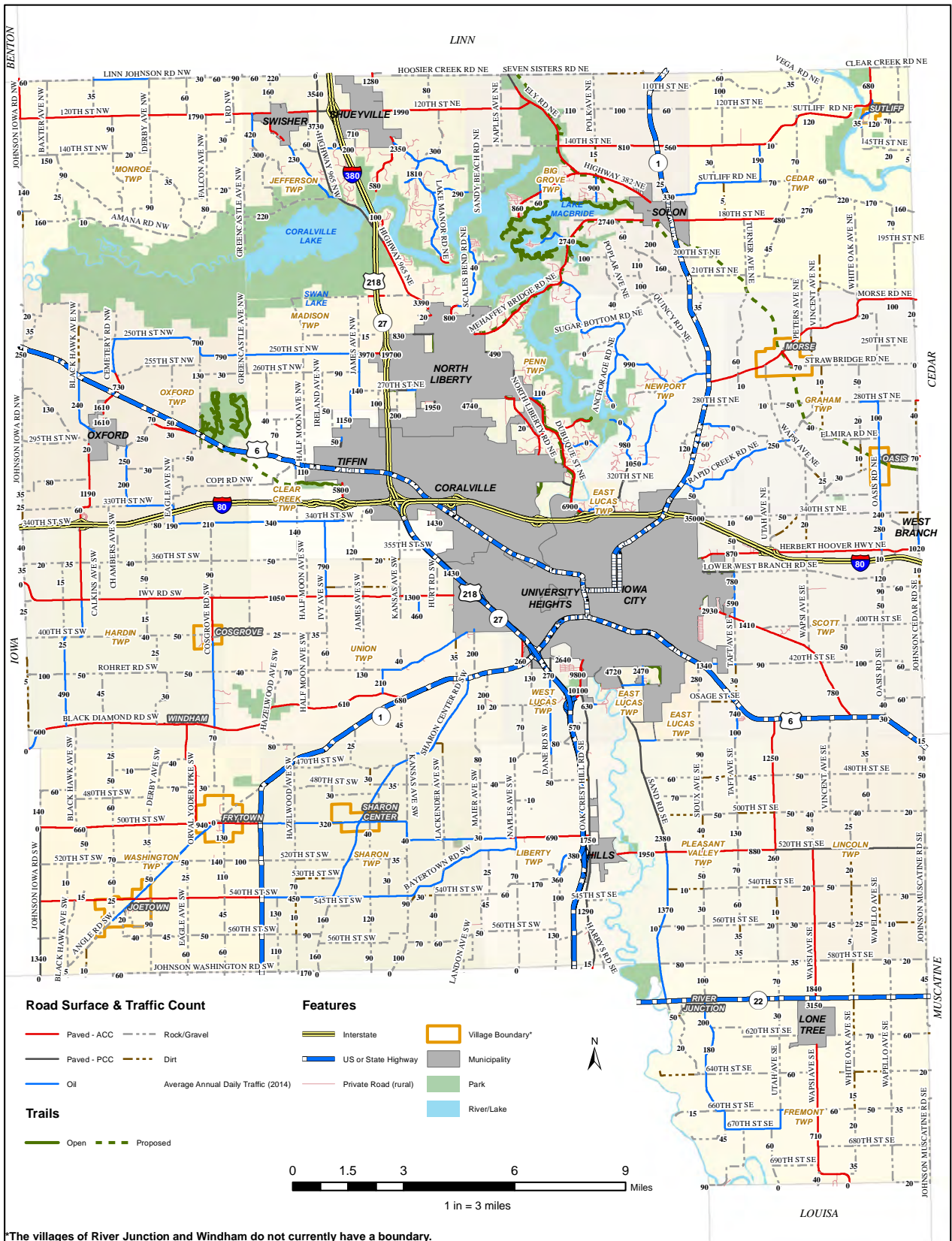
Map 1. Average Annual Daily Travel (AADT): County Roads Only (2014)

PROFILE

PRIORITIES

GOALS

IMPLEMENTATION



Data Source: Iowa Department of Transportation



- **US Highway 6 (West):** A total of 4,550 trips are counted west of Tiffin with a decline to 3,460 beyond the Augusta Avenue/Upper Old Highway Road intersection north of Oxford. Traffic is expected to increase on this road with new development in Tiffin.
- **US Highway 6 (East):** The section of road southeast of Iowa City sees 5,900 trips from the Iowa City corporate boundary heading east, declines to 3,560 trips at the Utah Avenue intersection, and then increases to 4,160 trips further east from the intersection with American Legion Road to the county border.

## Road Performance Standards

Road Performance Standards guide decisions on roads that are at or near peak traffic levels. Limits to development ensure that new development will not overload the road system. The Johnson County Unified Development Ordinance includes Road Performance Standards. The standards provide guidelines based on the type of public road that would provide access to a proposed subdivision: dirt, gravel, oiled chip seal, or paved concrete. The North Corridor has many oiled chip sealed roads and has been the primary location for rural residential development from 2002 to 2017. Due to relatively high AADT counts in this more densely developed area, the Road Performance Standards regulation plays a role in slowing the creation of more residential lots in much of what is recognized as a current growth area. As of November 2017, the Road Performance Standards read as follows:

*Subdivisions shall not be approved on oiled chip seal roads with a projected traffic volume greater than two thousand (2,000) vehicles per day, unless improvement of said road is scheduled within the next two years of the adopted Johnson County Five Year Road Improvement Plan.*

*Johnson County Unified Code, Chapter 8:1.23(E)(12)(c)(i)*

*Subdivisions shall not be approved on gravel roads with a projected traffic volume greater than three hundred (300) vehicles per day, unless improvement of said road is scheduled within the next two years of the adopted Johnson County Five Year Road Improvement Plan.*

*Johnson County Unified Code, Chapter 8:1.23(E)(12)(b)(i)*

As of November 2017, in order to calculate a road's projected traffic count, the Road Performance Standards consider existing road count, projected traffic from platted and vacant lots, and projected traffic from zoned and developable property.

Once an oiled chip sealed road has a projected traffic volume greater than 2,000 vehicles per day or a gravel road traffic volume is greater than 300 projected vehicles per day then no new buildable lots will be approved "unless improvement of said road is scheduled within the next two years of the adopted Johnson County Five Year Road Improvement Plan."



## ALTERNATIVE TRANSPORTATION OPTIONS

### Public Transit

Johnson County provides a paratransit ride service through its SEATS department. Senior citizens, people with disabilities, and others who may otherwise find it difficult to conduct daily transactions are offered these services. SEATS transit vehicles regularly transport people to healthcare appointments, grocery stores, and other destinations, providing clients with a necessary and reassuring degree of freedom.

While there are limited transit options for rural areas, Iowa City, Coralville, and the University of Iowa Cambus provide fairly extensive bus service in the metro area.

In addition, as noted above, the County is interested in the feasibility of local/regional rail.

### Bicycle Commuters

Johnson County has been proactive in planning and constructing bicycle amenities, an effort that has helped translate into more than 18,000 bicycle commuters within the county (2015 ACS). Here are several improvements for bicycle commuting:

- 2012 Johnson County Bicycling and Multi-Use Trails Plan produced by Metropolitan Planning Organization of Johnson County (MPOJC).
- In 2008, by a 61% vote, voters approved the county Conservation Bond Fund to support the investment of \$20 million over 20 years for conservation, recreation, and trails.
- Johnson County Board of Supervisors budgets hundreds of thousands of dollars annually for trail maintenance and construction.
- Efforts are regularly made to provide paved shoulders and other bicycle accommodations on newly improved road infrastructure.
- Installation of bike route signs to destinations including the Coralville Reservoir, Sugar Bottom Recreation Area, City of Hills, Scott Church Park, and Sutliff Bridge.

These accomplishments demonstrate the County's past and ongoing support for bicycling not only as a recreational amenity, but as a practical mode of transportation.

## OTHER STUDIES

### I-380 Planning Study

The Iowa DOT is studying the Interstate 380 corridor from North Liberty to U.S. Highway 30 in Cedar Rapids. The purpose of the planning study is to determine whether the current infrastructure will meet the demands over the next 30 years and to identify the potential improvements necessary in the foreseeable future. The study will evaluate the safety, capacity, infrastructure, and other topics regarding I-380. The I-380 Planning Study process occurred simultaneously to this plan, and was anticipated to be completed by spring 2018.



## Future Forward: 2045 Long-Range Transportation Plan

The Metropolitan Planning Organization of Johnson County (MPOJC) is the planning organization for the urbanized area, which, under the guidance of a public policy board, provides leadership, expertise, and services to member communities and agencies in Johnson County.

Federal legislation requires any urbanized area with a population over 50,000 to have a planning organization such as MPOJC to ensure that existing and future expenditures of federal funding for transportation projects and programs are based on the continuing, cooperative, and comprehensive (“3-C”) planning process.

MPOJC adopted in 2017 its long-range transportation plan, a requirement for securing state and federal funding for transportation projects. The Future Forward 2045 Long-Range Transportation Plan will help guide metropolitan area decision making regarding transportation improvements and investments extending 25 years into the future. The plan considers all modes of transportation — car, truck, freight, public transit, pedestrian, and bicycle — and makes specific recommendations for transportation projects and funding sources.

The Future Forward 2045 Plan was developed with an emphasis on nine guiding principles, an increased focus on multimodal and active transportation, and the development of performance measures to better assess how the transportation network is performing now and in the future.

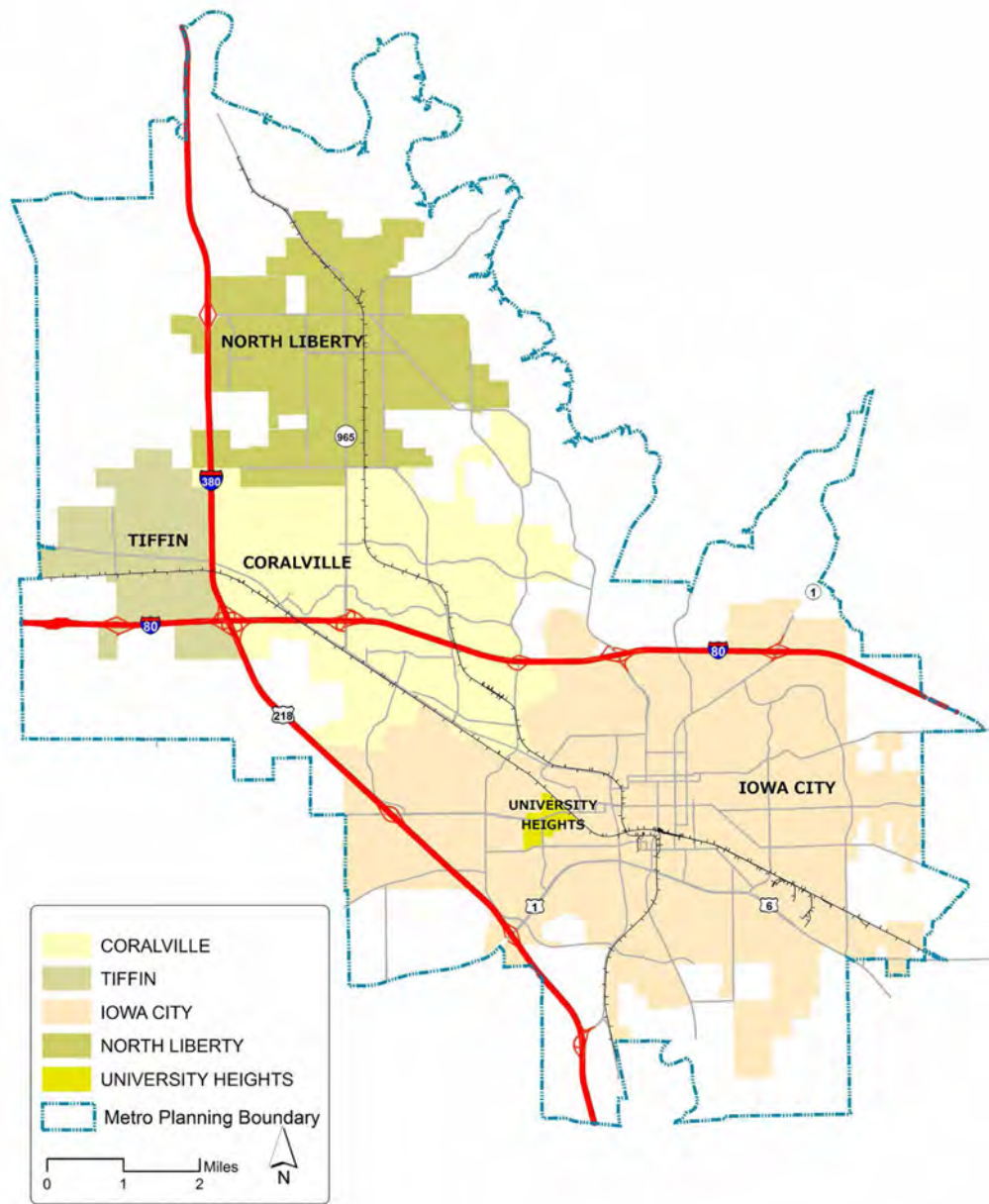
The guiding principles include:

- **Economic opportunity:** support growth, innovation, job creation, and productivity
- **Environment:** preserve and protect our natural resources, including land, water, and air quality
- **Quality of life:** enhance livability and create vibrant and appealing places that serve residents throughout their lives
- **System preservation:** maintain in good and reliable condition
- **Efficiency:** build a well-connected network and coordinate land use patterns to reduce travel demand, miles traveled, and fossil fuel consumption
- **Choice:** offer multimodal transportation options that are affordable and accessible
- **Safety:** design and maintain to enhance the safety and security of all users
- **Health:** invite and enhance healthy and active lifestyles
- **Equity:** provide access and opportunity for all people and neighborhoods

While this plan impacts a majority of Johnson County residents, only the unincorporated areas of Johnson County that are adjacent to the metro area are included within MPOJC’s service area. These federal funding dollars focus on the improvements of the interstate and highway systems within the urbanized areas of Johnson County (Figure 8). As a result, most of unincorporated Johnson County is ineligible for this funding.



**Figure 8.** Metropolitan Planning Organization of Johnson County: Service Area



Source: *Future Forward 2045 Long-Range Transportation Plan (2017)*



## PARKS, RECREATION & TRAILS

Quality-of-life amenities such as parks, recreation areas, and trails are a vital part of what attracts people to Johnson County. These amenities play a role in economic development as more firms are looking to locate in areas where their employees want to live, work, and play. This section highlights some of the significant park and recreational attractions located throughout Johnson County.

### Parks & Recreation Areas

Johnson County has a wide variety of recreation and conservation areas for residents and visitors to experience. Details can be found in Appendix A.

- **Johnson County Conservation:** F.W. Kent Park, Cedar River Crossing, Frytown Conservation Area, Ciha Fen Preserve, Clear Creek Area, Hills Access, River Junction Access, Walker Park, Sutliff Access, Pechman Creek Delta, Solon Prairie, Scott Church Park
- **Iowa DNR:** Lake Macbride State Park, Williams Prairie State Preserve
- **US Army Corps:** Macbride Nature Recreation Area, Coralville Lake and Reservoir

### Wildlife Management Areas

In addition to great county and state parks, Johnson County has six wildlife management areas. Wildlife management areas provide basic public use facilities such as parking lots and boat ramps. Portions of these areas may be designated as refuge. Certain uses are restricted that may interfere with management goals and objectives. Major areas include Hawkeye (13,708 acres), Redbird Farms (464 acres), and Jerry Quinlan wildlife management area (118 acres).

### Bicycle & Pedestrian Facilities

Johnson County is fortunate to have a very robust system of bicycle and pedestrian facilities including widened sidewalks and shoulders, and off-road shared-use paths. Currently there are just under 146 miles of off-road paths throughout Johnson County with an additional 82 miles of widened sidewalks, 41 miles of paved shoulder, and 9.7 miles of designated bike lanes.



*LEFT: Clear Creek Trail offers several miles for county residents and visitors to enjoy by foot or bike. RIGHT: Clear Creek Trail west of Tiffin. (Source: Johnson County Conservation)*



[section 4.2]

## PRIORITIES: INFRASTRUCTURE & AMENITIES

Priorities were determined based on public input, feedback from the Board of Supervisors, and input from the Comprehensive Plan Committee (CPC). A full summary of input is included in Appendix B contained in Volume 2 of this plan.

### Provision of Infrastructure & Utilities

Potable water and waste water systems are site specific. While energy and telecommunication utilities are provided by private companies or cooperatives, the County encourages the development of forward-thinking infrastructure such as utility scale solar and universally available high-speed internet in Johnson County. Johnson County's role in permitting and reviewing these elements is twofold: 1) to assure existing services can be made available to new buildable lots before approving a development application, and are done so per county and state law for public health, safety and welfare; and 2) to support applications that seek to responsibly establish or expand these infrastructure and utility facilities in the county.

### Road Performance Standards

The current Road Performance Standards have been both successful and problematic. They have ensured that existing road conditions are considered before allowing additional development and subsequent traffic, but the standards in place at the time of this Comprehensive Plan adoption may have restricted development in recognized growth areas.

Updating the standards to better reflect current state and federal traffic design and safety guidelines can help balance growth demands with the necessity of maintaining safety on rural roads. Reviewing traffic patterns within areas designated for non-agricultural uses on the Future Land Use Map areas may help the Board of Supervisors prioritize future road projects.

### Trails to the Future

Trails are a high priority for many Johnson County residents. Not only do trails provide a quality-of-life amenity, trails also create better connectivity among rural subdivisions and provide another means of transportation for a growing group of people who choose to commute via bicycle. On the other hand, there are some residents who do not see the value in expanding the rural trail network and would rather see those funds invested in other road improvements. In fact, no money that can legally be spent on roads is diverted to trails. Johnson County budgets the maximum allowed for road and bridge improvements.

### Connectivity

Public safety is the utmost concern of Johnson County, and connectivity issues such as long dead end roads with no secondary outlet pose a challenge to public safety providers. While this is a problem across Johnson County's rural road system, the areas north of the metro have the most issues. Currently, there are no requirements for rural subdivision development regarding connectivity for roads, sidewalks, or trails. This is in part due to the geographical impediments present in these areas including the Coralville Reservoir, steep slopes, and the preservation of sensitive areas.



[section 4.3]

# GOALS, STRATEGIES & ACTION STEPS: INFRASTRUCTURE & AMENITIES

All goals, strategies, and action steps were developed based on the priorities discussed above and the information collected through the public input process, input from the Comprehensive Plan Committee (CPC), and feedback from the Board of Supervisors. To see a summary of input (including survey results) regarding Infrastructure and Amenities, please see Appendix B contained in Volume 2 of this plan.

**DEFINITION:** Below are definitions of each term and how they will be used in the Implementation Plan section of the comprehensive plan.

- **Goal:** A desired outcome based on the values of the public and elected officials.
- **Strategy:** The approach you take to achieve a goal.
- **Action Step:** The specific steps you take to achieve a strategy.

**FORMAT:** Each goal (e.g. INF 1) is presented with corresponding strategies (e.g. Strategy 1, Strategy 2) and action steps (e.g. Action 1, Action 2).

**INFRASTRUCTURE & AMENITIES 1 – This is an example of a Goal’s formatting.**

**Strategy 1 – This is an example of a Strategy’s formatting.**

Action 1 – This is an example of an Action Step’s formatting.

Action 2 – This is an example of an Action Step’s formatting.

Action 3 – This is an example of an Action Step’s formatting.

**INFRASTRUCTURE & AMENITIES 1 – Develop well-connected recreational parks, public open/natural spaces, and trails throughout the county.**

**Strategy 1 – Improve connectivity between subdivisions, open space, and destinations that generate traffic.**

Action 1 – Identify and map opportunities to create greater connectivity between existing developments.

Action 2 – Support local and regional trail plans.

Action 3 – Continue to serve on and work with existing area and regional trails committees.

Action 4 – Facilitate improvements recommended by water trail plans.

**INFRASTRUCTURE & AMENITIES 2 – Utilize existing infrastructure and adopt green infrastructure practices.**

**Strategy 1 – Coordinate development policies with road improvement and maintenance plans.**

Action 1 – Have planning staff participate in the annual review of the Johnson County Secondary Roads Five-Year Plan.





Action 2 – Review and update the existing Road Performance Standards to consider factors such as safety, volume, speed, traffic type, and other national standards.

Action 3 – Identify and consider projects to optimize the use of existing public infrastructure.

**Strategy 2 – Encourage the use of green infrastructure.**

Action 1 – Identify opportunities to use green infrastructure instead of traditional practices.

Action 2 – Explore potential incentives such as density bonuses.



**WHAT IS GREEN INFRASTRUCTURE?** Green infrastructure utilizes natural vegetation to capture, store, and infiltrate stormwater runoff such as bioswales (large water collector), rain gardens (small water collector), and green roofs pictured above. It provides a range of critical functions and ecosystem services to communities, such as wildlife habitat, stormwater management, and recreational opportunities.\*

**Strategy 3 – Coordinate with regional transportation investments and long-range transportation plans.**

Action 1 – Actively participate in local and regional planning activities.

**INFRASTRUCTURE & AMENITIES 3 – Make transportation, land use, and infrastructure decisions that encourage a reduction in auto-dependent travel.**

**Strategy 1 – Promote safe use of the county’s public road network by all users.**

Action 1 – Identify best management practices for rural road systems.

Action 2 – Consider complete street features as appropriate for higher density areas.

Action 3 – Provide appropriate multimodal signage on highways and other major roads with extended shoulders.

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**Strategy 2 – Support development that will reduce vehicle miles traveled.**

- Action 1 – Require connectivity plans for new subdivisions, showing intended connections to the existing and planned trail and road network.
- Action 2 – Update the subdivision regulations to require connectivity plans and limit the creation of cul-de-sac and dead-end roads unless impractical.
- Action 3 – Add requirements for sidewalks and trail connectivity to the subdivision regulations.

**INFRASTRUCTURE & AMENITIES 4 – Support environmental, cultural, and historic elements in the planning and design of future infrastructure.****Strategy 1 – Protect and raise awareness of environmental amenities and character of the county.**

- Action 1 – Develop an ordinance that balances scenic road features, safety requirements, and Secondary Road plans.
- Action 2 – Establish criteria to identify environmental, cultural, and historic elements.
- Action 3 – Work with the Iowa Department of Transportation to develop watershed educational standards including roadway signage.

**INFRASTRUCTURE & AMENITIES 5 – Support amenities that enhance livability and quality of life.****Strategy 1 – Support the Johnson County Conservation Strategic Plan.**

- Action 1 – Consider revisions to align zoning ordinance and other County policies.

**Strategy 2 – Promote livability initiatives across all Johnson County departments.**

- Action 1 – Encourage livability initiatives within all administrative activities across all Johnson County departments.

**Strategy 3 – Support appropriate special events and activities across Johnson County.**

- Action 1 – Establish new or promote existing central events calendar.
- Action 2 – Consider grant incentives and programs that support and develop events or activities that benefit the county.

**Strategy 4 – Consider improvements to communication infrastructure and access to technology in coordination with economic development goals.****Strategy 5 – Become a leader in food system infrastructure.**

- Action 1 – Develop and adopt a countywide food system plan.
- Action 2 – Explore options to utilize existing infrastructure and build new infrastructure that supports the local food system (e.g. food hub, distribution centers, etc.).

**Strategy 6 – Support the development of renewable energy in Johnson County, including both private and utility scale solar and wind.**



# IMPLEMENTATION: INFRASTRUCTURE & AMENITIES

## IMPLEMENTATION TABLE

The implementation table presents the strategies and action steps developed for each of the plan elements: Sustainability, Local Economy, Infrastructure and Amenities, and Land Use. There are three components in each table: Strategy/Action Step, Timeframe, and Collaborating Partners.

### Goals, Strategies & Action Steps

The goals, strategies, and action steps presented are the same as those presented earlier in this chapter under “Priorities and Goals.”

### Timeframe

An approximate timeframe to complete each action step was determined by staff evaluation. This evaluation considered existing or future funding capacity, expertise and technical capacity of existing staff, and the potential for acquiring additional expertise or technical capacity. The assigned timeframes are estimates; it may take less or more time for any given action step to be completed. Here are the four timeframes:

- Ongoing: Existing strategies that are on a regular cycle or will continue
- Short-term: < 2 years
- Mid-term: 2 to 5 years
- Long-term: > 5 years

### Collaborating Partners

Implementation of the plan strategies involves the actions and decisions of entities other than county government. The success of the comprehensive plan’s vision is dependent on the County’s ability to identify these partners, reach out, and maintain ongoing communication and coordination. The implementation tables identify suggested collaborating partners; additional organizations may be identified over time and partners that are not listed are not excluded from future collaboration. For policy and ordinance development, there will be ample opportunity for input through public hearings and meetings.

The following key works for all implementation tables; some abbreviations may not appear in every chapter:

- **BOS:** Johnson County Board of Supervisors
- **CSD:** Community School Districts
- **CVB:** Iowa City/Coralville Convention & Visitors Bureau
- **ECICOG:** East Central Iowa Council of Governments
- **EMA:** Johnson County Emergency Management Agency
- **FEMA:** Federal Emergency Management Agency
- **FSA:** Farm Service Agency
- **ICAD:** Iowa City Area Development Group
- **IDNR:** Iowa Department of Natural Resources
- **I-DOT:** Iowa Department of Transportation
- **IT:** Johnson County Information Technology
- **MPOJC:** Metropolitan Planning Organization of Johnson County
- **NRCS:** Natural Resources Conservation Service
- **PDS:** Johnson County Planning, Development & Sustainability
- **SEATS:** Johnson County SEATS Paratransit
- **SWCD:** Johnson County Soil & Water Conservation District
- **WMA:** Watershed Management Authorities



<b>INF 1 – Develop well-connected recreational parks, public open/natural spaces, and trails throughout the county.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Improve connectivity between subdivisions, open space, and destinations that generate traffic.</b>		
Action 1 – Identify and map opportunities to create greater connectivity between existing developments.	Mid-term	PDS, MPOJC, Secondary Roads
Action 2 – Support local and regional trail plans.	Ongoing	PDS, MPOJC, ECICOG, Secondary Roads, Conservation
Action 3 – Continue to serve on and work with existing area and regional trails committees.	Ongoing	PDS, MPOJC, ECICOG, Secondary Roads, Conservation
Action 4 – Facilitate improvements recommended by water trail plans.	Ongoing	BOS, PDS, Conservation, IDNR, local paddling groups, Iowa Water Trails Assoc.
<b>INF 2 – Utilize existing infrastructure and adopt green infrastructure practices.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Coordinate development policies with road improvement and maintenance plans.</b>		
Action 1 – Have planning staff participate in the annual review of the Johnson County Secondary Roads Five-Year Plan.	Short-term	PDS
Action 2 – Review and update the existing Road Performance Standards to consider factors such as safety, volume, speed, traffic type, and other national standards.	Ongoing	PDS, Secondary Roads
Action 3 – Identify and consider projects to optimize the use of existing public infrastructure.	Short-term	PDS, Secondary Roads
<b>Strategy 2 – Encourage the use of green infrastructure.</b>		
Action 1 – Identify opportunities to use green infrastructure instead of traditional practices.	Long-term	PDS, Secondary Roads
Action 2 – Explore potential incentives such as density bonuses.	Short-term	PDS
<b>Strategy 3 – Coordinate with regional transportation investments and long-range transportation plans.</b>		
Action 1 – Actively participate in local and regional planning activities.	Ongoing	PDS, cities, MPOJC, ECICOG



<b>INF 3 – Make transportation, land use, and infrastructure decisions that encourage a reduction in auto-dependent travel.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Promote safe use of the county’s public road network by all users.</b>		
Action 1 – Identify best management practices for rural road systems.	Mid-term	Secondary Roads
Action 2 – Consider complete street features as appropriate for higher density areas.	Short-term	Secondary Roads
Action 3 – Provide appropriate multimodal signage on highways and other major roads with extended shoulders.	Mid-term	Secondary Roads
<b>Strategy 2 – Support development that will reduce vehicle miles traveled.</b>		
Action 1 – Require connectivity plans for new subdivisions, showing intended connections to the existing and planned trail and road network.	Short-term	PDS, Secondary Roads
Action 2 – Update the subdivision regulations to require connectivity plans and limit the creation of cul-de-sac and dead-end roads unless impractical.	Short-term	PDS
Action 3 – Add requirements for sidewalks and trail connectivity to the subdivision regulations.	Short-term	PDS
<b>INF 4 – Support environmental, cultural, and historic elements in the planning and design of future infrastructure.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Protect and raise awareness of environmental amenities and character of the county.</b>		
Action 1 – Develop an ordinance that balances scenic road features, safety requirements, and Secondary Road plans.	Long-term	BOS, PDS, Secondary Roads
Action 2 – Establish criteria to identify environmental, cultural, and historic elements.	Long-term	PDS, Conservation, NRCS, State Archaeologist
Action 3 – Work with the Iowa Department of Transportation to develop watershed educational standards including roadway signage.	Long-term	PDS, Secondary Roads, I-DOT



<b>INF 5 –Support amenities that enhance livability and quality of life.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Support the Johnson County Conservation Strategic Plan.</b>		
Action 1 – Consider revisions to align zoning ordinance and other County policies.	Short-term	BOS, PDS, Conservation
<b>Strategy 2 – Promote livability initiatives across all Johnson County departments.</b>		
Action 1 – Encourage livability initiatives within all administrative activities across all Johnson County departments.	Ongoing	BOS
<b>Strategy 3 – Support appropriate special events and activities across Johnson County.</b>		
Action 1 – Establish new or promote existing central events calendar.	Ongoing	BOS, IT
Action 2 – Consider grant incentives and programs that support and develop events or activities that benefit the county.	Long-term	BOS
<b>Strategy 4 – Consider improvements to communication infrastructure and access to technology in coordination with economic development goals.</b>		
<b>Strategy 5 – Become a leader in food system infrastructure.</b>		
Action 1 – Develop and adopt a countywide food system plan.	Short-term	BOS, PDS, Food Policy Council
Action 2 – Explore options to utilize existing infrastructure and build new infrastructure that supports the local food system (e.g. food hub, distribution centers, etc.).	Ongoing	BOS, PDS, Food Policy Council, ICAD
<b>Strategy 6 – Support the development of renewable energy in Johnson County, including both private and utility scale solar and wind.</b>		



**Chapter 5**

# Land Use

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# Land Use

# 5

## JOHNSON COUNTY

While Johnson County has continued to experience tremendous population and developmental growth, many of the challenges addressed in the 2008 Land Use Plan are still relevant today. Balancing continued growth with the protection of the environment and preservation of agricultural lands has continued to be a very important issue to both the public and elected officials.

The regulatory barriers adopted to enact the vision of the 1998 and 2008 Land Use Plans have helped preserve agricultural land. The farmstead split rule, enacted December 1, 2000, limits the ability to subdivide an agricultural tract of land. The rule allows a farmer’s family member to build a home on a lot adjacent lot to the existing farm so that they may continue the agricultural business.

The 2008 Land Use Plan sought to encourage higher-density residential housing and limit non-agricultural growth to the North Corridor Development Area (NCDA). While development mostly located in this area, subdivision designs continued to favor lower-density development. In this 2018 plan, the NCDA has been replaced by a Future Land Use Map that has detailed land use designations and focused development areas throughout the county.

This chapter reviews past land use and housing trends and establishes the future land use plan, including a Future Land Use Map (Map 3, page 111). This analysis is essential to the preparation of the future land use development guidelines, as well as transportation plans that will help guide future updates to Johnson County’s development regulations.





[section 5.1]

# PROFILE

## EXISTING LAND USE INVENTORY

Understanding the pattern of existing land use highlights potential challenges and opportunities for future development, as well as land preservation. Map 2 on page 100, titled “Existing Land Use” uses the Johnson County Assessor’s property class or land use designations (Table 5) from tax records to identify each parcel’s primary use as of 2016: agricultural, residential, commercial, industrial, and tax-exempt. Tax-exempt parcels are those owned by city, county, utility provider, or charitable organizations. Because of historic zonings and legal nonconforming uses, the tax classification of a parcel rather than the zoning classification serves as a more accurate indicator of the actual land use.

### Agricultural Land Uses

Per the County Assessor’s classification, agriculture is the primary land use accounting for 72.7% of all land in Johnson County and 81.5% of unincorporated areas. Much of the unincorporated areas of Johnson County are, indeed, utilized for agricultural purposes with the exception of major park and wildlife areas (e.g. Hawkeye Wildlife Management Area, Coralville Reservoir, Lake Macbride, Kent Park).

### Residential Land Uses

Only 7.2% of the unincorporated areas are utilized for residential purposes with an average lot size of 3.5 acres (Table 5). The highest density of residential housing is located within the then current North Corridor Development Area (NCDA). A total of 4,083 residential lots are located within the NCDA which accounts for over 55% of all residential lots throughout unincorporated Johnson County. The residential lots in the NCDA have an average lot size of 2.4 acres.

Figure 9 highlights residential trends for the amount of acres subdivided, the number of lots platted and the average size per lot between 2006 and 2016. The number of lots platted in 2016 was the lowest since 2011 and the third lowest since 2006. Similarly, the 170 total acres included in buildable lots is the fewest since 2011 and the second fewest over the study period. The average acres per lot have leveled off at just under 3.9 acres per lot from 2014 to 2016, which is the lowest average since 2001 (an outlier, at an average 2.8 acres per lot). The average acres per lot from 2006–2016 were 4.96 acres.

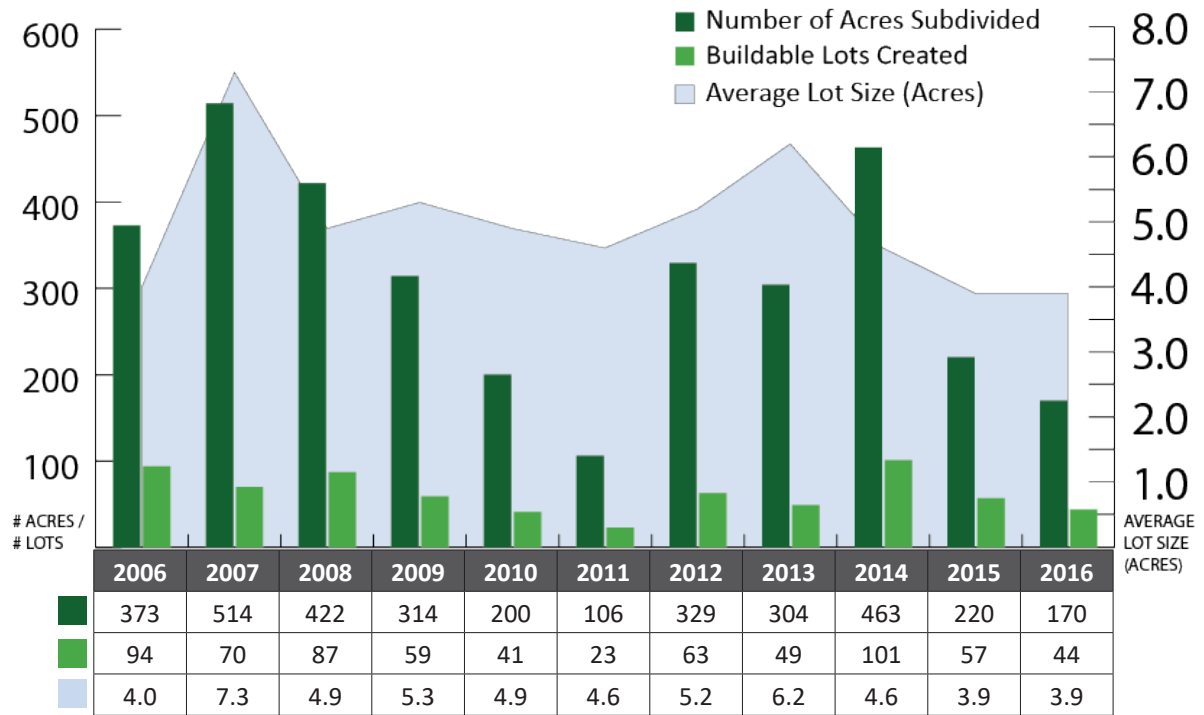
Multi-family parcels make up less than 1% of the unincorporated areas in Johnson County (Table 5). The majority of these properties consist of multiple lots available for lease to manufactured housing units.

### Tax-Exempt Land Uses

According to the County Assessor, parcels classified as tax-exempt are owned by city, county, utility provider, charitable organizations, or some other entity claiming partial or full exemption from property taxes. Areas classified as tax-exempt make up the largest nonresidential use, accounting for approximately 23,898 acres or 6.7% of the unincorporated areas of Johnson County (Table 5). The United States Army Corps of Engineers accounts for the largest amount of exempt land held: 18,783 acres (78.6%). Johnson County, holding 2,274 acres (9.5%), is the second-largest land owner of tax-exempt parcels. These exempt parcels held by the county are for uses such as Secondary Roads sheds, or public ground owned by the county Conservation Board.



**Figure 9. Annual Subdivided Lots and Average Lot Size (2006-2016)**



Source: Johnson County Planning, Development and Sustainability Department

### Commercial & Industrial Land Uses

Commercial parcels make up the second-largest nonresidential land use with 674 parcels, but only account for 7,479 acres or 2.1% of the unincorporated areas (Table 5). These commercial parcels are primarily concentrated in the Iowa City and Coralville areas along the I-80 and I-380/218 corridors.

Only 14 parcels totaling 94.7 acres of land are classified as an industrial land use within the unincorporated areas of Johnson County. Nearly 40 acres of industrial land are located at the Farmers Hen House site south of the Village of Frytown with an additional 21 acres located at the Kalona Creamery site at the intersection of Highway 1 SW and 540th Street SW. The Syngenta Seed production facility located east/northeast of Lone Tree on Highway 22 SE accounts for an additional 30 acres.

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**Table 5. Existing Land Use Analysis: Johnson County Assessor's Primary Class, 2016 (Unincorporated)**

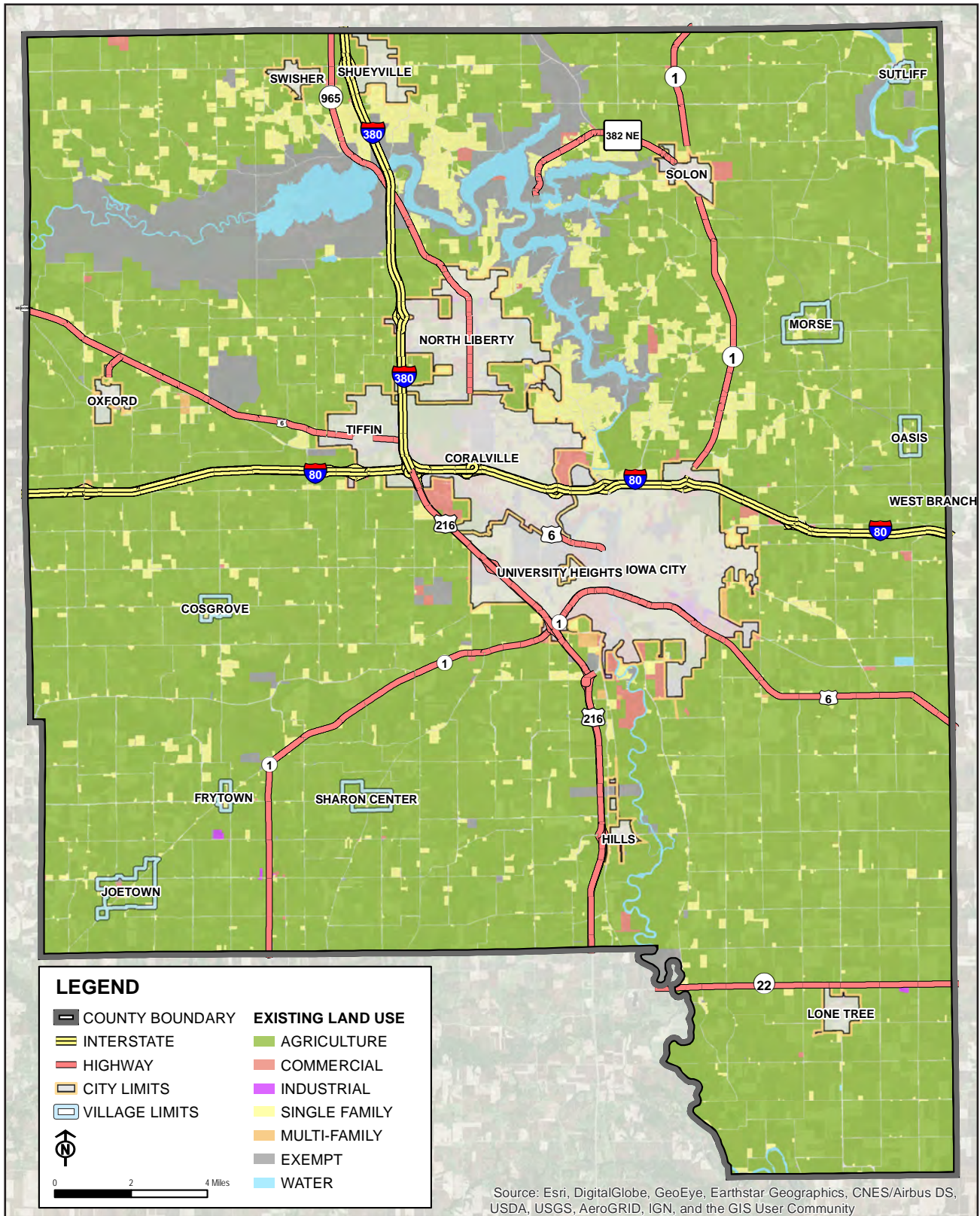
	Number of Parcels	Number of Acres	% of Total Area	% of Unincorp. Area	Average Parcel Size
<b>PROPERTY CLASS</b>					
Agricultural	10,247	289,720	72.7%	81.5%	28.3
Residential	7,407	25,745	6.5%	7.2%	3.5
Exempt*	517	23,898	6.0%	6.7%	46.2
Commercial	674	7,479	1.9%	2.1%	11.1
Multi-Family	13	358	0.1%	0.1%	27.5
Industrial	14	95	0.02%	0.03%	6.8
Water	37	8,317	2.1%	2.3%	NA
<b>TOTAL</b>	<b>18,910</b>	<b>355,612</b>	<b>89.2%**</b>	<b>100.0%</b>	<b>NA</b>
<b>EXEMPTION SUBTYPE OVERLAY</b>					
Forest Reserve- Agricultural	557	7,412	1.9%	2.1%	13.3
Forest Reserve- Residential	625	4,079	1.0%	1.1%	6.5
Native Preserve	4	16	***	***	3.9
Woodland Habitat	8	13	***	***	1.6
Wetland Preserve	4	19	***	***	4.8
<b>TOTAL</b>	<b>1,198</b>	<b>11,538</b>	<b>2.9%</b>	<b>3.2%</b>	<b>NA</b>
<p>* Described as parcels owned by a city, county, utility provider, charitable organizations or some other entity claiming partial or full exemption from property taxes.            ** The remaining 10.8% of land area is within the incorporated areas of Johnson County.            *** Account for less than 0.1% of land area.</p>					

Data Source: Johnson County Assessor's Department

**NOTE: Property class definitions can be found in Figure 13 of Appendix A (page 38).**



Map 2. Existing Land Use: Assessor's Property Class (2016)



Data Source: Johnson County GIS Department

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## NATURAL & ENVIRONMENTAL CONDITIONS

This section reviews environmental and natural resource issues to identify opportunities and natural barriers to future development in Johnson County. The results help identify appropriate growth areas on the Future Land Use Map while avoiding slopes, floodplains, woodlands, and wetlands. Areas that limit development or are deemed to have high environmental value should be preserved or developed in a way to minimize damage to the existing environment.

Countywide maps for various natural and environmental conditions can be found in Appendix A.

### Slope

The slope of the terrain affects the land uses applicable to a specific site (Map 3 in Appendix A). Grading of steep hillsides changes the character of the landscape and adds cost to a development project. Moreover, developing steep hillsides can increase erosion with the potential to pollute waterways and damage neighboring properties.

### Soil Infiltration Rates

Soil infiltration rates measure the ability of water to move or infiltrate through the profile of the soil. Soils with slow infiltration rates can cause ponding, which decreases soil strength and causes soil to become highly erodible. High infiltration rates are generally desirable and provide natural on-site stormwater management and also present minimal barriers to installation of traditional wastewater systems.

### Woodlands

Johnson County is home to many parks and woodland areas that are highly valued by residents and visitors. Protecting these forests is ecologically critical—providing wildlife habitat, scenic beauty, erosion control, and other intrinsic values.

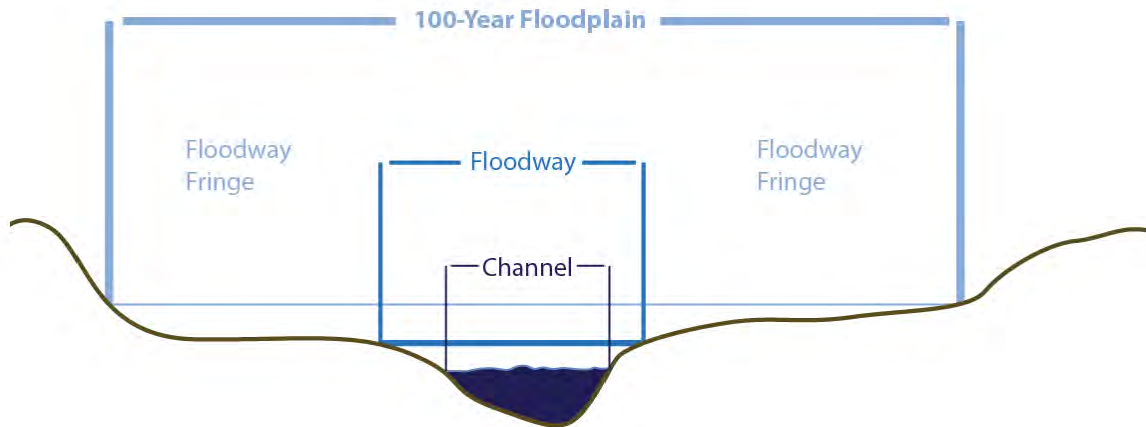


## Floodway & Floodplains

Flood Hazard Areas represent another set of environmental issues that need to be considered and dealt with properly when determining future growth areas. As shown in the floodplain diagram (Figure 10), floodplains include the channel, the floodway, and the floodway fringe. The *floodway* includes the main channel of a stream or river and the additional area along the banks needed to convey the additional water flows during times of flooding. The *floodway fringe* is the area adjacent to the floodway, where floodwaters can be expected to pool and stand until flood levels recede. Thus, the floodway fringe are lands outside the floodway that are at or below the base flood elevation that store, but do not effectively convey, floodwaters. The floodway fringe and the floodway, taken together, make up the floodplain. The size of the floodplain changes based on the severity of the flood.

Federal, state, and local regulations require that additional permitting and design requirements be applied to any development in areas designated as a Special Flood Hazard Area. This is an area with a 1% chance of being inundated by a flood in any given year. The Special Flood Hazard Area should be used as a guide when determining development potential because this is the area in which FEMA requires additional regulation and design considerations for any new or substantially improved structures.

**Figure 10.** Flood Hazard Area Diagram



Source: JEO Consulting Group Inc.

The Johnson County Unified Development Ordinance contains floodplain development regulations to either limit or prevent development within the floodway and Special Flood Hazard Area. Development may be allowed in the Special Flood Hazard Area if the structure is elevated one foot above the designated flood level. Development within the floodway, however, is highly discouraged to eliminate any negative impact up-and-downstream. These property owners may also be required to purchase flood insurance by their mortgage lender. Preferred land uses for flood-prone areas include those with low damage potential such as agriculture, recreation, and open space.



## HOUSING TRENDS

As has been noted, Johnson County is the second fastest-growing county in Iowa. In turn, the housing market is under pressure to accommodate new residents without inflating prices. As highlighted in Chapter 1 (Introduction), most of the population growth has occurred in the incorporated areas of the county, resulting in most new housing being built within and around these areas. Developing in the cities has been the county's preferred development pattern with the rural residential development directed toward the North Corridor Development Area as identified in the 2008 Land Use Plan.

To see detailed data about the Johnson County housing market, see Appendix A. Census data help identify future housing needs through an analysis of past and present trends in household characteristics, housing types, and housing values throughout urban and rural parts of the county. Some highlights from the census data include:

- 91% of housing in the unincorporated area is owner occupied.
- Half of the incorporated housing stock has been built since 1980, with one in four residential structures built in the 1990s.
- 36.3% of housing in the unincorporated areas is valued at over \$300,000, compared to 16.5% for the incorporated areas.
- 49% of renters in the unincorporated area pay less than 20% of their income toward housing, while 30.6% of rural renters are housing-cost burdened, paying greater than 30% of household income on rent.
- 579 building permits were issued for single-family dwellings in unincorporated Johnson County between 2008 and 2017.



*Example of single-family housing found in the unincorporated areas of Johnson County.*



[section 5.2]

## **PRIORITIES: LAND USE**

This section (1) identifies priorities needed to guide future growth and development, (2) lists goals, strategies, and action steps, and (3) provides Land Use Tools including a Future Land Use Map with related tools and Future Land Use Development Guidelines. A major underlying concern is to ensure that land uses do not create conflict.

### **PRIORITIES**

#### **Preserve Natural Resources**

A persistent theme during the comprehensive plan process was the need to protect Johnson County’s environmentally sensitive areas from residential growth. Key strategies to accomplish this goal include continuing to encourage growth in incorporated cities and villages, where infill potential is highest; strengthening the sensitive areas ordinance; and developing sustainable subdivision design regulations to ensure efficient development practices. In addition, the Future Land Use Map identifies areas for preservation and conservation-style development.

#### **Conservation Subdivision Development**

In support of preserving natural areas, conservation subdivision developments (CSDs) are another way to reduce negative impact of residential development in rural areas and preserve more open space and farmland. While there have been parcels rezoned to accommodate a CSD, no platting or development had been completed at the time this plan was published. The requirement to preserve 50% or more of the development as open space and install a DNR–regulated septic system has proven to be a high threshold for developers to reach. Revising wastewater requirements and/or bolstering incentives such as density bonuses may encourage developers to pursue this style of subdivision.

#### **Rural Residential Development**

The Future Land Use Map provides for rural residential development to accommodate population growth, while preserving environmentally sensitive and agriculturally productive areas of the county. A large portion of the most environmentally sensitive areas are already protected as part of Lake Macbride State Park and other parks and wildlife management areas; however, privately owned environmentally sensitive areas are still subject to development pressures.

Locating residential development near cities and encouraging interconnectedness of roads and trails should help reduce vehicles miles traveled and limit emissions while accommodating population growth. Residential growth should be located in areas designated for residential development on the future land use map.

#### **Fringe Area Agreements (FAA)**

The current Fringe Area Agreements have helped Johnson County coordinate development within the two-mile jurisdictional areas of incorporated cities. Changes to the county’s Future Land Use Map and continuing development within the cities present the opportunity to review these agreements.





[section 5.3]

# GOALS, STRATEGIES, ACTION STEPS & LAND USE TOOLS

All goals, strategies, and action steps were developed based on the priorities discussed above and the information collected through the public input process, input from the Comprehensive Plan Committee (CPC), and feedback from the Board of Supervisors. To see a summary of input (including survey results) regarding Land Use, please see Appendix B contained in Volume 2 of this plan.

This section also includes the Future Land Use Tools, which includes a Future Land Use Map (FLUM) and Development Guidelines. Both are meant to guide future development in the county.

**DEFINITION:** Below are definitions of each term and how they will be used in the Implementation Plan section of the comprehensive plan.

- **Goal:** A desired outcome based on the values of the public and elected officials.
- **Strategy:** The approach you take to achieve a goal.
- **Action Step:** The specific steps you take to achieve a strategy.

**FORMAT:** Each goal (e.g. LND 1) is presented with corresponding strategies (e.g. Strategy 1, Strategy 2) and action steps (e.g. Action 1, Action 2).

**LAND USE 1 – This is an example of a Goal’s formatting.**

**Strategy 1 – This is an example of a Strategy’s formatting.**

- Action 1 – This is an example of an Action Step’s formatting.
- Action 2 – This is an example of an Action Step’s formatting.
- Action 3 – This is an example of an Action Step’s formatting.

**LAND USE 1 – Promote and protect sustainable agricultural land uses in rural Johnson County.**

**SUSTAINABLE AGRICULTURE** includes practices that satisfy the food and income requirements of farmers, provide people with a healthy and affordable diet, protect environmental quality and human health, and contribute to the vitality of rural and urban communities.

**Strategy 1 – Advocate for agricultural preservation in all Fringe Area Agreements.**

- Action 1 – Pursue adoption of Fringe Area Agreements with cities where no agreement currently exists.
- Action 2 – Within the fringe areas, advocate that areas not identified for city growth shall adhere to the county Future Land Use Map.
- Action 3 – Update all existing Fringe Area Agreements within two years of adoption of the comprehensive plan and review Fringe Area Agreements every three years thereafter.

**Strategy 2 – Update Johnson County’s agricultural exemption policy.**

- Action 1 – Explore methods to expand agricultural exemption to smaller farming operations.
- Action 2 – Ensure that updated agricultural exemption policies do not become a method for siting CAFOs on small parcels.
- Action 3 – Ensure that updated agricultural exemption policies do not become a method for unplanned residential growth.
- Action 4 – Explore methods for limited residential development for small-scale agriculture.

**Strategy 3 – Develop recommendations to alleviate conflicts between agricultural property owners and non-agricultural neighboring properties.**

- Action 1 – Revise and distribute information on what to expect when moving to rural Johnson County.
- Action 2 – Explore creating “good neighbor” guidance that identifies strategies to avoid conflicts between different land uses.

*What are **GOOD NEIGHBOR POLICIES**? The decision to move from the city and live in rural areas may mean encountering unfamiliar sights, sounds, and smells. Good neighbor policies help to set expectations for residential households and adjacent agricultural uses, and how best to approach a conflict should it arise.*

**Strategy 4 – Encourage and promote the use of on-field and edge-of-field best management practices for top soil and water quality protection.**

- Action 1 – Staff will stay informed about resources to aid farmers seeking to implement best management practices.

**Strategy 5 – Discourage concentrated animal feeding operations (CAFOs) in Johnson County.**

- Action 1 – Continue to lobby the Iowa State Legislature to allow counties the ability to regulate CAFOs.
- Action 2 – Encourage and promote best management practices for CAFOs.
- Action 3 – Monitor and report the adverse environmental effects of concentrated animal feeding operations (CAFOs) in Johnson County to appropriate agencies.

**LAND USE 2 – Direct future residential development based on location and then site-specific criteria outlined in the Future Land Use Development Guidelines.****Strategy 1 – Support rezoning applications that comply with the Future Land Use Map and the Future Land Use Development guidelines.**

- Action 1 – Focus residential development in areas that comply with the Future Land Use Map.
- Action 2 – Review and potentially update the Future Land Use Map every five years after adoption.
- Action 3 – Develop a procedure for individual property owners to request a change to the Future Land Use Map.



Action 4 – Develop a procedure for combined rezoning, subdivision, and/or development applications.

Action 5 – Allow for flexibility in the zoning ordinance by adoption of planned unit development (PUD) zoning districts and overlay zones.

**Strategy 2 – Support rezoning applications on parcels that meet the standards identified by the Future Land Use Development Guidelines.**

Action 1 – Review and update Stormwater Standards at least every five years.

Action 2 – Review and update Sensitive Areas Ordinance (SAO) at least every five years.

Action 3 – Review and update the Road Performance Standards to consider factors such as safety, traffic volume, speed, traffic type, and other national standards.

Action 4 – Identify environmentally sensitive area criteria to protect natural areas and prevent conflicting land uses.

**Strategy 3 – Continue use of existing Farmstead Split rule.**

Action 1 – Explore limiting the size and number of agricultural outlots.

Action 2 – Review and revise language as subdivision rules are updated.

**LAND USE 3 – Direct future commercial and industrial development based on location and then site-specific criteria.**

**Strategy 1 – Encourage commercial and industrial development within the cities and the Urban Growth Areas.**

Action 1 – Discuss and coordinate development activities as part of Fringe Area Agreement negotiations.

Action 2 – Encourage new commercial and industrial development to sites that can be served by municipal water and sanitary sewer.

**Strategy 2 – Support appropriate commercial and industrial development that complies with the Future Land Use Map.**

Action 1 – Review and update commercial and industrial land use areas every five years.

Action 2 – Identify vacant or underutilized parcels zoned commercial and/or industrial within the unincorporated areas of Johnson County.

**Strategy 3 – Develop overlay and other commercial and industrial zones to allow more flexibility in rural commercial development.**

Action 1 – Develop criteria for where commercial and industrial overlay zones are appropriate.

Action 2 – Develop criteria for where neighborhood commercial uses are appropriate.

Action 3 – Develop criteria for where agritourism uses are appropriate.



**LAND USE 4 – Coordinate land use planning with and between local governments to achieve mutually beneficial development policies.**

**Strategy 1 – Work with individual cities to update Fringe Area Agreements.**

- Action 1 – Pursue adoption of Fringe Area Agreements for cities where no agreement currently exists.
- Action 2 – Advocate for the urban growth area of each Fringe Area Agreement to identify areas that may be developed within the next five or fewer years.
- Action 3 - Ensure that areas outside of the urban growth area comply with the county Comprehensive Plan.
- Action 4 – Pursue Fringe Area Agreements that will allow the Board of Supervisors to comment on city development applications that may impact the unincorporated areas (e.g. roads, safety, stormwater management, etc.).
- Action 5 – Review and update all existing Fringe Area Agreements in accordance with the fringe area agreement schedule contained in Appendix A of this plan.

**Strategy 2 – Work with cities and school districts to pursue collaborative growth strategies for mutual benefit.**

- Action 1 – Serve as a resource for the community, city staff, and other organizations regarding regional planning issues.
- Action 2 – Pursue regional, multijurisdictional intergovernmental agreements.

**Strategy 3 – Advocate for stormwater management and sensitive areas preservation when annexation occurs.**

**Strategy 4 – Discourage the creation of “unincorporated islands.”**

What are **UNINCORPORATED ISLANDS**? An island is a pocket of unincorporated land that is substantially surrounded by a city. This is the result of annexation by a city when they want to incorporate a parcel of land but not the entire area contiguous to their current city boundary. In order to meet state code, the island parcel must be connected to the county by a 40-foot strip of land.

**LAND USE 5 – Continue to protect and improve Johnson County’s natural resources: land, water, and air.**

**Strategy 1 – Begin to identify and evaluate all critical and sensitive environmental features in Johnson County.**

- Action 1 – Establish criteria to evaluate these areas.
- Action 2 – Coordinate with cities to map sensitive features countywide.



**Strategy 2 – Encourage agricultural uses to utilize best management practices and observe conservation practices that prevent erosion and preserve natural resources.**

- Action 1 – Ensure staff stay informed of the best management practices and available conservation programs to assist with funding and public education.
- Action 2 – Promote the use of the Conservation Reserve Program (CRP), the Agricultural Conservation Easement Program (ACEP), or similar programs.

**Strategy 3 – Ensure consideration of natural resource and agricultural protection while supporting the development of renewable energy in Johnson County, including both private and utility scale solar and wind.**

The **CONSERVATION RESERVE PROGRAM (CRP)** is a land conservation program administered by the Farm Service Agency (FSA). In exchange for a yearly rental payment, farmers enrolled in the program agree to remove environmentally sensitive land from agricultural production and plant species that will improve environmental health and quality. Contracts for land enrolled in CRP are 10–15 years in length. The long-term goal of the program is to reestablish valuable land cover to help improve water quality, prevent soil erosion, and reduce loss of wildlife habitat.

The **AGRICULTURAL CONSERVATION EASEMENT PROGRAM (ACEP)** provides financial and technical assistance to help conserve working agricultural lands and complete wetland restoration and protection projects.



## FUTURE LAND USE TOOLS

The Future Land Use component of the Comprehensive Plan focuses on the physical development of the unincorporated areas of Johnson County. In addition to the goals, strategies and actions outlined above, the component includes important future land use tools: Future Land Use Map (with category and zoning compatibility tools) and Future Land Use Development Guidelines.

Comprehensive plans generally project 20 years into the future. The Future Land Use Tools assist Johnson County decision makers in determining the appropriate type and location of future development. The tools were developed based on these criteria:

- The current use of land within the county;
- The desired types of growth, including location of growth and areas to preserve;
- Physical characteristics, as well as strengths and constraints of future growth; and
- Current population and economic trends affecting the county.

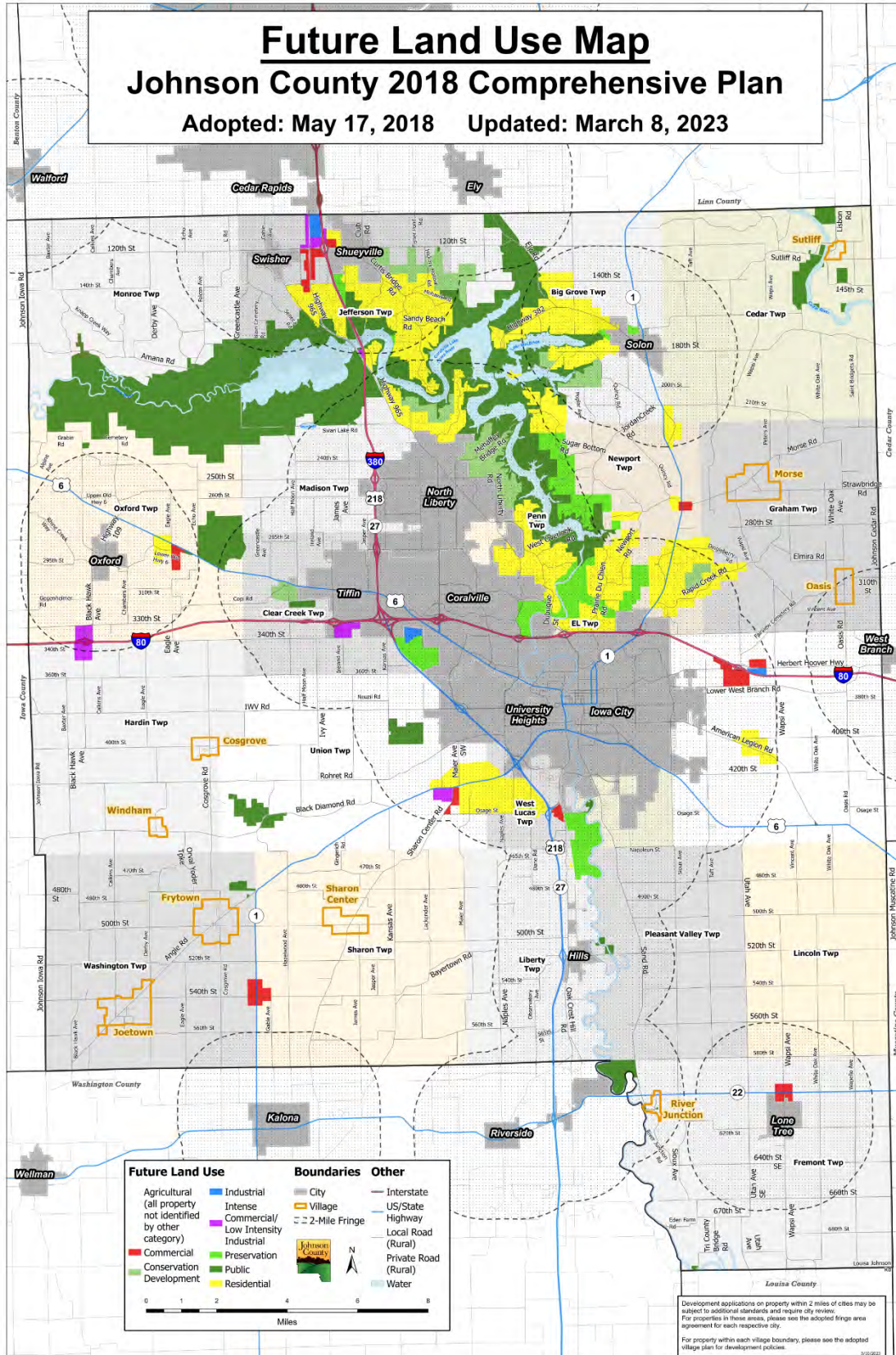
The Future Land Use tools can promote both compatible and complementary development. As growth occurs in Johnson County, these tools should be evaluated and updated to align with the values of the county.

The tools are presented in the following order:

- **Future Land Use Map (Map 3)**, which identifies appropriate land uses throughout the county
- **Future Land Use Categories**, which define the land use categories shown on the map
- **Zoning Compatibility Matrix**, used to identify appropriate zoning classifications for each of the above categories
- **Future Land Use Development Guidelines**, which outline site-specific criteria to consider for the different zoning districts



**Map 3. Johnson County Future Land Use Map (2017). (Amended: 9/12/19, 10/24/19, 10/08/20 Updated 3/2022 to show all village boundaries.)**



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## Future Land Use Categories *(Amended 11/14/19)*

Future Land Use Categories provide a means for describing preferred uses of land within the county and serve as a basis for zoning decisions. The following are definitions for each future land use category on the map:

### ***Agricultural***

Typical uses include land devoted to agriculture, including crop production and animal husbandry, and very limited residential development to include farmstead splits and small farm development. Less typical uses may also include commercial uses related to and/or supporting agricultural uses, rural recreation and park areas, utility scale renewable energy generation including wind and solar, mining and mineral extraction, and other land-intensive uses which may not be appropriate in other future land use categories. This land use category also includes areas of land significantly impacted by wetlands or floodplain and areas of steep topography or natural tree cover or other sensitive areas preserved as open space.

Limited residential development may be allowed on a case-by-case basis (rezoning a maximum of 1.99 acres to allow no more than one dwelling) if all elements in the Future Land Use Development Guidelines are achieved. Residential development should be associated with food production or be consistent with the historic use of the property and area. The intent of allowing limited residential development is to allow the Board of Supervisors to correct legal non-conforming uses and zoning packages and/or to allow an existing dwelling to be separated from a larger farm where the established use of the property is residential. It may also serve as a mechanism to allow for small farm development that does not otherwise qualify for agricultural exemption. Rezoning that result in the creation of residential development that does not reflect the agricultural nature of this category should not be approved.

### ***Residential***

This land use category is dominated by single-family detached dwellings with a preferred density of 1 unit per acre or denser. This category may also include single-family dwelling units that are attached horizontally to one or more units, typically referred to as duplexes, townhomes, and row-houses, and multifamily dwelling units attached both horizontally and vertically with two or more dwelling units, typically referred to as apartments or condominiums. The lowest-density residential zoning designations should only be used to correct legal non-conforming uses or zoning packages and are not appropriate for new developments.

Areas zoned for residential shall be limited to locations that can support and accommodate the designated residential densities. Lots should include public or private street frontage and driveway access. Development may further include residential clustered developments; religious, educational, and institutional uses and structures; child day care centers; and public and private parks and recreational areas and structures.

### ***Preservation***

This land use category is intended for property that has valuable environmental amenities, including floodplain, wetlands, woodlands, or other sensitive features. Properties in this category may also pose opportunities for very limited and carefully planned residential development. Very limited residential development (maximum one dwelling and 2 acres) that maximizes preservation of sensitive features through long-term protection may be appropriate on a case-by-case basis.

### ***Conservation Development***

This land use category is intended for property that has valuable environmental amenities, including floodplain, wetlands, woodlands, or other sensitive features. Any development that occurs in this land use category should protect sensitive features and encourages cluster-type subdivision by placing at least 50% of the property into zoning districts that preserve environmental features or open space.





### ***Commercial***

This land use category is for retail, service, office, and other traffic-generating commercial uses. The category is restricted to areas that have the infrastructure to support the traffic and utility demands of these uses. Site and building design should include features to minimize negative impacts from noise, light, and traffic.

### ***Intense Commercial/Low-Intensity Industrial***

This land use category is for uses equal to or more intense than those allowed in the commercial land use category, but limited to low-intensity industrial uses. These can include high-intensity commercial uses including oversized equipment; high traffic-generating uses including event centers and vehicle and equipment sales; and those with a limited manufacturing component, such as distilleries, and breweries. These uses should be limited to locations that have the public infrastructure necessary to support the traffic and utility demands of these uses.

### ***Industrial***

This land use category allows for manufacturing and other potentially noxious land uses. Site sizes can range from small single-user building lots to large facilities or developments with several stand-alone users. Areas reserved for this type of land use are typically not compatible with other areas of lower-intensity use. Given the limited areas suitable for this type of development, downzoning to less intense districts is generally discouraged.

### ***Public***

This category includes land owned and used by local, state, and federal governments, including educational, environmental, operational, and recreational uses.

### ***Village***

This category includes the county's unincorporated villages, which have developed in harmony with agricultural land uses and often provide services to the agricultural community. Typically, development in unincorporated villages is served by private water and sewage disposal systems and has a greater density than is found throughout rural and agricultural areas. Development in these areas should be in accordance with any adopted village plans.

### ***City Fringe***

Fringe Areas are city and county joint planning areas designed to protect the interests of the municipalities, their growth areas, and areas of the county immediately outside city growth areas. State statute grants cities the authority to review subdivisions within an area up to two miles beyond their corporate boundaries to facilitate orderly and compatible development in the adjacent areas. Fringe Areas are typically administered through a 28E Agreement between the city and county. Development in these areas will be in accordance with the adopted Fringe Area Agreement. Where no Fringe Area Agreement is in effect, development should be in accordance with the underlying Future Land Use Categories.

***NORTH CORRIDOR DEVELOPMENT AREA:*** *The North Corridor Development Area (NCDA) is not included as a future land use category and is not shown on the Future Land Use Map. This previous land use development area has been replaced by the more specific Future Land Use Categories (pages 112-113 and first column in Figure 11) and Future Land Use Map (Map 3) created for this plan.*

*This plan also references to the **NORTH CORRIDOR**, which is a general term, referring to the portion of the county north of Iowa City between Solon and Shueyville.*



# Zoning Compatibility Matrix

Figure 11. Future Land Use Compatible Zoning Matrix

Future Land Use Categories	Compatible Zoning																	
	A - Agricultural	AR - Agricultural Residential***	SF - Small Farmstead	R - Residential	RC - Rural Conservation	RMF - Residential Multi-Family	RMH - Manufactured Housing Residential	RR - Rural Recreation	C - Commercial	CH - Highway Commercial	AG-T - Agritourism	C-AG - Agri-Business	SWDRR - Solid Waste Disposal and Resource Reclamation	RE - Renewable Energy	ERP - Environmental Resource Preservation	ML - Light Industrial	MH - Heavy Industrial	P - Public
Agricultural	●		○															
Residential	●		○	○					○					○	●			●
Commercial	○								●	●	○				●			●
Intense Commercial/Low-Intensity Industrial	○								●	●		○			○	○		●
Industrial	○											●			○	●		●
Conservation Development	●		○	○	●										○			●
Preservation	○			○										○	●			●
Public	○													○	●			●
Village*	●		●	●					○	○				○	○			○
City Fringe**	●								○	○				○	○			○

\* All development within villages should comply with adopted village plan.  
 \*\* All development within two miles of any city may be subject to city review and should comply with any adopted fringe area agreement.  
 \*\*\* As a closed district, rezoning to change property to AR - Agricultural Residential is no longer allowed.

● = Compatible  
 ○ = Potentially Compatible  
 [blank] = Not Compatible

Amended 11/14/19, 5/5/22



The matrix on the preceding page identifies which zoning districts are appropriate in each Future Land Use Category. In the compatible zoning matrix at left, a “●” indicates the identified zoning district is **compatible** with the corresponding land use category, and an “○” indicates the identified zoning district **may be compatible** with the corresponding land use category and will need further site-specific review using another tool (the Land Use Development Guidelines). Blank squares indicate the zoning district is **not** compatible with the corresponding land use category.

**INSTRUCTIONS FOR USING THE ZONING COMPATIBILITY MATRIX:** First, use the map on page 111 to identify the Future Land Use Category attributed to a particular parcel. Second, find that use category in the first column of the matrix. Third, follow that row across to identify the Compatible Zoning options for that parcel.

### Future Land Use Development Guidelines *(see next page)*

In addition to conforming with the recommendations of the Future Land Use Map and the Zoning Compatibility Matrix, all rezoning and development proposals should follow the Land Use Development Guidelines (key below; guidelines on the next page).

The table identifies development elements that should be considered before taking these actions: amending the Future Land Use Map, approving a rezoning, or approving a development application for any parcel in the county.

“●” indicates the listed development element is **required** for the corresponding zoning district.

“○” indicates the listed development element is **recommended or encouraged** for the corresponding zoning district, but not required.

Blank squares indicate the identified development element is **not required** or recommended for the corresponding zoning district.

Figure 12. Future Land Use Development Guidelines

Amended 11/14/19, 5/5/22

Development Elements	Zoning Districts											
	A	AR	SF	RS, RC	RM, RMH	RR	C, CH, C-AG	AG-T	ML, MH, SWDRR	ERP	P	RE
<b>Future Land Use Map</b> – The proposed rezoning or use is consistent with the land use designation shown on the Future Land Use Map and any applicable Land Use Overlays.	●		●	●	●	●	●	●	●	●	●	●
<b>Development Regulations</b> – The proposed rezoning or use complies or can comply with all development regulations set forth in the Unified Development Ordinance (UDO).	●		●	●	●	●	●	●	●	●	●	●
<b>Road Standards</b> – The proposed rezoning or use has sufficient access to the Secondary Road network, and the property is accessed – or proposes to access – a road that meets the surfacing and traffic standards set forth in the Road Performance Standards and Site Planning Standards (where applicable.)			●	●	●	●	●	●	●	●	●	
<b>Public Health Regulations</b> – The use has the ability to meet Public Health Department standards for water and waste water.			●	●	●	●	●	●	●	●	●	
<b>Emergency Services</b> – The use proposed by the rezoning will have adequate access to sheriff, fire, and EMS protection.			○	○	●	●	●	●	●	○	●	○
<b>Environmental Impact</b> – The use proposed by the rezoning complies - or is likely to comply - with the Environmental Regulations set forth in Chapter 8:3 of the UDO. The Board will give consideration to the need to balance development and environmental conservation by supporting developments with the ability to minimize and/or mitigate potential negative impacts to the sensitive areas identified in the Environmental Regulations, or areas with unique features such as nature preserves and parks, special native vegetations areas, and sensitive soils.		○	●	●	●	●	●	●	●	○	●	○
<b>Negative Impacts</b> – The use proposed by the rezoning does not cause undue negative impact to the appearance, use, or enjoyment of neighboring properties. Such impacts may include excessive noise, traffic, light, glare, heat, vibration, dust, fumes, smells, vagrancy, and other negative impacts.			○	○	○	●	●	●	●	○	○	○
<b>Agricultural Impact</b> – If the proposed rezoning or use is located in the Agricultural Area of the Future Land Use Map, the Board will give consideration to the need to balance development and agricultural preservation and seek to minimize, to the extent reasonable, the amount of high-quality farmland that is removed from active production. The proposed rezoning or use is not likely to create potential future conflict with neighboring agricultural operations.			○	●	●	●	●	●	●	○	○	○

● = Required Development Element

○ = Recommended Development Element

[blank] = Not a Required Development Element





# IMPLEMENTATION: LAND USE

## IMPLEMENTATION TABLE

The implementation table presents the strategies and action steps developed for each of the plan elements: Sustainability, Local Economy, Infrastructure and Amenities, and Land Use. There are three components in each table: Strategy/Action Step, Timeframe, and Collaborating Partners.

### Goals, Strategies & Action Steps

The goals, strategies, and action steps presented are the same as those presented earlier in this chapter under “Priorities and Goals.”

### Timeframe

An approximate timeframe to complete each action step was determined by staff evaluation. This evaluation considered existing or future funding capacity, expertise and technical capacity of existing staff, and the potential for acquiring additional expertise or technical capacity. The assigned timeframes are estimates; it may take less or more time for any given action step to be completed. Here are the four timeframes:

- Ongoing: Existing strategies that are on a regular cycle or will continue
- Short-term: < 2 years
- Mid-term: 2 to 5 years
- Long-term: > 5 years

### Collaborating Partners

Implementation of the plan strategies involves the actions and decisions of entities other than county government. The success of the comprehensive plan’s vision is dependent on the County’s ability to identify these partners, reach out, and maintain Ongoing communication and coordination. The implementation tables identify suggested collaborating partners; additional organizations may be identified over time, and partners that are not listed are not excluded from future collaboration. For policy and ordinance development, there will be ample opportunity for input through public hearings and meetings.

The following key works for all implementation tables; some abbreviations may not appear in every chapter:

- **BOS:** Johnson County Board of Supervisors
- **CSD:** Community School Districts
- **CVB:** Iowa City/Coralville Convention & Visitors Bureau
- **ECICOG:** East Central Iowa Council of Governments
- **EMA:** Johnson County Emergency Management Agency
- **FEMA:** Federal Emergency Management Agency
- **FSA:** Farm Service Agency
- **ICAD:** Iowa City Area Development Group
- **IDNR:** Iowa Department of Natural Resources
- **I-DOT:** Iowa Department of Transportation
- **IT:** Johnson County Information Technology
- **MPOJC:** Metropolitan Planning Organization of Johnson County
- **NRCS:** Natural Resources Conservation Service
- **PDS:** Johnson County Planning, Development & Sustainability
- **SEATS:** Johnson County SEATS Paratransit
- **SWCD:** Johnson County Soil & Water Conservation District
- **WMA:** Watershed Management Authorities



<b>LND 1 – Promote and protect sustainable agricultural land uses in rural Johnson County.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Advocate for agricultural preservation in all Fringe Area Agreements.</b>		
Action 1 – Pursue adoption of Fringe Area Agreements with cities where no agreement currently exists.	Short-term	PDS, cities
Action 2 – Within the fringe areas, advocate that areas not identified for city growth shall adhere to the county Future Land Use Map.	Mid-term/ Ongoing	PDS, cities
Action 3 – Update all existing Fringe Area Agreements within two years of adoption of the comprehensive plan and review Fringe Area Agreements every three years thereafter.	Mid-term/ Ongoing	PDS, cities
<b>Strategy 2 – Update Johnson County’s agricultural exemption policy.</b>		
Action 1 – Explore methods to expand agricultural exemption to smaller farming operations.	Short-term	PDS, agricultural/ farmer organizations, environmental groups
Action 2 – Ensure that updated agricultural exemption policies do not become a method for siting CAFOs on small parcels.	Short-term/ Ongoing	PDS
Action 3 – Ensure that updated agricultural exemption policies do not become a method for unplanned residential growth.	Short-term/ Ongoing	PDS
Action 4 – Explore methods for limited residential development for small-scale agriculture.	Short-term	PDS
<b>Strategy 3 – Develop recommendations to alleviate conflicts between agricultural property owners and non-agricultural neighboring properties.</b>		
Action 1 – Revise and distribute information on what to expect when moving to rural Johnson County.	Mid-term	BOS, PDS, Public Health, Secondary Roads
Action 2 – Explore creating “good neighbor” guidance that identifies strategies to avoid conflicts between different land uses.	Mid-term	PDS
<b>Strategy 4 – Encourage and promote the use of on-field and edge-of-field best management practices for top soil and water quality protection.</b>		
Action 1 – Staff will stay informed about resources to aid farmers seeking to implement best management practices.	Ongoing	PDS, FSA, SWCD
<b>Strategy 5 – Discourage concentrated animal feeding operations (CAFOs) in Johnson County.</b>		
Action 1 – Continue to lobby the Iowa State Legislature to allow counties the ability to regulate CAFOs.	Ongoing	BOS



STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
Action 2 – Encourage and promote best management practices for CAFOs.	Ongoing	BOS, agricultural/ farmer organizations, environmental groups
Action 3 – Monitor and report the adverse environmental effects of concentrated animal feeding operations (CAFOs) in Johnson County to appropriate agencies.	Ongoing	BOS, Conservation, NRCS
<b>LND 2 – Direct future residential development based on location and then site-specific criteria outlined in the Future Land Use Development Guidelines.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Support rezoning applications that comply with the Future Land Use Map and the Future Land Use Development Guidelines.</b>		
Action 1 – Focus residential development in areas that comply with the Future Land Use Map.	Ongoing	BOS, PDS
Action 2 – Review and potentially update the Future Land Use Map every five years after adoption.	Mid-term	BOS, PDS
Action 3 – Develop a procedure for individual property owners to request a change to the Future Land Use Map.	Short-term	PDS
Action 4 – Develop a procedure for combined rezoning, subdivision, and/or development applications.	Short-term	PDS
Action 5 – Allow for flexibility in the zoning ordinance by adoption of planned unit development (PUD) zoning districts and overlay zones.	Short-term	PDS
<b>Strategy 2 – Support rezoning applications on parcels that meet the standards identified by the Future Land Use Development Guidelines.</b>		
Action 1 – Review and update Stormwater Standards at least every five years.	Mid-term	PDS
Action 2 – Review and update Sensitive Areas Ordinance (SAO) at least every five years.	Mid-term	PDS
Action 3 – Review and update the Road Performance Standards to consider factors such as safety, traffic volume, speed, traffic type, and other national standards.	Short-term	PDS, Secondary Roads
Action 4 – Identify environmentally sensitive area criteria to protect natural areas and prevent conflicting land uses.	Mid-term	PDS, Conservation, NRCS



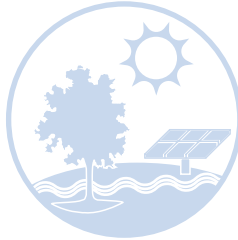
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 3 – Continue use of existing Farmstead Split rule.</b>		
Action 1 – Explore limiting the size and number of agricultural outlots.	Short-term	PDS
Action 2 – Review and revise language as subdivision rules are updated.	Short-term	PDS
<b>LND 3 – Direct future commercial and industrial development based on location and then site-specific criteria.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Encourage commercial and industrial development within the cities and the Urban Growth Areas.</b>		
Action 1 – Discuss and coordinate development activities as part of Fringe Area Agreement negotiations.	Mid-term/ Ongoing	PDS, cities
Action 2 – Encourage new commercial and industrial development to sites that can be served by municipal water and sanitary sewer.	Ongoing	PDS, cities, ICAD
<b>Strategy 2 – Support appropriate commercial and industrial development that complies with the Future Land Use Map.</b>		
Action 1 – Review and update commercial and industrial land use areas every five years.	Mid-term	PDS
Action 2 – Identify vacant or underutilized parcels zoned commercial and/or industrial within the unincorporated areas of Johnson County.	Short-term	PDS
<b>Strategy 3 – Develop overlay and other commercial and industrial zones to allow more flexibility in rural commercial development.</b>		
Action 1 – Develop criteria for where commercial and industrial overlay zones are appropriate.	Short-term	PDS
Action 2 – Develop criteria for where neighborhood commercial uses are appropriate.	Short-term	PDS
Action 3 – Develop criteria for where agritourism uses are appropriate.	Short-term	PDS
<b>LND 4 – Coordinate land use planning with and between local governments to achieve mutually beneficial development policies.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Work with individual cities to update Fringe Area Agreements.</b>		
Action 1 – Pursue adoption of Fringe Area Agreements for cities where no agreement currently exists.	Short-term	PDS, cities
Action 2 – Advocate for the urban growth area of each Fringe Area Agreement to identify areas that may be developed within the next five or fewer years.	Mid-term	PDS, cities





STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
Action 3 – Ensure that areas outside of the urban growth area comply with the county Comprehensive Plan.	Ongoing	PDS, cities
Action 4 – Pursue Fringe Area Agreements that will allow the Board of Supervisors to comment on city development applications that may impact the unincorporated areas (e.g. roads, safety, stormwater management, etc.).	Mid-term	BOS, PDS, cities
Action 5 – Review and update all existing Fringe Area Agreements in accordance with the fringe area agreement schedule contained in Appendix A of this plan.	Short-term	BOS, PDS, cities
<b>Strategy 2 – Work with cities and school districts to pursue collaborative growth strategies for mutual benefit.</b>		
Action 1 – Serve as a resource for the community, city staff, and other organizations regarding regional planning issues.	Ongoing	BOS, PDS
Action 2 – Pursue regional, multijurisdictional intergovernmental agreements.	Long-term/ Ongoing	BOS, PDS, MPOJC, cities, school districts, ECICOG
<b>Strategy 3 – Advocate for stormwater management and sensitive areas preservation when annexation occurs.</b>		
<b>Strategy 4 – Discourage the creation of “unincorporated islands.”</b>		
<b>LND 5 – Continue to protect and improve Johnson County’s natural resources: land, water, and air.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Begin to identify and evaluate all critical and sensitive environmental features in Johnson County.</b>		
Action 1 – Establish criteria to evaluate these areas.	Long-term	PDS, Conservation, NRCS
Action 2 – Coordinate with cities to map sensitive features countywide.	Long-term	PDS, cities, GIS, NRCS
<b>Strategy 2 – Encourage agricultural uses to utilize best management practices and observe conservation practices that prevent erosion and preserve natural resources.</b>		
Action 1 – Ensure staff stay informed of the best management practices and available conservation programs to assist with funding and public education.	Ongoing	BOS, PDS
Action 2 – Promote the use of the Conservation Reserve Program (CRP), the Agricultural Conservation Easement Program (ACEP), or similar programs.	Ongoing	PDS, NRCS
<b>Strategy 3 – Ensure consideration of natural resource and agricultural protection while supporting the development of renewable energy in Johnson County, including both private and utility scale solar and wind.</b>		

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Chapter 6

# Implementation

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# Implementation

## JOHNSON COUNTY

This chapter is the culmination of the comprehensive plan. It compiles all the goals, strategies, and action steps outlined within the previous chapters. The focus of this section is threefold:

- Identify actions designed to improve the long-range planning process, the desired types of growth, including location of growth and areas to preserve;
- Establish a reporting system to monitor the plan progress; and
- Provide a schedule for updating and amending the Plan in the future.

The success of this Comprehensive Plan update is contingent on the implementation of the goals and policies identified in this section. The role of the Board of Supervisors is to set policy and adopt ordinances. This plan is a living guidance document meant to reflect the current and future vision of the county as it evolves over time. It is not the end of the planning process, but the beginning of a coordinated effort to direct growth and development in ways that are important to the residents of Johnson County.



[section 6.1]

# GOALS, STRATEGIES & ACTION STEPS OVERVIEW

In this section, all goals, strategies, and action steps throughout the entire comprehensive plan are brought together. Strategies and action steps give more detail and describe the activities needed to achieve the desired goals of the county. As a reminder, these goals, strategies, and action steps synthesize information from the profile, background information, and public input for this Comprehensive Plan.

**DEFINITION:** Below are definitions of each term and how they will be used in the Implementation Plan section of the comprehensive plan.

- **Goal:** A desired outcome based on the values of the public and elected officials.
- **Strategy:** The approach you take to achieve a goal.
- **Action Step:** The specific steps you take to achieve a strategy.

**FORMAT:** Each goal (e.g. SUST 1) with corresponding strategies (e.g. Strategy 1, Strategy 2) and action steps (e.g. Action 1, Action 2) will be formatted within the final comprehensive plan.

**GOAL 1 – This is an example of a Goal’s formatting.**

**Strategy 1 – This is an example of a Strategy’s formatting.**

Action 1 – This is an example of an Action Step’s formatting.

Action 2 – This is an example of an Action Step’s formatting.

Action 3 – This is an example of an Action Step’s formatting.

## CHAPTER 2: SUSTAINABILITY

**SUSTAINABILITY 1 – Support and implement sustainability strategies that preserve natural resources.**

**Strategy 1 – Revise building permit procedures to improve on-site resource protection.**

Action 1 – Create top soil preservation rules.

Action 2 – Update soil erosion control regulations to require erosion control on certain building permits for new structures.

Action 3 – Create an inspection procedure for sensitive areas, stormwater, topsoil preservation, and soil erosion control for all development sites.

**Strategy 2 – Foster the development of watershed and water quality plans.**

Action 1 – Continue to participate in Watershed Management Authorities and collaborate with local experts.

Action 2 – Incorporate best management practices into stormwater management.



**Strategy 3 – Support and encourage a sustainable agricultural system by working with partners.**

Action 1 – Encourage in-field and edge-of-field best management practices on lands used for row crop production.

**SUSTAINABILITY 2 – Develop and/or coordinate with local and regional hazard mitigation, resiliency, and climate change planning.**

**Strategy 1 – Review and help update the Johnson County Multi-Jurisdictional Hazard Mitigation Plan 2014–2019.**

Action 1 – Consider how the plan’s requirements affect other county goals.

Action 2 – Promote greater coordination between the county, city governments, and other organizations.

Action 3 – Contribute to and comply with future plans as they are created.

Action 4 – Integrate future hazard mitigation plan findings and policies into plans and projects related to land use, transportation, climate change, sustainability, natural and cultural resource protection, watershed management, and economic development.

The *Johnson County Multi-Jurisdictional Hazard Mitigation Plan 2014–2018 (HMP)* is intended to (1) identify how a community can minimize death, injury, property damage, and community disruption caused by natural, human caused, or combination hazards, (2) use a proactive rather than reactive approach to reduce the negative impacts of potential hazards, and (3) maintain eligibility to apply for Hazard Mitigation Grant Program funding, which is available after a federal disaster declaration is issued in Iowa. The plan covers all areas of Johnson County including both rural areas and incorporated cities. Below is a list of hazards both natural and human caused/combination covered in the Johnson County Multi-Jurisdictional HMP:

**NATURAL DISASTERS**

- Tornadoes
- Windstorms
- Extreme Heat
- Hailstorms
- River Flooding
- Sink Holes
- Grass or Wild Land Fire
- Severe Winter Storms

- Drought
- Earthquakes
- Landslide
- Expansive Soils
- Levee Failure
- Dam Failure
- Thunderstorm & Lightning

**HUMAN CAUSED/COMBINATION**

- Human Disease
- Hazardous Materials
- Transportation Incident
- Infrastructure Failure
- Terrorism
- Radiological
- Animal/Plant/Crop Disease

**Strategy 2 – Discourage development in flood-prone areas.**

Action 1 – Use, and educate the public about, Federal Emergency Management Agency (FEMA) digital Flood Hazard Maps and local floodplain regulations.

Action 2 – Consider updates to the Floodplain Development Regulations to improve protection from flood damage.



Action 3 – Adopt the Iowa Department of Natural Resources (DNR) latest model floodplain ordinance with considerations specific to Johnson County.

Action 4 – Establish best management practices.

Action 5 – Secure membership in the National Flood Insurance Program (NFIP) Community Rating System (CRS) or equivalent program.

*WHAT IS THE **COMMUNITY RATING SYSTEM (CRS) PROGRAM**? This program recognizes and encourages community floodplain management activities that exceed the minimum National Flood Insurance Program (NFIP) standards. Depending upon the level of participation, flood insurance premium rates for policyholders can be reduced up to 45%. Besides the benefit of reduced insurance rates, CRS floodplain management activities enhance public safety, reduce damage to property and public infrastructure, help minimize economic disruption and losses, reduce human suffering, and protect the environment in the event of a flood. Participating in the CRS provides an incentive to a community to maintain and improve their floodplain management program. Iowa City and Coralville are two communities in Johnson County that were CRS rated at the time that this plan was adopted. In addition, Linn County had a CRS rating.*

**Strategy 3 – Create a climate action and resiliency plan.**

Action 1 – Coordinate efforts with existing plans and efforts of incorporated areas.

Action 2 – Identify key stakeholders and partners for plan development and implementation.

Action 3 – Coordinate as appropriate with state, national, and international plans and initiatives.

**SUSTAINABILITY 3 – Support affordable and equitable access to quality housing.**

**Strategy 1 – Promote a variety of housing options.**

Action 1 – Encourage, where appropriate, higher density and multifamily housing by using incentives such as density bonuses.

Action 2 – Support efforts to develop affordable rental and owner-occupied housing.

Action 3 – Participate in and/or conduct regional housing studies to identify housing needs.

Action 4 – Consider how housing options relate to coordinated land use goals and transportation in this comprehensive plan.

Action 5 – Adopt and/or develop regulations that accommodate a wider variety of housing types.

**Strategy 2 – Consider establishing a rental housing inspection and licensing program for unincorporated areas.**

Action 1 – Review best management practices.

Action 2 – Dedicate financial resources to fund these, if adopted.



**SUSTAINABILITY 4 – Support and advance energy efficiency, resource conservation, and renewable energy programs.**

**Strategy 1 – Continue partnerships with nonprofit organizations to improve their operations.**

**Strategy 2 – Continue to be a resource to the community on sustainable practices.**

Action 1 – Complete website enhancements to better promote available services.

Action 2 – Provide educational events.

Action 3 – Establish other programs through partnerships with cities, the University of Iowa, community school districts, and other organizations.

**SUSTAINABILITY 5 – Prioritize green building and sustainable development practices for existing and future residential, commercial, and industrial development.**

**Strategy 1 – Require the most up-to-date building code standards.**

Action 1 – Adopt the most current International Building Code (IBC).

**Strategy 2 – Ensure new development conforms to adopted sustainable development standards.**

Action 1 – Create and use a Sustainable Subdivision Design Ordinance to make development decisions.

Action 2 – Revise other standards to reflect sustainable practices.

*A **Sustainable Subdivision Design Ordinance** established by the Board of Supervisors would help ensure that future development is designed efficiently and minimizes impact to the environment. An ordinance could include criteria such as (1) interconnectedness of road networks, (2) density standards, (3) infrastructure provision (current roads), (4) preservation of sensitive areas, (5) provision of sidewalks, trails, and amenities, (6) preservation of open space, (7) shared septic systems, and (8) existing zoning.*

**Strategy 3 – Provide incentives for green development.**

Action 1 – Encourage voluntary practices such as open space preservation, renewable energy, and affordable housing through best practices such as density bonuses.

**Strategy 4 – Revise ordinances to strongly encourage on-site protection and discourage off-site mitigation of sensitive areas.**

**SUSTAINABILITY 6 – Remain a leader in green facilities, operations, and infrastructure.**

**Strategy 1 – Continue to reduce the environmental impact of Johnson County facilities and operational practices.**

Action 1 – Enact management policies to introduce and advance practices.

Action 2 – Continue to coordinate with the capital improvement plans and follow the Sustainability Capital Standards Process or subsequent policies.

Action 3 – Initiate and maintain energy and resource conservation and efficiency practices.





Action 4 – Adopt sustainable infrastructure practices on county road and parking projects.

Action 5 – Continue to utilize solar power and consider other renewables for county facilities.

Action 6 – Promote non-single occupancy vehicle use such as mass transit, carpooling, bicycling, etc.

**Strategy 2 – Coordinate efforts with local organizations, institutions, and agencies.**

Action 1 – Continue to work with groups such as the Sustainability Working Group of Johnson County.

Action 2 – Provide employee and public education events such as Earth Week and Bike Month.



## CHAPTER 3: LOCAL ECONOMY

### LOCAL ECONOMY 1 – Foster a diverse and resilient local economy.

#### Strategy 1 – Support industries that complement and enhance the existing local economy.

Action 1 – Identify targeted industries that support a livable wage and a clean energy economy.

*WHAT IS THE **CLEAN ENERGY ECONOMY**? The Pew Charitable Trusts (2009) states: “A clean energy economy generates jobs, businesses and investments while expanding clean energy production, increasing energy efficiency, reducing greenhouse gas emissions, waste and pollution, and conserving water and other natural resources.” Pew additionally explains that this economy cuts across five categories: (1) Clean Energy; (2) Energy Efficiency; (3) Environmentally Friendly Production; (4) Conservation and Pollution Mitigation; and (5) Training and Support.*

#### Strategy 2 – Accommodate rural businesses that provide employment and consumer opportunities that improve the livability of Johnson County in appropriate areas.

Action 1 – Develop agritourism zoning regulations to allow greater flexibility for value-added agriculture activities.

Action 2 – Develop neighborhood commercial zoning regulations to allow low-intensity commercial activities.

Action 3 – Support efforts to expand telecommunication infrastructure for rural areas (e.g. high-speed Internet).

Action 4 – Support the local food industry in Johnson County.

*WHAT IS A **NEIGHBORHOOD COMMERCIAL ZONE**? This zone would allow small-scale and low-intensity retail and service uses that support nearby residential areas including, but not limited to, beauty salons, tourist shops, office space, and repair shops.*

#### Strategy 3 – Promote the county’s natural amenities and livable communities to attract new economic activities.

Action 1 – Use economic development and tourism promotion organizations as a resource to promote Johnson County.

Action 2 – Highlight quality-of-life rankings and other awards on the Johnson County website.

Action 3 – Partner with local cities and regional entities to promote and recruit targeted industrial clusters that benefit the local economy and support the quality of life in Johnson County.



**WHAT ARE TARGETED INDUSTRY CLUSTERS?** An industry cluster is a group of firms, and related economic institutions, that are located near one another and that draw productive advantage from their proximity and connections. According to the Iowa City Area Development Group (ICAD), the targeted industry clusters for Johnson County include:

- *Advanced Manufacturing*
- *Educational Services*
- *Autonomous Vehicle Systems*
- *Information Technologies*
- *Biotechnology*
- *Natural Products*
- *Data Centers*
- *Renewable Energy*

**Strategy 4 – Encourage partnerships between business and educational institutions to advance job skills and promote labor retention.**

- Action 1 – Explore using County facilities as resource centers to connect businesses with local experts.
- Action 2 – Promote the resources provided by the University of Iowa, Kirkwood Community College, and other major institutions to attract and retain businesses.
- Action 3 – Coordinate with community school districts in the county to provide and promote educational opportunities for primary and secondary students.

**LOCAL ECONOMY 2 – Ensure that new and expanding commercial and industrial uses will follow the County’s adopted Economic Development Plan.**

**Strategy 1 – Update and maintain an Economic Development Plan for unincorporated Johnson County.**

- Action 1 – Clearly define Johnson County’s role in economic development.
- Action 2 – Include Economic Development Areas in the Future Land Use Map.
- Action 3 – Obtain a Target Industry Analysis.

**Strategy 2 – Regularly review and update the Economic Development Plan and its policies.**

- Action 1 – Review economic development best management practices and economic development areas on the Future Land Use Map at least every five years upon adoption.

**LOCAL ECONOMY 3 – Encourage sustainable agricultural activities.**

**Strategy 1 – Explore methods to accommodate smaller farming operations.**

**Strategy 2 – Support farmers who wish to maintain and expand agricultural activities in accordance with the goals of this plan.**

- Action 1 – Support local, state, and federal programs designed to assist sustainable farming operations.
- Action 2 – Support conservation and natural resource management programs.

**Strategy 3 – Promote and support local food and small farm operations.**

- Action 1 – Continue to provide staff support for local food and agritourism activities.
- Action 2 – Continue to support resident engagement to improve discussion and action on food and agricultural initiatives in Johnson County.
- Action 3 – Support efforts to develop infrastructure and programs that encourage public institutions, restaurants, and other entities to purchase more locally grown food.
- Action 4 – Explore flexible zoning regulations to encourage local food production.
- Action 5 – Explore food hub and food enterprise options that include food processing, packaging, and storage.
- Action 6 – Collaborate with cities to encourage food production opportunities, such as community gardens, within city limits.

**LOCAL ECONOMY 4 – Provide opportunities for sustainable commercial and industrial activities that enhance livability and are compatible with surrounding land uses.****Strategy 1 – Revise the site plan review process to address varying levels of intensity.**

- Action 1 – Incorporate scalable rules for size and intensity in site plan review to allow for appropriate review of smaller developments.
- Action 2 – Create and use a matrix to provide multiple ways to achieve compliance with site plan regulations.

**Strategy 2 – Direct large-scale commercial and industrial development projects to the cities and Urban Growth Areas, where utilities, services, transportation, and other infrastructure are (or can be) readily available.**

- Action 1 – Coordinate with local and regional business and economic development organizations.

**Strategy 3 – Direct smaller-scale, less-intensive commercial and industrial development projects to cities, unincorporated villages, or economic development areas as identified in the Future Land Use Map (see Chapter 5 Land Use).**

- Action 1 – Identify and review development opportunities within the unincorporated villages.
- Action 2 – Engage residents and update village plans accordingly.



# CHAPTER 4: INFRASTRUCTURE & AMENITIES

## INFRASTRUCTURE & AMENITIES 1 – Develop well-connected recreational parks, public open/natural spaces, and trails throughout the county.

### Strategy 1 – Improve connectivity between subdivisions, open space, and destinations that generate traffic.

- Action 1 – Identify and map opportunities to create greater connectivity between existing developments.
- Action 2 – Support local and regional trail plans.
- Action 3 – Continue to serve on and work with existing area and regional trails committees.
- Action 4 – Facilitate improvements recommended by water trail plans.

## INFRASTRUCTURE & AMENITIES 2 – Utilize existing infrastructure and adopt green infrastructure practices.

### Strategy 1 – Coordinate development policies with road improvement and maintenance plans.

- Action 1 – Have planning staff participate in the annual review of the Johnson County Secondary Roads Five-Year Plan.
- Action 2 – Review and update the existing Road Performance Standards to consider factors such as safety, volume, speed, traffic type, and other national standards.
- Action 3 – Identify and consider projects to optimize the use of existing public infrastructure.

### Strategy 2 – Encourage the use of green infrastructure.

- Action 1 – Identify opportunities to use green infrastructure instead of traditional practices.
- Action 2 – Explore potential incentives such as density bonuses.



**WHAT IS GREEN INFRASTRUCTURE?** Green infrastructure utilizes natural vegetation to capture, store, and infiltrate stormwater runoff such as bioswales (large water collector), rain gardens (small water collector), and green roofs pictured above. It provides a range of critical functions and ecosystem services to communities, such as wildlife habitat, stormwater management, and recreational opportunities.\*

\*Photo credits (from left to right):  
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**Strategy 3 – Coordinate with regional transportation investments and long-range transportation plans.**

Action 1 – Actively participate in local and regional planning activities.

**INFRASTRUCTURE & AMENITIES 3 – Make transportation, land use, and infrastructure decisions that encourage a reduction in auto-dependent travel.**

**Strategy 1 – Promote safe use of the county’s public road network by all users.**

Action 1 – Identify best management practices for rural road systems.

Action 2 – Consider complete street features as appropriate for higher density areas.

Action 3 – Provide appropriate multimodal signage on highways and other major roads with extended shoulders.

**Strategy 2 – Support development that will reduce vehicle miles traveled.**

Action 1 – Require connectivity plans for new subdivisions, showing intended connections to the existing and planned trail and road network.

Action 2 – Update the subdivision regulations to require connectivity plans and limit the creation of cul-de-sac and dead-end roads unless impractical.

Action 3 – Add requirements for sidewalks and trail connectivity to the subdivision regulations.

**INFRASTRUCTURE & AMENITIES 4 – Support environmental, cultural, and historic elements in the planning and design of future infrastructure.**

**Strategy 1 – Protect and raise awareness of environmental amenities and character of the county.**

Action 1 – Develop an ordinance that balances scenic road features, safety requirements, and Secondary Road plans.

Action 2 – Establish criteria to identify environmental, cultural, and historic elements.

Action 3 – Work with the Iowa Department of Transportation to develop watershed educational standards including roadway signage.

**INFRASTRUCTURE & AMENITIES 5 – Support amenities that enhance livability and quality of life.**

**Strategy 1 – Support the Johnson County Conservation Strategic Plan.**

Action 1 – Consider revisions to align zoning ordinance and other County policies.

**Strategy 2 – Promote livability initiatives across all Johnson County departments.**

Action 1 – Encourage livability initiatives within all administrative activities across all Johnson County departments.

**Strategy 3 – Support appropriate special events and activities across Johnson County.**

Action 1 – Establish new or promote existing central events calendar.

Action 2 – Consider grant incentives and programs that support and develop events or



activities that benefit the county.

**Strategy 4 – Consider improvements to communication infrastructure and access to technology in coordination with economic development goals.**

**Strategy 5 – Become a leader in food system infrastructure.**

Action 1 – Develop and adopt a countywide food system plan.

Action 2 – Explore options to utilize existing infrastructure and build new infrastructure that supports the local food system (e.g food hub, distribution centers, etc.).



## CHAPTER 5: LAND USE

### LAND USE 1 – Promote and protect sustainable agricultural land uses in rural Johnson County.

**SUSTAINABLE AGRICULTURE** includes practices that satisfy the food and income requirements of farmers, provide people with a healthy and affordable diet, protect environmental quality and human health, and contribute to the vitality of rural and urban communities.

#### Strategy 1 – Advocate for agricultural preservation in all Fringe Area Agreements.

- Action 1 – Pursue adoption of Fringe Area Agreements with cities where no agreement currently exists.
- Action 2 – Within the fringe areas, advocate that areas not identified for city growth shall adhere to the county Future Land Use Map.
- Action 3 – Update all existing Fringe Area Agreements within two years of adoption of the comprehensive plan and review Fringe Area Agreements every three years thereafter.

#### Strategy 2 – Update Johnson County’s agricultural exemption policy.

- Action 1 – Explore methods to expand agricultural exemption to smaller farming operations.
- Action 2 – Ensure that updated agricultural exemption policies do not become a method for siting CAFOs on small parcels.
- Action 3 – Ensure that updated agricultural exemption policies do not become a method for unplanned residential growth.
- Action 4 – Explore methods for limited residential development for small-scale agriculture.

#### Strategy 3 – Develop recommendations to alleviate conflicts between agricultural property owners and non-agricultural neighboring properties.

- Action 1 – Revise and distribute information on what to expect when moving to rural Johnson County.
- Action 2 – Explore creating “good neighbor” guidance that identifies strategies to avoid conflicts between different land uses.

What are **GOOD NEIGHBOR POLICIES**? The decision to move from the city and live in rural areas may mean encountering unfamiliar sights, sounds, and smells. Good neighbor policies help to set expectations for residential households and adjacent agricultural uses, and how best to approach a conflict should it arise.

#### Strategy 4 – Encourage and promote the use of on-field and edge-of-field best management practices for top soil and water quality protection.

- Action 1 – Staff will stay informed about resources to aid farmers seeking to implement best management practices.



**Strategy 5 – Discourage concentrated animal feeding operations (CAFOs) in Johnson County.**

- Action 1 – Continue to lobby the Iowa State Legislature to allow counties the ability to regulate CAFOs.
- Action 2 – Encourage and promote best management practices for CAFOs.
- Action 3 – Monitor and report the adverse environmental effects of concentrated animal feeding operations (CAFOs) in Johnson County to appropriate agencies.

**LAND USE 2 – Direct future residential development based on location and then site-specific criteria outlined in the Future Land Use Development Guidelines.****Strategy 1 – Support rezoning applications that comply with the Future Land Use Map and the Future Land Use Development guidelines.**

- Action 1 – Focus residential development in areas that comply with the Future Land Use Map.
- Action 2 – Review and potentially update the Future Land Use Map every five years after adoption.
- Action 3 – Develop a procedure for individual property owners to request a change to the Future Land Use Map.
- Action 4 – Develop a procedure for combined rezoning, subdivision, and/or development applications.
- Action 5 – Allow for flexibility in the zoning ordinance by adoption of planned unit development (PUD) zoning districts and overlay zones.

**Strategy 2 – Support rezoning applications on parcels that meet the standards identified by the Future Land Use Development Guidelines.**

- Action 1 – Review and update Stormwater Standards at least every five years.
- Action 2 – Review and update Sensitive Areas Ordinance (SAO) at least every five years.
- Action 3 – Review and update the Road Performance Standards to consider factors such as safety, traffic volume, speed, traffic type, and other national standards.
- Action 4 – Identify environmentally sensitive area criteria to protect natural areas and prevent conflicting land uses.

**Strategy 3 – Continue use of existing Farmstead Split rule.**

- Action 1 – Explore limiting the size and number of agricultural outlots.
- Action 2 – Review and revise language as subdivision rules are updated.



**LAND USE 3 – Direct future commercial and industrial development based on location and then site-specific criteria.**

**Strategy 1 – Encourage commercial and industrial development within the cities and the Urban Growth Areas.**

- Action 1 – Discuss and coordinate development activities as part of Fringe Area Agreement negotiations.
- Action 2 – Encourage new commercial and industrial development to sites that can be served by municipal water and sanitary sewer.

**Strategy 2 – Support appropriate commercial and industrial development that complies with the Future Land Use Map.**

- Action 1 – Review and update commercial and industrial land use areas every five years.
- Action 2 – Identify vacant or underutilized parcels zoned commercial and/or industrial within the unincorporated areas of Johnson County.

**Strategy 3 – Develop overlay and other commercial and industrial zones to allow more flexibility in rural commercial development.**

- Action 1 – Develop criteria for where commercial and industrial overlay zones are appropriate.
- Action 2 – Develop criteria for where neighborhood commercial uses are appropriate.
- Action 3 – Develop criteria for where agritourism uses are appropriate.

**LAND USE 4 – Coordinate land use planning with and between local governments to achieve mutually beneficial development policies.**

**Strategy 1 – Work with individual cities to update Fringe Area Agreements.**

- Action 1 – Pursue adoption of Fringe Area Agreements for cities where no agreement currently exists.
- Action 2 – Advocate for the urban growth area of each Fringe Area Agreement to identify areas that may be developed within the next five or fewer years.
- Action 3 - Ensure that areas outside of the urban growth area comply with the county Comprehensive Plan.
- Action 4 – Pursue Fringe Area Agreements that will allow the Board of Supervisors to comment on city development applications that may impact the unincorporated areas (e.g. roads, safety, stormwater management, etc.).
- Action 5 – Review and update all existing Fringe Area Agreements in accordance with the fringe area agreement schedule contained in Appendix A of this plan.

**Strategy 2 – Work with cities and school districts to pursue collaborative growth strategies for mutual benefit.**

- Action 1 – Serve as a resource for the community, city staff, and other organizations regarding regional planning issues.
- Action 2 – Pursue regional, multijurisdictional intergovernmental agreements.



**Strategy 3 – Advocate for stormwater management and sensitive areas preservation when annexation occurs.**

**Strategy 4 – Discourage the creation of “unincorporated islands.”**

What are **UNINCORPORATED ISLANDS**? An island is a pocket of unincorporated land that is substantially surrounded by a city. This is the result of annexation by a city when they want to incorporate a parcel of land but not the entire area contiguous to their current city boundary. In order to meet state code, the island parcel must be connected to the county by a 40-foot strip of land.

**LAND USE 5 – Continue to protect and improve Johnson County’s natural resources: land, water, and air.**

**Strategy 1 – Begin to identify and evaluate all critical and sensitive environmental features in Johnson County.**

Action 1 – Establish criteria to evaluate these areas.

Action 2 – Coordinate with cities to map sensitive features countywide.

**Strategy 2 – Encourage agricultural uses to utilize best management practices and observe conservation practices that prevent erosion and preserve natural resources.**

Action 1 – Ensure staff stay informed of the best management practices and available conservation programs to assist with funding and public education.

Action 2 – Promote the use of the Conservation Reserve Program (CRP), the Agricultural Conservation Easement Program (ACEP), or similar programs.

The **CONSERVATION RESERVE PROGRAM (CRP)** is a land conservation program administered by the Farm Service Agency (FSA). In exchange for a yearly rental payment, farmers enrolled in the program agree to remove environmentally sensitive land from agricultural production and plant species that will improve environmental health and quality. Contracts for land enrolled in CRP are 10–15 years in length. The long-term goal of the program is to reestablish valuable land cover to help improve water quality, prevent soil erosion, and reduce loss of wildlife habitat.

The **AGRICULTURAL CONSERVATION EASEMENT PROGRAM (ACEP)** provides financial and technical assistance to help conserve working agricultural lands and complete wetland restoration and protection projects.



[section 6.2]

# IMPLEMENTATION MATRIX

The implementation table presents the strategies and action steps developed for each of the plan elements: Sustainability, Local Economy, Infrastructure and Amenities, and Land Use. There are three components in each table: Strategy/Action Step, Timeframe, and Collaborating Partners.

## Goals, Strategies & Action Steps

The goals, strategies, and action steps presented are the same as those in earlier under “Priorities and Goals” in each topic chapter (Sustainability, Local Economy, Infrastructure, and Land Use).

## Timeframe

An approximate timeframe to complete each action step was determined by staff evaluation. This evaluation considered existing or future funding capacity, expertise and technical capacity of existing staff, and the potential for acquiring additional expertise or technical capacity. The assigned timeframes are estimates; it may take less or more time for any given action step to be completed. Here are the four timeframes:

- Ongoing: Existing strategies that are on a regular cycle or will continue
- Short-term: < 2 years
- Mid-term: 2 to 5 years
- Long-term: > 5 years

## Collaborating Partners

Implementation of the plan strategies involves the actions and decisions of entities other than county government. The success of the comprehensive plan’s vision is dependent on the County’s ability to identify these partners, reach out, and maintain Ongoing communication and coordination. The implementation tables identify suggested collaborating partners; additional organizations may be identified over time and partners that are not listed are not excluded from future collaboration. For policy and ordinance development, there will be ample opportunity for input through public hearings and meetings.

The following key works for all implementation tables; some abbreviations may not appear in every chapter:

- **BOS:** Johnson County Board of Supervisors
- **CSD:** Community School Districts
- **CVB:** Iowa City/Coralville Convention & Visitors Bureau
- **ECICOG:** East Central Iowa Council of Governments
- **EMA:** Johnson County Emergency Management Agency
- **FEMA:** Federal Emergency Management Agency
- **FSA:** Farm Service Agency
- **ICAD:** Iowa City Area Development Group
- **IDNR:** Iowa Department of Natural Resources
- **I-DOT:** Iowa Department of Transportation
- **IT:** Johnson County Information Technology
- **MPOJC:** Metropolitan Planning Organization of Johnson County
- **NRCS:** Natural Resources Conservation Service
- **PDS:** Johnson County Planning, Development & Sustainability
- **SEATS:** Johnson County SEATS Paratransit
- **SWCD:** Johnson County Soil & Water Conservation District
- **WMA:** Watershed Management Authorities



## CHAPTER 2: SUSTAINABILITY

<b>SUST 1 – Support and implement sustainability strategies that preserve natural resources.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Revise building permit procedures to improve on-site resource protection.</b>		
Action 1 – Create top soil preservation rules.	Short-term	PDS, NRCS, SWCD
Action 2 – Update soil erosion control regulations to require erosion control on certain building permits for new structures.	Mid-term	PDS, NRCS, SWCD
Action 3 – Create an inspection procedure for sensitive areas, stormwater, topsoil preservation, and soil erosion control for all development sites.	Short-term	PDS, NRCS, SWCD
<b>Strategy 2 – Foster the development of watershed and water quality plans.</b>		
Action 1 – Continue to participate in Watershed Management Authorities and collaborate with local experts.	Ongoing	BOS, various WMAs, Iowa Flood Center
Action 2 – Incorporate best management practices into stormwater management.	Short-term	PDS, NRCS, SWCD
<b>Strategy 3 – Support and encourage a sustainable agricultural system by working with partners.</b>		
Action 1 – Encourage in-field and edge-of-field best management practices on lands used for row crop production.	Ongoing	PDS, NRCS, SWCD
<b>SUST 2 – Develop and/or coordinate with local and regional hazard mitigation, resiliency, and climate change planning.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Review and help update the Johnson County Multi-Jurisdictional Hazard Mitigation Plan 2014–2019.</b>		
Action 1 – Consider how the plan’s requirements affect other county goals.	Short-term	BOS, PDS, EMA
Action 2 – Promote greater coordination between the county, city governments, and other organizations.	Ongoing	BOS, PDS, EMA, cities, ECICOG, CSD
Action 3 – Contribute to and comply with future plans as they are created.	Ongoing	BOS, PDS, EMA, ECICOG
Action 4 – Integrate future hazard mitigation plan findings and policies into plans and projects related to land use, transportation, climate change, sustainability, natural and cultural resource protection, watershed management, and economic development.	Mid-term	BOS, PDS, EMA, Secondary Roads, Conservation



STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 2 – Discourage development in flood-prone areas.</b>		
Action 1 – Use, and educate the public about, Federal Emergency Management Agency (FEMA) digital Flood Hazard Maps and local floodplain regulations.	Ongoing	PDS, IDNR, EMA, FEMA
Action 2 – Consider updates to the Floodplain Development Regulations to improve protection from flood damage.	Mid-term	PDS, IDNR, EMA
Action 3 – Adopt the Iowa Department of Natural Resources (IDNR) latest model floodplain ordinance with considerations specific to Johnson County.	Short-term	PDS, IDNR, EMA
Action 4 – Establish best management practices.	Mid-term	PDS, IDNR, EMA
Action 5 – Secure membership in the National Flood Insurance Program (NFIP) Community Rating System (CRS) or equivalent program.	Mid-term	PDS, IDNR, EMA
<b>Strategy 3 – Create a climate action and resiliency plan.</b>		
Action 1 – Coordinate efforts with existing plans and efforts of incorporated areas.	Mid-term	BOS, PDS, cities, EMA
Action 2 – Identify key stakeholders and partners for plan development and implementation.	Mid-term	BOS, PDS, cities, EMA
Action 3 – Coordinate as appropriate with state, national, and international plans and initiatives.	Mid-term	BOS, PDS, cities, EMA
<b>SUST 3 – Support affordable and equitable access to quality housing.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Promote a variety of housing options.</b>		
Action 1 – Encourage, where appropriate, higher density and multifamily housing by using incentives such as density bonuses.	Short-term	PDS, Livable Communities Advisory Committee, Housing Trust Fund
Action 2 – Support efforts to develop affordable rental and owner-occupied housing.	Ongoing	BOS, PDS, local housing experts
Action 3 – Participate in and/or conduct regional housing studies to identify housing needs.	Ongoing/ Mid-Term	BOS, PDS, local housing experts, MPOJC
Action 4 – Consider how housing options relate to coordinated land use goals and transportation in this comprehensive plan.	Ongoing	BOS, PDS, local housing experts, MPOJC
Action 5 – Adopt and/or develop regulations that accommodate a wider variety of housing types.	Short-term/ Ongoing	BOS, PDS, local housing experts



STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 2 – Consider establishing a rental housing inspection and licensing program for unincorporated areas.</b>		
Action 1 – Review best management practices.	Mid-term	PDS, cities, rural landlords
Action 2 – Dedicate financial resources to fund, if adopted.	Ongoing	BOS, rural landlords
<b>SUST 4 – Support and advance energy efficiency, resource conservation, and renewable energy programs, policies, and uses.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Continue partnerships with nonprofit organizations to improve their operations.</b>		
<b>Strategy 2 – Continue to be a resource to the community on sustainable practices.</b>		
Action 1 – Complete website enhancements to better promote available services.	Ongoing	PDS, IT
Action 2 – Provide educational events.	Ongoing	Multiple
Action 3 – Establish other programs through partnerships with cities, the University of Iowa, community school districts, and other organizations.	Ongoing	Multiple
<b>Strategy 3 – Support the development of utility scale solar in Johnson County.</b>		
Action 1 – Identify and mitigate barriers to the appropriate development and use of energy efficiency, energy conservation, and renewable energy, including utility scale solar.	Ongoing	PDS, Energy Experts
Action 2 – Incorporate best practices into programs, policies, and code.	Ongoing	PDS, BOS
Action 3 – Ensure consideration of natural resources and agricultural protection.	Ongoing	PDS, NCRS, SWCD
<b>SUST 5 – Prioritize green building and sustainable development practices for existing and future residential, commercial, and industrial development.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Require the most up-to-date building code standards.</b>		
Action 1 – Adopt the most current International Building Code (IBC).	Ongoing	PDS
<b>Strategy 2 – Ensure new development conforms to adopted sustainable development standards.</b>		
Action 1 – Create and use a Sustainable Subdivision Design Ordinance to make development decisions.	Short-term	PDS
Action 2 – Revise other standards to reflect sustainable practices.	Short-term	PDS
<b>Strategy 3 – Provide incentives for green development.</b>		
Action 1 – Encourage voluntary practices such as open space preservation, renewable energy, and affordable housing through best practices such as density bonuses.	Ongoing	PDS



STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 4 – Revise ordinances to strongly encourage on-site protection and discourage off-site mitigation of sensitive areas.</b>		
<b>SUST 6 – Remain a leader in green facilities, operations, and infrastructure.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Continue to reduce the environmental impact of Johnson County facilities and operational practices.</b>		
Action 1 – Enact management policies to introduce and advance practices.	Mid-term	BOS, PDS, Facilities
Action 2 – Continue to coordinate with the capital improvement plans and follow the Sustainability Capital Standards Process or subsequent policies.	Ongoing	BOS, PDS, Facilities
Action 3 – Initiate and maintain energy and resource conservation and efficiency practices.	Ongoing	BOS, PDS, Facilities
Action 4 – Adopt sustainable infrastructure practices on county road and parking projects.	Mid-term/ Ongoing	BOS, PDS, Secondary Roads, Facilities
Action 5 – Continue to utilize solar power and consider other renewables for county facilities.	Ongoing	BOS, PDS, Facilities
Action 6 – Promote non-single occupancy vehicle use such as mass transit, carpooling, bicycling, etc.	Ongoing	BOS, SEATS, Green Team
<b>Strategy 2 – Coordinate efforts with local organizations, institutions, and agencies.</b>		
Action 1 – Continue to work with groups such as the Sustainability Working Group of Johnson County.	Ongoing	BOS, PDS, Green Team
Action 2 – Provide employee and public education events such as Earth Week and Bike Month.	Ongoing	BOS, PDS, Green Team
<b>ECON 1 – Foster a diverse and resilient local economy.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Support industries that complement and enhance the existing local economy.</b>		
Action 1 – Identify targeted industries that support a livable wage and a clean energy economy.	Long-term	BOS, cities, ICAD
<b>Strategy 2 – Accommodate rural businesses that provide employment and consumer opportunities that improve the livability of Johnson County in appropriate areas.</b>		
Action 1 – Develop agritourism zoning regulations to allow greater flexibility for value-added agriculture activities.	Short-term	PDS
Action 2 – Develop neighborhood commercial zoning regulations to allow low-intensity commercial activities.	Short-term	PDS





STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
Action 3 – Support efforts to expand telecommunication infrastructure for rural areas (e.g. high-speed Internet).	Ongoing	PDS, Secondary Roads, telecom providers
Action 4 – Support the local food industry in Johnson County.	Ongoing	BOS, PDS, Food Policy Council
<b>Strategy 3 – Promote the county’s natural amenities and livable communities to attract new economic activities.</b>		
Action 1 – Use economic development and tourism promotion organizations as a resource to promote Johnson County.	Ongoing	BOS, cities, ICAD, CVB
Action 2 – Highlight quality of life rankings and other awards on the Johnson County website.	Ongoing	BOS, IT
Action 3 – Partner with local cities and regional entities to promote and recruit targeted industrial clusters that benefit the local economy and support the quality-of-life in Johnson County.	Long-term	BOS, cities, ICAD
<b>Strategy 4 – Encourage partnerships between business and educational institutions to advance job skills and promote labor retention.</b>		
Action 1 – Explore using County facilities as resource centers to connect businesses with local experts.	Ongoing	BOS, PDS, ICAD, CSD, Food Policy Council
Action 2 – Promote the resources provided by the University of Iowa, Kirkwood Community College, and other major institutions to attract and retain businesses.	Ongoing	BOS, cities, ICAD, U-Iowa, Kirkwood
Action 3 – Coordinate with community school districts in the county to provide and promote educational opportunities for primary and secondary students.	Ongoing	CSD
<b>ECON 2 – Ensure that new and expanding commercial and industrial uses will follow the county’s adopted Economic Development Plan.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Update and maintain an Economic Development Plan for unincorporated Johnson County.</b>		
Action 1 – Clearly define Johnson County’s role in economic development.	Mid-term	BOS
Action 2 – Include Economic Development Areas in the Future Land Use Map.	Short-term	PDS
Action 3 – Obtain a Target Industry Analysis.	Long-term	ICAD
<b>Strategy 2 – Regularly review and update the Economic Development Plan and its policies.</b>		
Action 1 – Review economic development best management practices and economic development areas on the Future Land Use Map at least every five years upon adoption.	Mid-term/ Ongoing	PDS



<b>ECON 3 – Encourage sustainable agricultural activities.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Explore methods to accommodate smaller farming operations.</b>		
<b>Strategy 2 – Support farmers who wish to maintain and expand agricultural activities in accordance with the goals of this plan.</b>		
Action 1 – Support local, state, and federal programs designed to assist sustainable farming operations.	Ongoing	BOS, USDA, NRCS, IDNR, FSA, agricultural/farmer organizations
Action 2 – Support conservation and natural resource management programs.	Ongoing	BOS, Conservation, NRCS
<b>Strategy 3 – Promote and support local food and small farm operations.</b>		
Action 1 – Continue to provide staff support for local food and agritourism activities.	Short-term/ Ongoing	BOS, PDS, Food Policy Council
Action 2 – Continue to support resident engagement to improve discussion and action on food and agricultural initiatives in Johnson County.	Ongoing	BOS, PDS, Food Policy Council
Action 3 – Support efforts to develop infrastructure and programs that encourage public institutions, restaurants, and other entities to purchase more locally grown food.	Mid-term	BOS, PDS, Food Policy Council
Action 4 – Explore flexible zoning regulations to encourage local food production.	Mid-term	PDS, Food Policy Council
Action 5 – Explore food hub and food enterprise options that include food processing, packaging, and storage.	Long-term	BOS, PDS, Food Policy Council, ICAD
Action 6 – Collaborate with cities to encourage food production opportunities, such as community gardens, within city limits.	Ongoing	cities, Food Policy Council
<b>Strategy 4 – Support the development of utility scale solar in Johnson County.</b>		
<b>ECON 4 – Provide opportunities for sustainable commercial and industrial activities that enhance livability and are compatible with surrounding land uses.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Revise the site plan review process to address varying levels of intensity.</b>		
Action 1 – Incorporate scalable rules for size and intensity in site plan review to allow for appropriate review of smaller developments.	Short-term	PDS
Action 2 – Create and use a matrix to provide multiple ways to achieve compliance with site plan regulations.	Short-term	PDS
<b>Strategy 2 – Direct large-scale commercial and industrial development projects to the cities and Urban Growth Areas, where utilities, services, transportation, and other infrastructure are (or can be) readily available.</b>		
Action 1 – Coordinate with local and regional business and economic development organizations.	Ongoing	BOS, PDS, cities, ICAD



STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 3 – Direct smaller-scale, less-intensive commercial and industrial development projects to cities, unincorporated villages, or economic development areas as identified in the Future Land Use Map (see Chapter 5 Land Use).</b>		
Action 1 – Identify and review development opportunities within the unincorporated villages.	Short-term	PDS
Action 2 – Engage residents and update village plans accordingly.	Mid-term	BOS, PDS, village communities

## CHAPTER 4: INFRASTRUCTURE & AMENITIES

### INF 1 – Develop well-connected recreational parks, public open/natural spaces, and trails throughout the county.

STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Improve connectivity between subdivisions, open space, and destinations that generate traffic.</b>		
Action 1 – Identify and map opportunities to create greater connectivity between existing developments.	Mid-term	PDS, MPOJC, Secondary Roads
Action 2 – Support local and regional trail plans.	Ongoing	PDS, MPOJC, ECICOG, Secondary Roads, Conservation
Action 3 – Continue to serve on and work with existing area and regional trails committees.	Ongoing	PDS, MPOJC, ECICOG, Secondary Roads, Conservation
Action 4 – Facilitate improvements recommended by water trail plans.	Ongoing	BOS, PDS, Conservation, IDNR, local paddling groups, Iowa Water Trails Assoc.

### INF 2 – Utilize existing infrastructure and adopt green infrastructure practices.

STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Coordinate development policies with road improvement and maintenance plans.</b>		
Action 1 – Have planning staff participate in the annual review of the Johnson County Secondary Roads Five-Year Plan.	Short-term	PDS
Action 2 – Review and update the existing Road Performance Standards to consider factors such as safety, volume, speed, traffic type, and other national standards.	Ongoing	PDS, Secondary Roads
Action 3 – Identify and consider projects to optimize the use of existing public infrastructure.	Short-term	PDS, Secondary Roads



STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 2 – Encourage the use of green infrastructure.</b>		
Action 1 – Identify opportunities to use green infrastructure instead of traditional practices.	Long-term	PDS, Secondary Roads
Action 2 – Explore potential incentives such as density bonuses.	Short-term	PDS
<b>Strategy 3 – Coordinate with regional transportation investments and long-range transportation plans.</b>		
Action 1 – Actively participate in local and regional planning activities.	Ongoing	PDS, cities, MPOJC, ECICOG
<b>INF 3 – Make transportation, land use, and infrastructure decisions that encourage a reduction in auto-dependent travel.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Promote safe use of the county’s public road network by all users.</b>		
Action 1 – Identify best management practices for rural road systems.	Mid-term	Secondary Roads
Action 2 – Consider complete street features as appropriate for higher density areas.	Short-term	Secondary Roads
Action 3 – Provide appropriate multimodal signage on highways and other major roads with extended shoulders.	Mid-term	Secondary Roads
<b>Strategy 2 – Support development that will reduce vehicle miles traveled.</b>		
Action 1 – Require connectivity plans for new subdivisions, showing intended connections to the existing and planned trail and road network.	Short-term	PDS, Secondary Roads
Action 2 – Update the subdivision regulations to require connectivity plans and limit the creation of cul-de-sac and dead-end roads unless impractical.	Short-term	PDS
Action 3 – Add requirements for sidewalks and trail connectivity to the subdivision regulations.	Short-term	PDS
<b>INF 4 – Support environmental, cultural, and historic elements in the planning and design of future infrastructure.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Protect and raise awareness of environmental amenities and character of the county.</b>		
Action 1 – Develop an ordinance that balances scenic road features, safety requirements, and Secondary Road plans.	Long-term	BOS, PDS, Secondary Roads
Action 2 – Establish criteria to identify environmental, cultural, and historic elements.	Long-term	PDS, Conservation, NRCS, State Archaeologist
Action 3 – Work with the Iowa Department of Transportation to develop watershed educational standards including roadway signage.	Long-term	PDS, Secondary Roads, I-DOT



<b>INF 5 – Support amenities that enhance livability and quality of life.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Support the Johnson County Conservation Strategic Plan.</b>		
Action 1 – Consider revisions to align zoning ordinance and other County policies.	Short-term	BOS, PDS, Conservation
<b>Strategy 2 – Promote livability initiatives across all Johnson County departments.</b>		
Action 1 – Encourage livability initiatives within all administrative activities across all Johnson County departments.	Ongoing	BOS
<b>Strategy 3 – Support appropriate special events and activities across Johnson County.</b>		
Action 1 – Establish new or promote existing central events calendar.	Ongoing	BOS, IT
Action 2 – Consider grant incentives and programs that support and develop events or activities that benefit the county.	Long-term	BOS
<b>Strategy 4 – Consider improvements to communication infrastructure and access to technology in coordination with economic development goals.</b>		
<b>Strategy 5 – Become a leader in food system infrastructure.</b>		
Action 1 – Develop and adopt a countywide food system plan.	Short-term	BOS, PDS, Food Policy Council
Action 2 – Explore options to utilize existing infrastructure and build new infrastructure that supports the local food system (e.g. food hub, distribution centers, etc.).	Ongoing	BOS, PDS, Food Policy Council, ICAD
<b>Strategy 6 – Support the development of renewable energy in Johnson County, including both private and utility scale solar and wind.</b>		

## CHAPTER 5: LAND USE

<b>LND 1 – Promote and protect sustainable agricultural land uses in rural Johnson County.</b>		
<b>STRATEGY/ACTION STEP</b>	<b>TIMEFRAME</b>	<b>COLLABORATING PARTNERS</b>
<b>Strategy 1 – Advocate for agricultural preservation in all Fringe Area Agreements.</b>		
Action 1 – Pursue adoption of Fringe Area Agreements with cities where no agreement currently exists.	Short-term	PDS, cities
Action 2 – Within the fringe areas, advocate that areas not identified for city growth shall adhere to the county Future Land Use Map.	Mid-term/ Ongoing	PDS, cities
Action 3 – Update all existing Fringe Area Agreements within two years of adoption of the comprehensive plan and review Fringe Area Agreements every three years thereafter.	Mid-term/ Ongoing	PDS, cities



STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 2 – Update Johnson County’s agricultural exemption policy.</b>		
Action 1 – Explore methods to expand agricultural exemption to smaller farming operations.	Short-term	PDS, agricultural/ farmer organizations, environmental groups
Action 2 – Ensure that updated agricultural exemption policies do not become a method for siting CAFOs on small parcels.	Short-term/ Ongoing	PDS
Action 3 – Ensure that updated agricultural exemption policies do not become a method for unplanned residential growth.	Short-term/ Ongoing	PDS
Action 4 – Explore methods for limited residential development for small-scale agriculture.	Short-term	PDS
<b>Strategy 3 – Develop recommendations to alleviate conflicts between agricultural property owners and non-agricultural neighboring properties.</b>		
Action 1 – Revise and distribute information on what to expect when moving to rural Johnson County.	Mid-term	BOS, PDS, Public Health, Secondary Roads
Action 2 – Explore creating “good neighbor” guidance that identifies strategies to avoid conflicts between different land uses.	Mid-term	PDS
<b>Strategy 4 – Encourage and promote the use of on-field and edge-of-field best management practices for top soil and water quality protection.</b>		
Action 1 – Staff will stay informed about resources to aid farmers seeking to implement best management practices.	Ongoing	PDS, FSA, SWCD
<b>Strategy 5 – Discourage concentrated animal feeding operations (CAFOs) in Johnson County.</b>		
Action 1 – Continue to lobby the Iowa State Legislature to allow counties the ability to regulate CAFOs.	Ongoing	BOS
Action 2 – Encourage and promote best management practices for CAFOs.	Ongoing	BOS, agricultural/ farmer organizations, environmental groups
Action 3 – Monitor and report the adverse environmental effects of concentrated animal feeding operations (CAFOs) in Johnson County to appropriate agencies.	Ongoing	BOS, Conservation, NRCS



LND 2 – Direct future residential development based on location and then site-specific criteria outlined in the Future Land Use Development Guidelines.		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Support rezoning applications that comply with the Future Land Use Map and the Future Land Use Development Guidelines.</b>		
Action 1 – Focus residential development in areas that comply with the Future Land Use Map.	Ongoing	BOS, PDS
Action 2 – Review and potentially update the Future Land Use Map every five years after adoption.	Mid-term	BOS, PDS
Action 3 – Develop a procedure for individual property owners to request a change to the Future Land Use Map.	Short-term	PDS
Action 4 – Develop a procedure for combined rezoning, subdivision, and/or development applications.	Short-term	PDS
Action 5 – Allow for flexibility in the zoning ordinance by adoption of planned unit development (PUD) zoning districts and overlay zones.	Short-term	PDS
<b>Strategy 2 – Support rezoning applications on parcels that meet the standards identified by the Future Land Use Development Guidelines.</b>		
Action 1 – Review and update Stormwater Standards at least every five years.	Mid-term	PDS
Action 2 – Review and update Sensitive Areas Ordinance (SAO) at least every five years.	Mid-term	PDS
Action 3 – Review and update the Road Performance Standards to consider factors such as safety, traffic volume, speed, traffic type, and other national standards.	Short-term	PDS, Secondary Roads
Action 4 – Identify environmentally sensitive area criteria to protect natural areas and prevent conflicting land uses.	Mid-term	PDS, Conservation, NRCS
<b>Strategy 3 – Continue use of existing Farmstead Split rule.</b>		
Action 1 – Explore limiting the size and number of agricultural outlots.	Short-term	PDS
Action 2 – Review and revise language as subdivision rules are updated.	Short-term	PDS



**LND 3 – Direct future commercial and industrial development based on location and then site-specific criteria.**

STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Encourage commercial and industrial development within the cities and the Urban Growth Areas.</b>		
Action 1 – Discuss and coordinate development activities as part of Fringe Area Agreement negotiations.	Mid-term/ Ongoing	PDS, cities
Action 2 – Encourage new commercial and industrial development to sites that can be served by municipal water and sanitary sewer.	Ongoing	PDS, cities, ICAD
<b>Strategy 2 – Support appropriate commercial and industrial development that complies with the Future Land Use Map.</b>		
Action 1 – Review and update commercial and industrial land use areas every five years.	Mid-term	PDS
Action 2 – Identify vacant or underutilized parcels zoned commercial and/or industrial within the unincorporated areas of Johnson County.	Short-term	PDS
<b>Strategy 3 – Develop overlay and other commercial and industrial zones to allow more flexibility in rural commercial development.</b>		
Action 1 – Develop criteria for where commercial and industrial overlay zones are appropriate.	Short-term	PDS
Action 2 – Develop criteria for where neighborhood commercial uses are appropriate.	Short-term	PDS
Action 3 – Develop criteria for where agritourism uses are appropriate.	Short-term	PDS
<b>LND 4 – Coordinate land use planning with and between local governments to achieve mutually beneficial development policies.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Work with individual cities to update Fringe Area Agreements.</b>		
Action 1 – Pursue adoption of Fringe Area Agreements for cities where no agreement currently exists.	Short-term	PDS, cities
Action 2 – Advocate for the urban growth area of each Fringe Area Agreement to identify areas that may be developed within the next five or fewer years.	Mid-term	PDS, cities
Action 3 – Ensure that areas outside of the urban growth area comply with the county Comprehensive Plan.	Ongoing	PDS, cities





STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
Action 4 – Pursue Fringe Area Agreements that will allow the Board of Supervisors to comment on city development applications that may impact the unincorporated areas (e.g. roads, safety, stormwater management, etc.).	Mid-term	BOS, PDS, cities
Action 5 – Review and update all existing fringe area agreements in accordance with the fringe area agreement schedule contained in Appendix A of this plan.	Short-term	BOS, PDS, cities
<b>Strategy 2 – Work with cities and school districts to pursue collaborative growth strategies for mutual benefit.</b>		
Action 1 – Serve as a resource for the community, city staff, and other organizations regarding regional planning issues.	Ongoing	BOS, PDS
Action 2 – Pursue regional, multijurisdictional intergovernmental agreements.	Long-term/ Ongoing	BOS, PDS, MPOJC, cities, school districts, ECICOG
<b>Strategy 3 – Advocate for stormwater management and sensitive areas preservation when annexation occurs.</b>		
<b>Strategy 4 – Discourage the creation of “unincorporated islands.”</b>		
<b>LND 5 – Continue to protect and improve Johnson County’s natural resources: land, water, and air.</b>		
STRATEGY/ACTION STEP	TIMEFRAME	COLLABORATING PARTNERS
<b>Strategy 1 – Begin to identify and evaluate all critical and sensitive environmental features in Johnson County.</b>		
Action 1 – Establish criteria to evaluate these areas.	Long-term	PDS, Conservation, NRCS
Action 2 – Coordinate with cities to map sensitive features countywide.	Long-term	PDS, cities, GIS, NRCS
<b>Strategy 2 – Encourage agricultural uses to utilize best management practices and observe conservation practices that prevent erosion and preserve natural resources.</b>		
Action 1 – Ensure staff stay informed of the best management practices and available conservation programs to assist with funding and public education.	Ongoing	BOS, PDS
Action 2 – Promote the use of the Conservation Reserve Program (CRP), the Agricultural Conservation Easement Program (ACEP), or similar programs.	Ongoing	PDS, NRCS
<b>Strategy 3 – Ensure consideration of natural resource and agricultural protection while supporting the development of renewable energy in Johnson County, including both private and utility scale solar and wind.</b>		



[section 6.3]

## IMPLEMENTATION TOOLS

Achieving each goal in a comprehensive plan requires obtaining or developing and using several tools and processes. Johnson County will need to develop or update implementation tools and strategies, recognizing that each has unique strengths and weaknesses. Action steps can be separated into several tool categories and programs, each with its distinct characteristics that make them suitable for specific aims and circumstances.

### SUPPORT PROGRAMS

Two programs will play a vital role in the success of the Comprehensive Plan implementation. These programs are:

#### *Zoning Regulations*

An update to the Johnson County Unified Development Ordinance would support the development goals of the Comprehensive Plan and allow the County to provide a new direction for future growth.

#### *Subdivision Regulations*

Subdivision regulations, a subset of the Johnson County Unified Development Ordinance, establish criteria for environmental impact regulations and the division of land into building areas and public improvements.

## PUBLIC EDUCATION & ENGAGEMENT

In addition to the identified programs, broad public support and involvement are crucial to the successful development and implementation of any broad-based policy or program. Political leadership of Johnson County should foster and use public engagement by making the Comprehensive Plan and development regulations available online. Ongoing education and promotion will be an important factor in sustaining interest and motivation from community members.

### Special Studies & Plans

Additional studies and plans can help create a vision for certain areas or corridors, and ensure that decisions and investments are made in accordance with the Comprehensive Plan. It is also important to update these studies and plans as needed. The following are examples of additional planning efforts that can further develop ideas expressed in the plan:

- Village Plans
- Facilities Space Needs Plan

### Land Use Suitability

One overarching goal of the Comprehensive Plan is to guide development by:

- Describing the relationship between land uses;
- Minimizing land use conflicts between neighboring parcels;
- Establishing criteria or design standards new development must meet; and
- Creating consistent characteristics with each land use district.



[section 6.4]

## PLAN MAINTENANCE

The Comprehensive Plan is the county's collective vision, yet change is inevitable. Major technologies and unforeseen challenges will arise. Jobs, housing, transportation, and goods and services will evolve. The amendment process to the Comprehensive Plan must accommodate and help manage these changes without compromising the county's core values, health and well-being. Amending the plan must also be an open and fair process.

### PLAN AMENDMENTS & FIVE-YEAR REVIEW

If circumstances change and significantly impact plan elements, a plan amendment may be proposed and considered separately from other regularly proposed plan amendments. Such amendments could be proposed by a resident, Board of Supervisors, staff, or other person or group.

With assistance from the Planning, Development and Sustainability Department, the Board of Supervisors or Planning and Zoning Commission may consider proposed amendments to the Future Land Use Map each calendar year. Staff will provide information on each proposal and recommend action. The Supervisors may also elect to hold a special hearing to consider a proposed change more frequently than once a year. The Comprehensive Plan amendment process should adhere to the adoption process specified by Iowa Code and should provide for organized participation and involvement of interested residents and stakeholders.

Approximately every five years, the Comprehensive Plan should undergo a detailed review. Five years is the recommended interval because more frequent updates create a burden on County staff and resources, while less frequent updates risk the relevancy of the plan.

### PERIODIC REVIEW OF PLAN

After adoption of the Comprehensive Plan, staff should monitor any changes that affect plan progress, including trends in the local, regional, state, and federal landscape. Such trends and changes may include changes in development activity and use, trends in development regulation amendments, and changes in planning and zoning law.

The Planning, Development and Sustainability Department will guide this review process with input from the Planning and Zoning Commission and with the Board of Supervisors. Johnson County will review the four major comprehensive plan topics once a year.

Any changes proposed as part of the annual review will be considered through a public hearing process to:

- Provide residents or developers with an opportunity to comment and/or present possible changes to the plan;
- Identify any changes in the status of projects or action items called for in the plan; and
- Bring forth any issues or identify any changes in conditions which may impact the validity of the plan.

If the Board finds major policy issues or major changes in basic assumptions or conditions have arisen that could necessitate revisions to the plan, they should recommend changes or further study of those changes.



## WHAT PROMPTS A PLAN AMENDMENT

Comprehensive Plan amendments may be necessary to maintain plan relevancy. It is impossible to set hard-and-fast rules for when an amendment should be considered, but if the following situations exist, an amendment could be considered:

- A land use request is contrary to the Future Land Use Map or Guidelines.
- Approval of a development request will set a precedent for cumulative changes that are not consistent with the plan.
- A major change in circumstances creates conditions not foreseen by the plan.

To ensure equitable treatment of all property owners and to avoid arbitrary decisions, requests to deviate from plan-specific requirements generally should not be allowed, as these would undermine the legal foundation of the plan.

## EVALUATING REQUESTS FOR MAP AMENDMENTS

Plan interpretation should include a continuous and related series of analyses, with references to the goals and strategies, the Future Land Use Map, and the development guidelines. Moreover, when considering specific proposed developments, plan interpretation should include a thorough review of all sections of the plan.

If a development proposal is not supported by the Comprehensive Plan, the first consideration should be to modify or deny the proposal. Secondarily, and only if certain criteria are met, should a Comprehensive Plan or map amendment be considered to accommodate the proposal. The criteria listed immediately below should be used to determine if a Comprehensive Plan amendment is appropriate. Additionally, to help ensure stability of the Future Land Use Map, proposed amendments will be considered once annually in accordance with procedures set forth by the Board of Supervisors.

- The character of the adjacent parcels.
- The zoning and uses on nearby properties.
- The suitability of the property for the uses allowed under the current zoning designation.
- The type and extent of positive or negative impact that may affect adjacent properties, or the county at large, if the request is approved.
- The impact of the proposal on public infrastructure and facilities.
- The length of time that the subject and adjacent properties have been utilized for their current uses.
- The benefits of the proposal to the public health, safety, and welfare.
- Comparison between the plan and the proposed change regarding the relative conformance to the goals and strategies.
- Consideration of professional staff recommendations.