



# 2045 Long Range Transportation Plan

*RPA 13: Cass, Fremont, Montgomery, and Page Counties*





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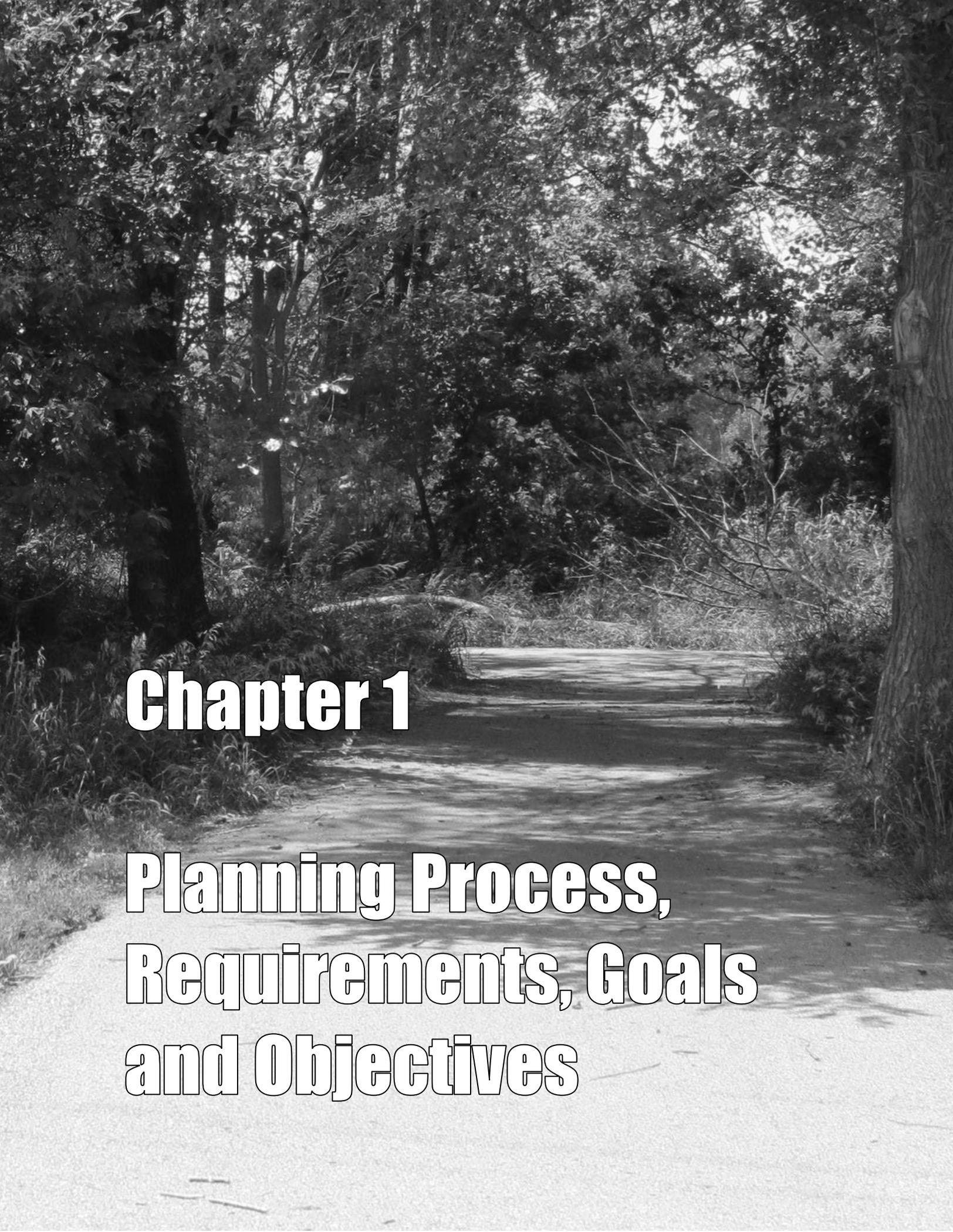
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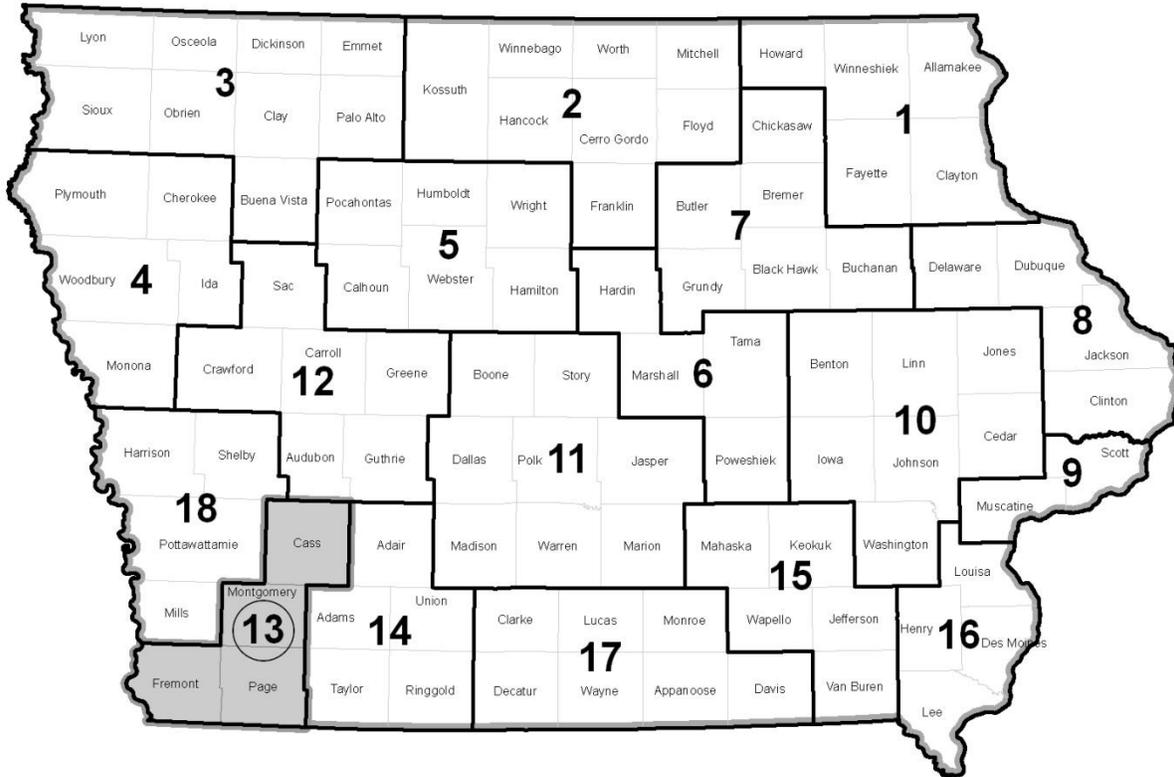




# **Chapter 1**

## **Planning Process, Requirements, Goals and Objectives**

**Figure 1: Map—Iowa RPA Regions**



**Introduction**

Transportation is a vital component to everyday life that often goes unnoticed unless there is a problem. Coming in all shapes and sizes, a proper transportation network allows people and goods to move freely throughout the region and surrounding areas. Modes of transportation have evolved over time as technologies, needs and preferences among residents changed. From horse and buggy to the first automobile to multilane highways and interstates, transportation is always changing and requires a vast amount of planning to insure the safety of all users.

RPA-13’s 2045 Long Range Transportation Plan (LRTP) is an update to the 2035 plan adopted in 2015. The purpose of a LRTP is to allow regional stakeholders to review current conditions, trends, strengths, weaknesses, opportunities and threats of the transportation network in the region while planning for improvements and future needs through 2045.

**Regional Planning Affiliations**

Regional Planning Affiliation (RPA) 13 was organized to carry out transportation planning for a four county region in Southwest Iowa. RPA 13 is one of eighteen nonmetropolitan planning areas in the state of Iowa and includes the counties of Cass, Fremont, Montgomery and Page. Within RPA 13 are 4 urban cities which include Atlantic in Cass County, Clarinda and Shenandoah in Page County and Red Oak in

Montgomery County. Southwest Iowa Planning Council (SWIPCO) serves as the regional transportation planning agency for the region designated by the Iowa Department of Transportation. Planning documents completed by RPAs include:

- Transportation Improvement Plans (TIP)
  - Due annually
  - The Transportation Improvement Program is a four year planning document that identifies planned transportation improvements within local regions that are expected to utilize federal-aid funds. This document serves as a list of federal-aid eligible surface transportation improvements within the respective RPA.
- Passenger Transportation Plans (PTP)
  - Due every 5 years
  - Passenger Transportation Plans are designed to promote joint, coordinated passenger transportation planning programs that further the development of the local and regional public transportation systems.
- Long-Range Transportation Plans (LRTP)
  - Due every 5 years
  - The Long Range Transportation Plan is a federally required document that discusses the existing status and future needs of an area's transportation system.
- Transportation Planning Work Program (TPWP)
  - Due annually
  - The Transportation Planning Work Program is a document which defines the budget and local, state and federal transportation activities the RPA will work on annually.
- Public Participation Plan (PPP)
  - Updated as needed, preferably at least every 5 years
  - The Public Participation Plan details the process the RPA will follow in regards to public involvement for transportation planning.

RPA 13 is governed by a Policy Board and Technical Committee. The Policy Board consists of a supervisor from each of the 4 counties and a representative from each of the 4 urban cities. The Policy Board meets quarterly and has final input on the RPA's planning activities including the LRTP. The Technical Committee consists of the 4 county engineers and a representative of each of the 4 urban cities. The Technical Committee meets once a year and makes recommendations to the Policy Board.

Beyond the RPA Policy Board and Technical Committee, RPA 13 sought input from transportation groups including trail groups, economic developers, airport managers, railroad companies, etc. RPA 13 also sought input from the public through the process described in the regions Public Participation Plan (PPP) which included a survey available on the internet from August 2019 until November 2019. Through this effort, RPA 13 strived to develop a comprehensive, all-encompassing Long Range Transportation Development Plan.

## **Federal and State Requirements**

Transportation planning has been a big part of our nation but until the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, planning for rural areas was conducted at a state level. Building off of ISTEA, in 1993 the Iowa Transportation Commission created the RPAs to localize transportation

planning for rural areas. The passage of more transportation bills followed with the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) in 1998, Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005, Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) in 2012 and the current Fixing America's Surface Transportation Act (FAST) in 2015.

### *FAST Act*

The FAST Act was signed into law on December 4, 2015. This federal law provided long-term funding certainty for transportation planning, investment and infrastructure for the first time in over a decade. Five months after the FAST Act was signed into law, on May 27, 2016, the Federal Highway Administration (FHWA) issued a rule updating the regulations governing the planning process for MPOs and States. This rule is known as Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning which requires there be a planning process that provides consideration and implementation of projects, strategies and services that will:

1. Support the economic vitality of the United States, the States, nonmetropolitan areas and metropolitan areas, especially by enabling global competitiveness, productivity and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase the accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between mode throughout the State, for people and freight;
7. Promote efficient system management and operation;
8. Emphasize the preservation of the existing transportation system;
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10. Enhance travel and tourism.

### **Public Engagement Process**

The public engagement process laid out in RPA-13's Public Participation Plan (PPP) was followed for this plan update. Public meetings were held quarterly in Red Oak to discuss all transportation activities including updates made to the LRTP.

Meetings were scheduled with each mode of transportation; rail, aviation, non-motorized, highway and transit. Local representatives for each modal group were invited to their respective meeting to discuss their transportation mode within the region. Topics covered included needs and issues, strengths, weaknesses, opportunities and threats, goals, funding and alternatives to meetings their goals.

SWIPCO developed a survey that was advertised throughout the region by SWIPCO, Cities and county and city economic development corporations and available for all residents to take. This survey explored various aspects of the region's transportation system along with question regarding economic development. The survey was available for public response from August to November 2019. Full results from the survey can be found in the appendix.

Once the draft LRTP was developed, a meeting and public hearing was scheduled for December 17, 2019 at the Southwest Iowa Planning Council office in Atlantic. Notice for this meeting was published in the local newspapers, posted on the SWIPCO website and on SWIPCO social media sites. Preceding the public hearing, a 45 day comment period was observed for collecting comments. All comments were taken into account before the final plan was adopted.

## Goals and Objectives

To identify goals for the region, input was gathered from public input, the Long Range Transportation Plan survey, input from modal group meetings and other regional plans. These goals will be used as a guide for transportation planning and project selection throughout the region.

1. Maximize Accessibility and Mobility for people and businesses by providing for the needs of the communities and the region.
  - a. Expand services where needed without jeopardizing existing services.
  - b. Consider projects that would benefit alternative transportation methods.
2. Support the economic vitality of the region, state and nation by continually enhancing and integrating transportation systems across and between modes throughout the region and state for people and businesses.
  - a. Enhance or create transportation modes where development opportunities are present.
3. Increase Safety and Security of the transportation system by emphasizing safety improvements in all modes of transportation.
  - a. Determine best areas of improvement.
  - b. Maintain and preserve existing transportation modes will have a higher priority before considering new projects.
4. Consider the environment in the activities within the region by protecting and enhancing the environment, promoting energy conservation and improving the quality of life.
  - a. Consider environmentally friendly alternatives to projects
  - b. Minimize and reduce impacts of activities to the environment
5. Keep costs reasonable and sustainable by promoting efficiency within transportation planning and emphasizing the preservation of the existing transportation system.
  - a. When rehabilitating or reconstructing the transportation system, determine areas where resources will provide the most benefit to safety, mobility and usage while considering the costs.
  - b. Consider funding sources and keep projects reasonable to resources available.



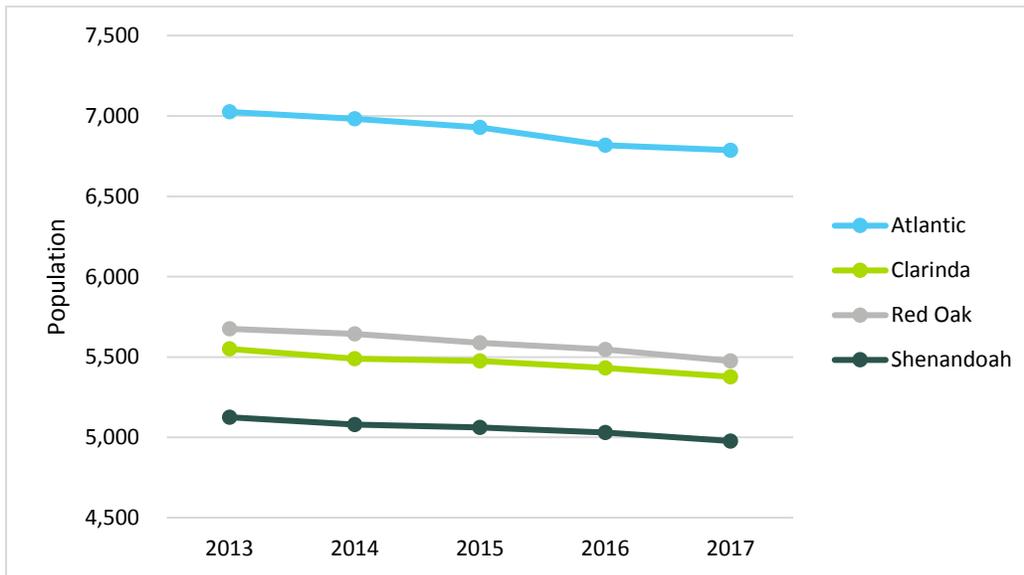
# Chapter 2

# Regional Backgrounds and Trends

## Demographics

RPA-13 region is an area comprised of four counties that include Cass County, Fremont County, Montgomery County, and Page County and is located in the Southwestern corner of the state of Iowa. The region consists of thirty-four incorporated communities. The four largest cities or economic centers located within the region include Atlantic, Clarinda, Red Oak, and Shenandoah three of which have a population over the 5,000 minimum to be considered an urban area. According to the American Community Survey Estimates for 2017, Shenandoah fell to a population of 4,977. With the 2020 Census approaching soon, it is expected that the Shenandoah population will be found to be above 5,000.

**Figure 2: Chart – Urban City Population over the Past Five Years (2013-2017)**

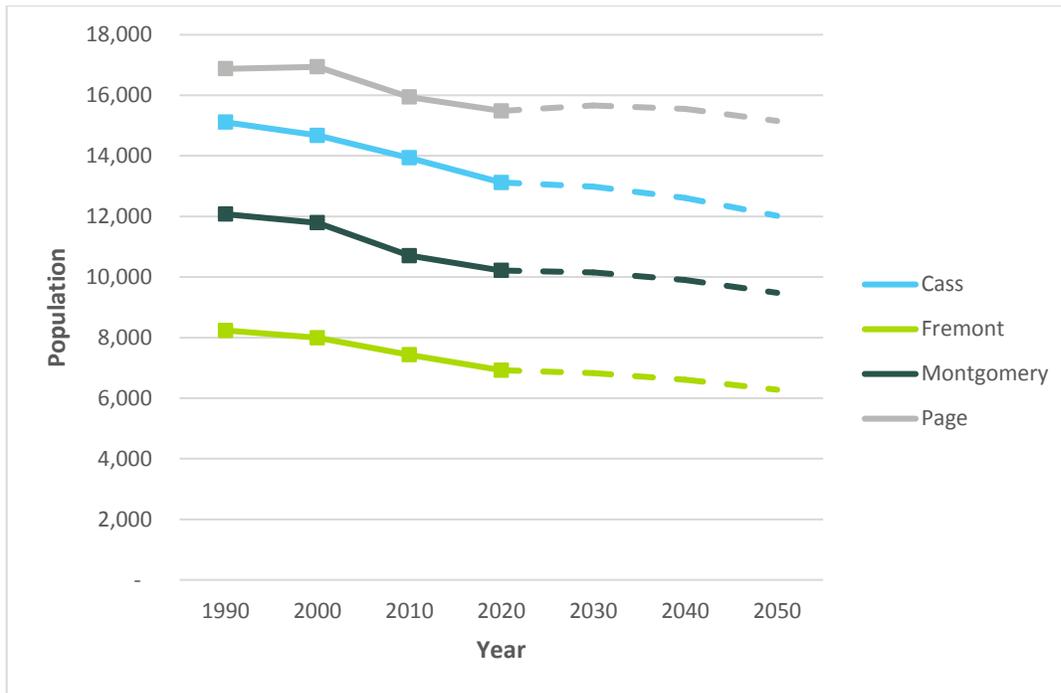


**Source:** US Census Bureau: Community Survey Estimates

### *Population*

According to the 2017 American Community Survey, the region's population is 45,944 and is primarily an Anglo-American rural-based population. The region is home to a primarily Caucasian race with each county having between 94-98% of its total population being of only the Caucasian race, more than the State percent of 90.6%. RPA-13 is the second smallest planning affiliation in the state with regards to population; Page County has the largest population of the four counties with 15,393 residents and Fremont is the smallest with 6,985. The population in the RPA has declined steadily in each of the four counties over the past few decades and has not seen an increase since the 1980 census, with the exclusion of Page County which saw a slight increase in the 1980 Census. The overall trend in each county, and the region as a whole, has been a steady population decline.

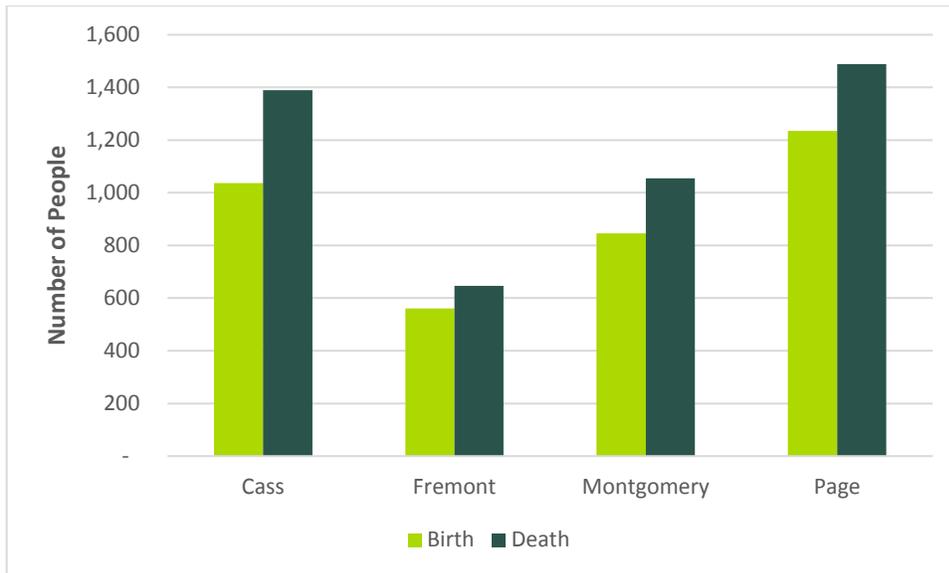
**Figure 3: Chart – County Population and Projections for 1990-2050**



**Source:** Woods and Poole

The overall net population has been in decline due to the migration out of the rural areas. This could be due the consolidation of smaller farms into larger farming operations as well as more opportunities in larger urban areas outside of the region. The younger population is then moving out of the RPA and leaving behind an older population to take care of the communities. With a smaller population of young adults, the rate of birth has not been able to replenish the aging population as seen in figure 4 and therefore is contributing to decline in total population. This decline will have an impact on the region as they try and provide services to an older population and maintain their existing communities while having a smaller workforce to provide such services.

**Figure 4: Chart – Births and Deaths by County from 2010 to 2017**

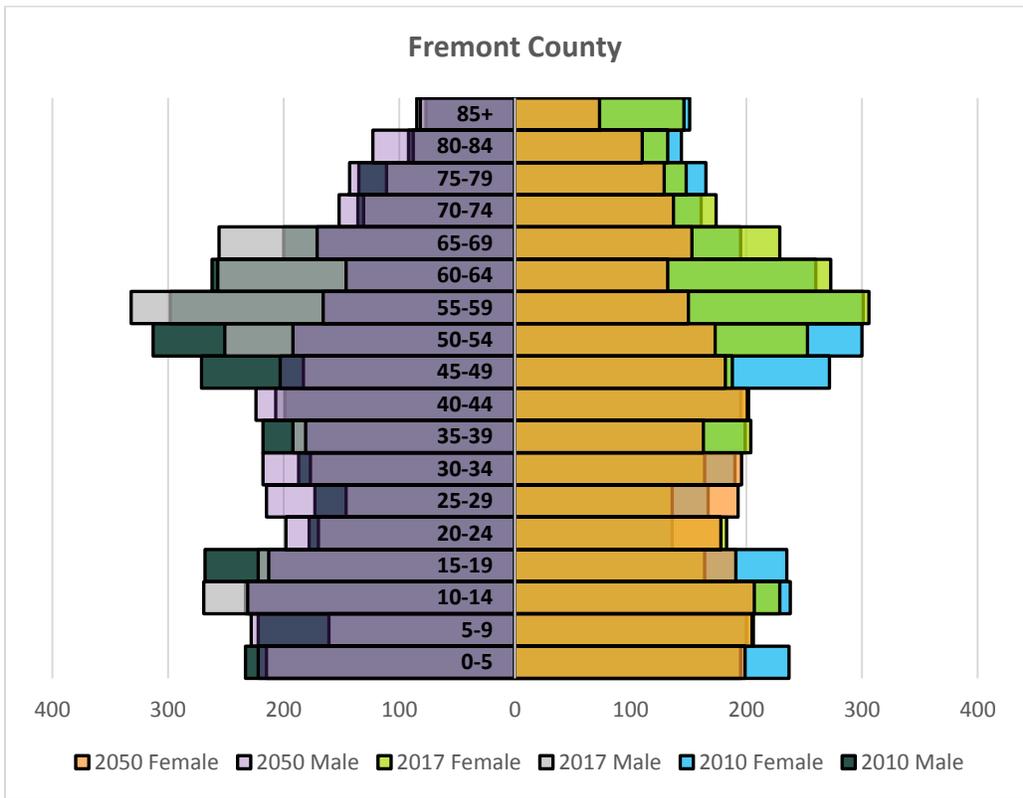
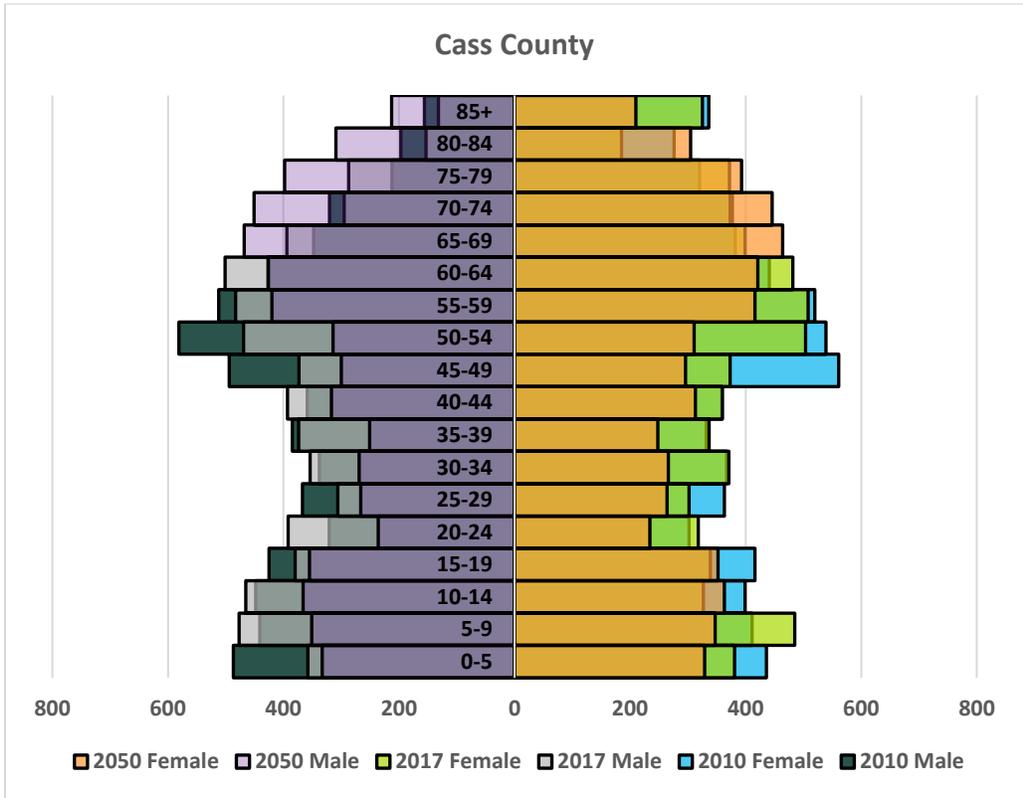


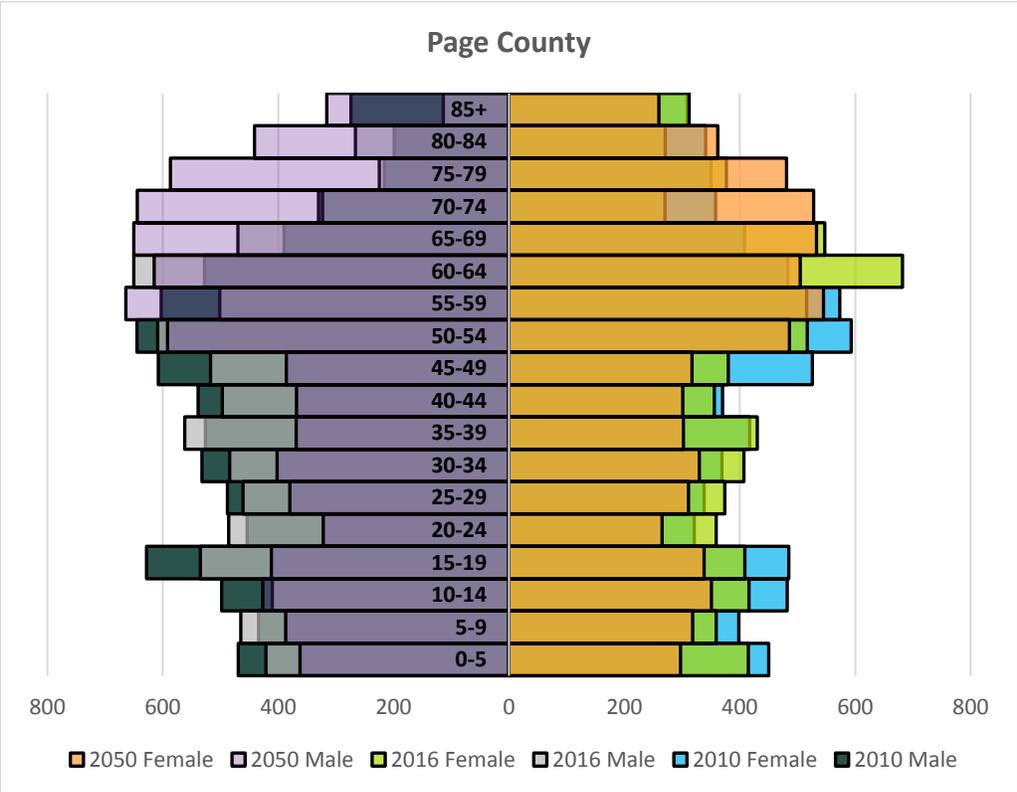
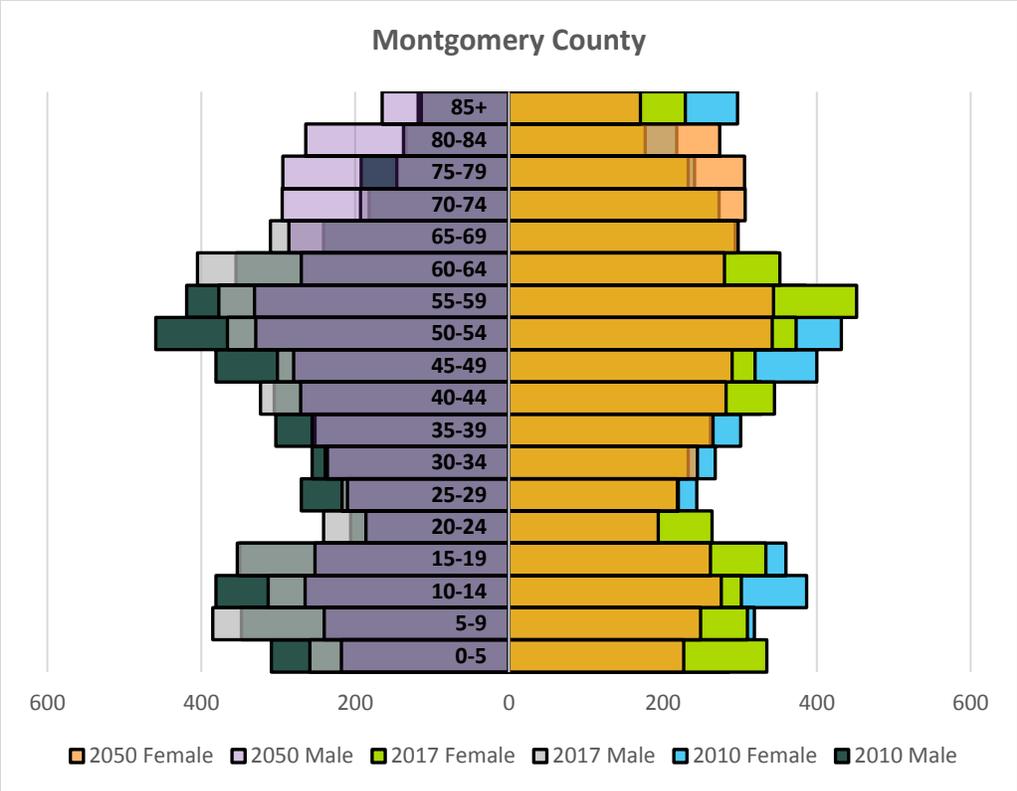
**Source:** US Census Bureau: Community Survey Estimates

The demographics by age for the region also show that the baby boom generation is moving into retirement age. Each county has a median age that is at least six years older than that of the State of Iowa which shows that the region has a slightly older population compared to the rest of the state. The aging population in the RPA could result in a need for more infrastructure to accommodate this age group. Roadway infrastructure will have to be designed to accommodate an older population, such as bigger and brighter signage along roadways while funding for trails may have to focus on short local trails rather than regional long distance trails. Public transit may see an increase in demand thus, the need for more funding to accommodate the increase in services.

In addition to the aging population, the population pyramids below also show large clusters of younger residents age 0-19 which are predicted to grow in the next 30 years. Those who aren't old enough for a driver's license may need to rely on public transit for getting to school or daycare especially if parents are unable to transport them. With the prediction of this age group to grow along with the aging population, an expansion of public transit may be needed to meet the demand for those who can't or don't wish to drive themselves.

Figure 5 A-D: Chart – Age Demographics by County (2010-2050)





Source: US Census Bureau, Woods and Poole

## Migration

On top of the birth and death ratio, the region as a whole has also been experiencing an outward migration. The negative net migration of the population that the area has experienced is possibly due to the opportunities and accessibility available outside of the region. When looking at individual county migration however, Cass and Montgomery counties are showing a positive net migration. This could be partially because of new job opportunities in the area such as the ethanol plant in Atlantic. The region is in close proximity to the large economic metropolitan areas of Council Bluffs and Omaha to the west and Des Moines to the east. Each of these metropolitan areas provide a large number of opportunities to those living within the RPA region with greater accessibility. This close proximity opens up the possibility of residents living in the RPA region and commuting to the metropolitan areas for work because of lower living costs.

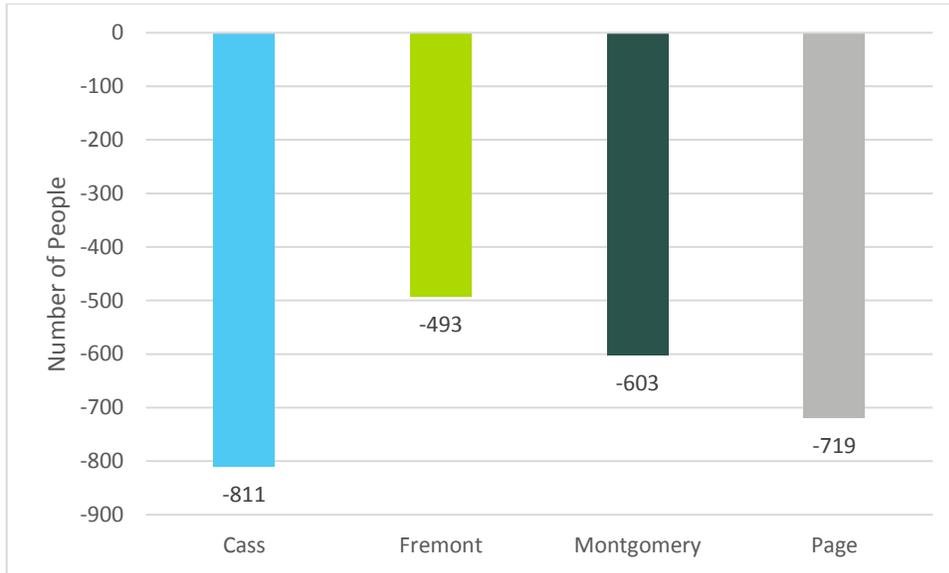
**Figure 6: Chart – Net Migration by County from 2010 to 2017**



**Source:** US Census Bureau: Community Survey Estimates

With the current population trends, it is probable the region will continue to see a decline in population. Altogether, the total population change from 2010 to 2017 has been between roughly 500 to over 800 people in each county with Cass seeing 811 people leaving the county in the seven year time period. With a continued trend of a shrinking population, the region could see fewer dollars for transportation projects and infrastructure upkeep. Budget constraints could mean decisions between equally important projects would need to be made with possible basis on which would benefit the most people leaving the less populated areas with poorer infrastructure. As a region, decisions will have to be made on how to provide transportation services and maintain the infrastructure for the residents that remain.

**Figure 7: Chart – Total Population Change by County from 2010 to 2017**



**Source:** US Census Bureau: Community Survey Estimates

*Race and Ethnicity*

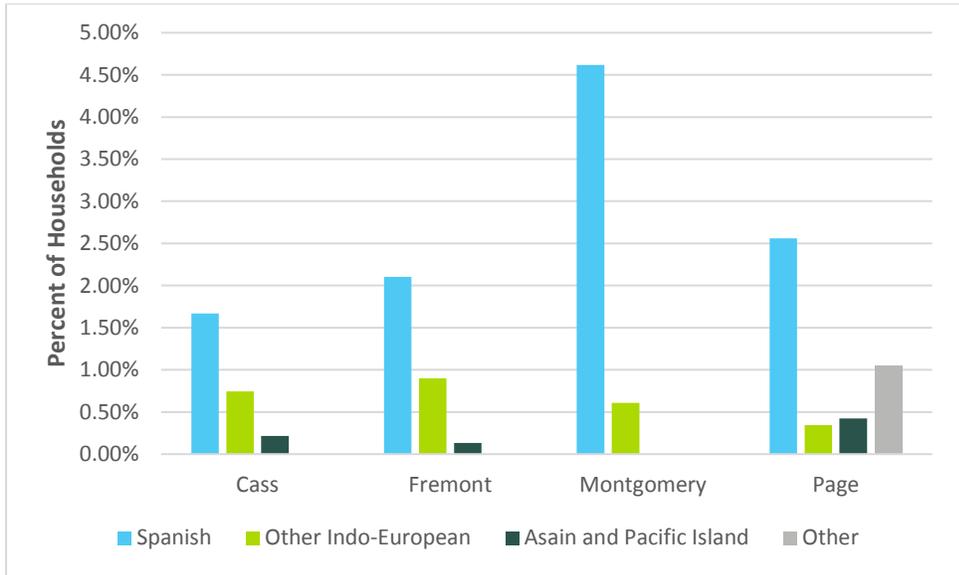
Similar to the State of Iowa, the region is primarily English speaking, non-Hispanic or Latino Caucasians. The percentage of Spanish speaking households range from around 1.6% to 4.6% with Montgomery County having the highest percentage and Cass County having the lowest. Page County is the only county in the region with a population of “other” language speaking households which outnumber Other Indo-European and Asian Pacific Island languages. Even though the percentages of minorities and limited English speaking households in the region are low, it is still a barrier that needs to be addressed in the transportation system.

**Figure 8: Table – Race Percentages for the Region (2013-2017)**

Race	Not Hispanic or Latino	Hispanic or Latino
White alone	93.93%	1.65%
Black or African American alone	0.83%	0.05%
American Indian and Alaska Native alone	0.49%	0.11%
Asian alone	0.52%	0.01%
Native Hawaiian and Other Pacific Islander alone	0.05%	0.02%
Some other race alone	0%	0.89%
Two or more races	1.21%	0.13%

**Source:** US Census Bureau: Community Survey Estimates

**Figure 9: Graph – Non-English Speaking Households (2013-2017)**



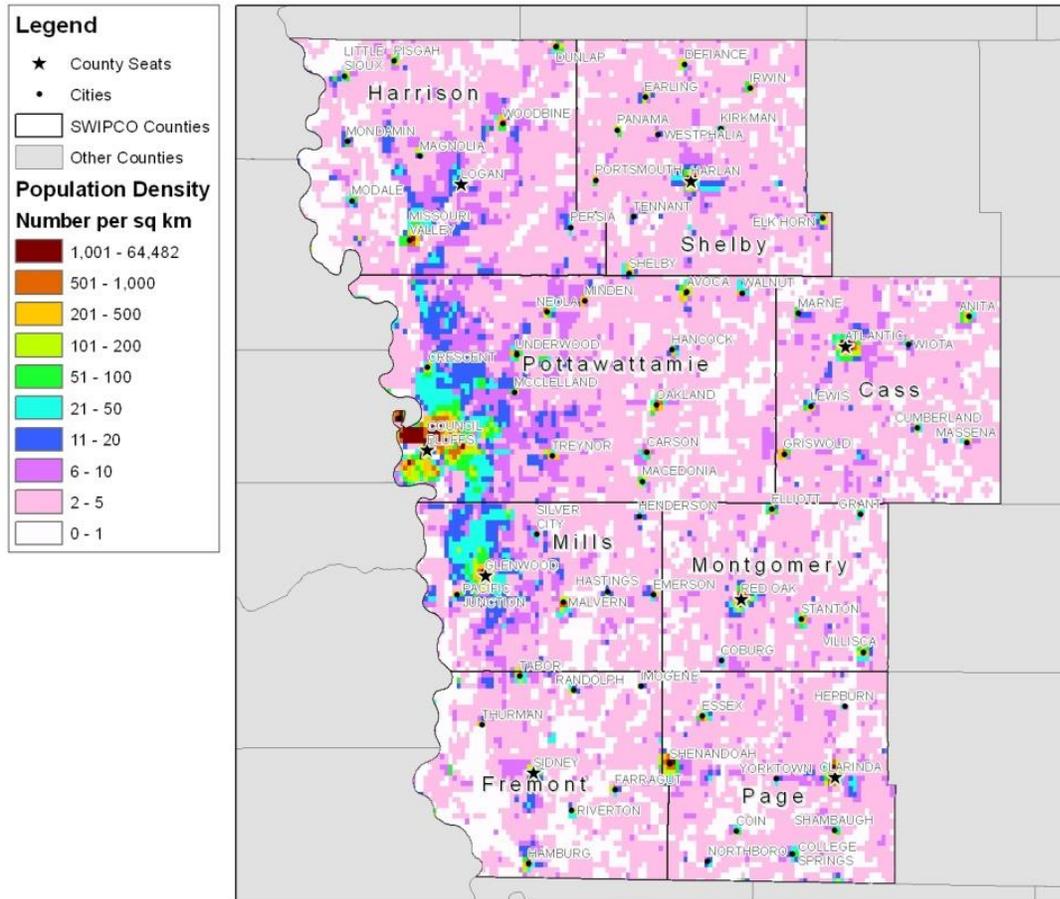
**Source:** US Census Bureau: Community Survey Estimates

## Land Use

### *Density*

The population density of the region shows that RPA 13 is primarily rural. Page County has the largest population density of the four with 29.8 persons per square mile and Fremont County having the lowest with 14.6 persons per square mile. Cass County and Montgomery County are close in density with 24.7 and 25.3 persons per square mile respectively. By contrast, Pottawattamie County, which includes the Council Bluffs metropolitan area, has three to four times the density of any county located in RPA 13 and Polk County, including the Des Moines metropolitan area, having a density that is almost 30 times that of each county in the RPA. With the economic centers of Council Bluffs and Omaha to the west and Des Moines to the east handling most of the regional business at the national level, regional development within Southwest Iowa will primarily be focused around the rural and agricultural needs with the urban centers of each county providing resources to the agricultural communities.

**Figure 10: Map – Southwest Iowa Population Density per Square Kilometer (2010)**

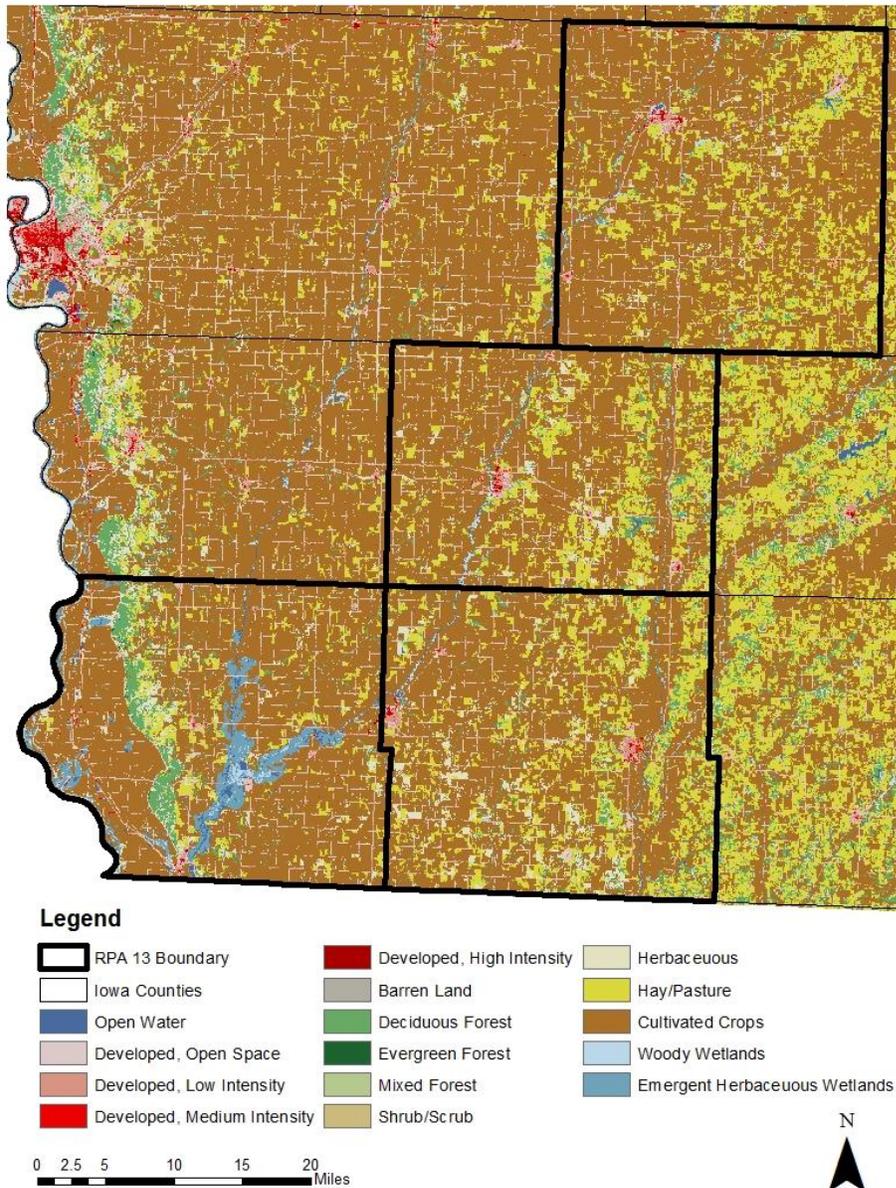


Sources: National Weather Service; United States Census Bureau

*Type of Land Use*

RPA 13 is primarily rural in nature with much of the area being used for agriculture. In each of the four counties, cultivated crops and hay/pasture make up the majority of the land use with the rest being a mix of uses such as residential, forest and water. As can be seen by figure 10, the land uses are dispersed evenly in each of the four counties in the region with exception of the urban areas concentrated in various locations throughout the region.

**Figure 11: Map – Land Use RPA 13 (2017)**



**Source:** United States Department of Agriculture

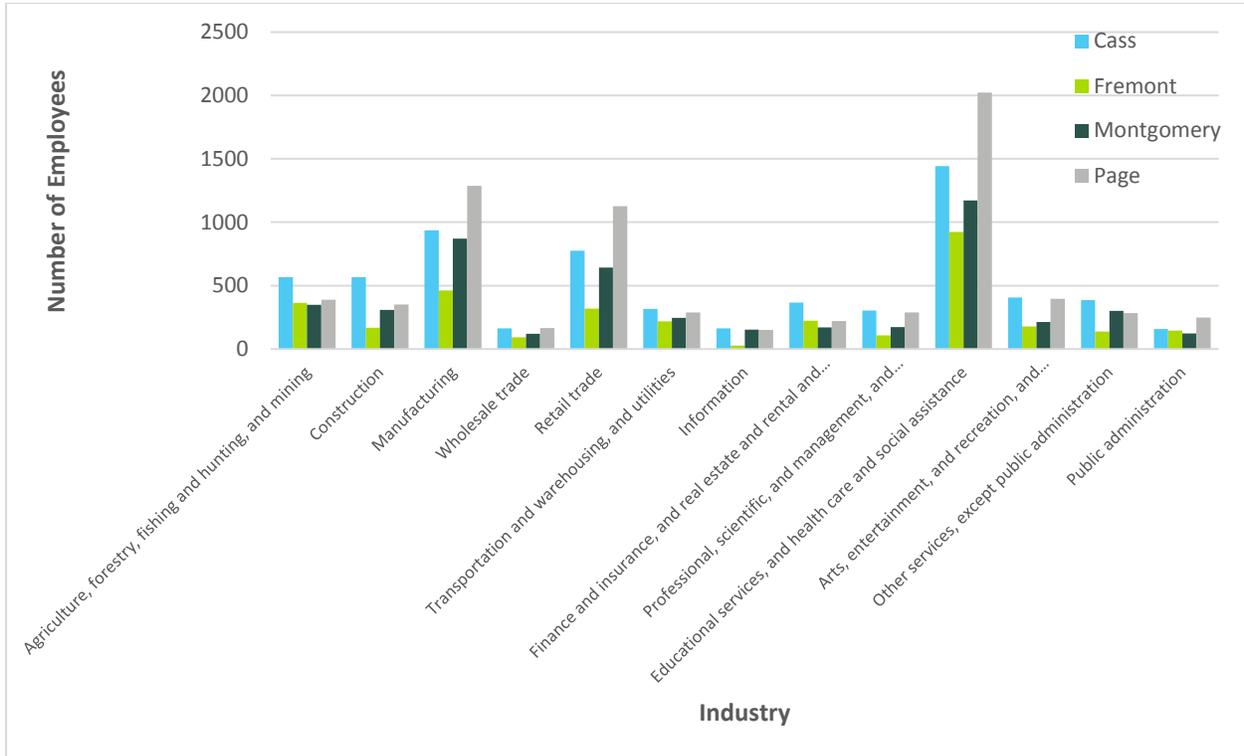
The four communities qualifying as urban areas in the 2010 U.S. Census data are Atlantic, Clarinda, Red Oak, and Shenandoah. All four of the communities consist of a diverse land use schematic, which includes industrial, commercial, public use, single-family residential, multi-family residential, agricultural, and open space components. The wide range of land uses commonly found in these areas tends to promote these communities as regional economic centers. Many of the non-urban communities focus largely on residential land uses, with small areas of commercial and/or public land uses in the downtown/Main Street areas. However, the majority of the communities in the region will continue to vie for economic opportunity and will take the steps necessary to attract for such growth.

## Economic Conditions

### Employment

Each county has a fairly diverse workforce population that largely supports the rural agriculture industry of the region. The educational service and health care and social assistance industry had the largest number of employers in each county. Cass and Page counties show higher workforce numbers in the manufacturing and retail trade industries when compared to Fremont and Montgomery counties.

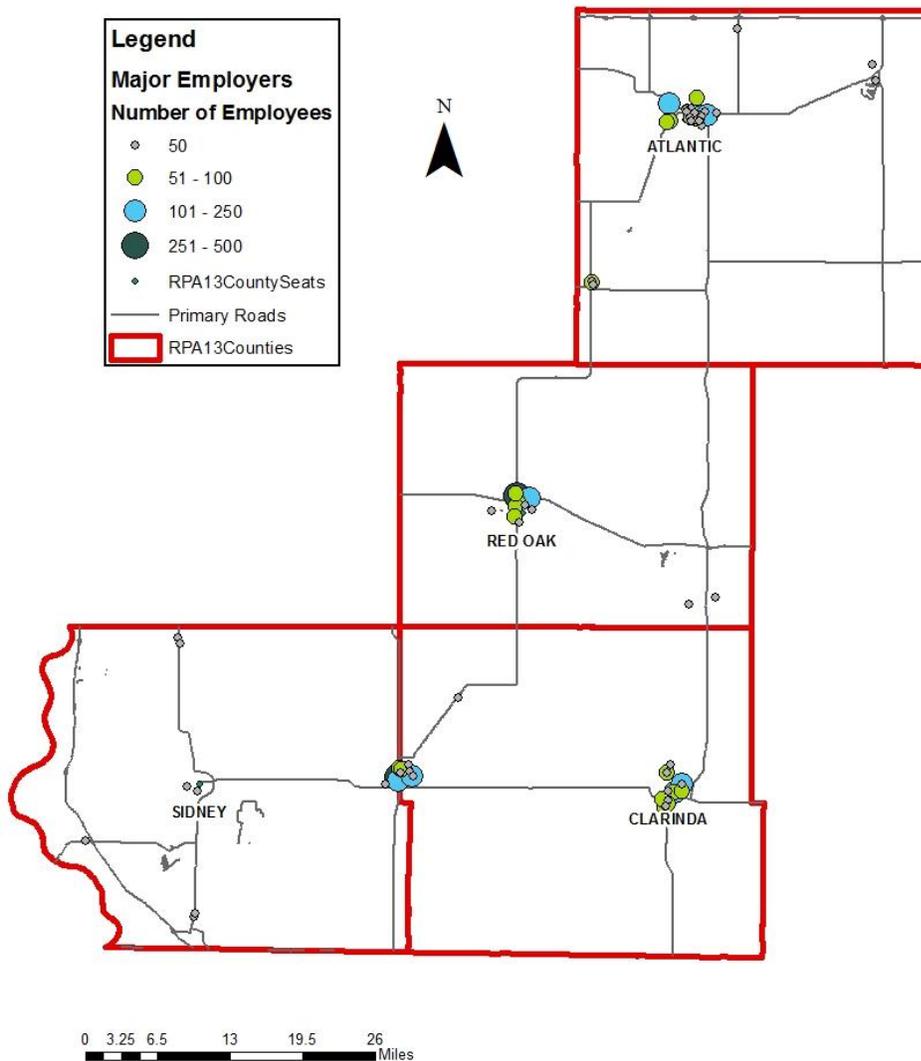
**Figure 12: Chart – Employment by Industry (2013-2017 ACS)**



**Source:** US Census Bureau: Community Survey Estimates

Employment in the region is primarily located in the urban cities of Atlantic, Clarinda, Red Oak, and Shenandoah with all firms employing over 250 employees located within these four cities. Furthermore, all employers with over 100 employees are located within these four cities excluding one that is located in Griswold. Within RPA-13 there are two employers that employ over 500 employees; American Hydraulics in Red Oak and Eaton Corp in Shenandoah. There are eight employers that employ between 250 and 499 employees; three in Atlantic, two in Clarinda, one in Red Oak and two in Shenandoah. These employment hubs are mainly manufacturing, retail or medical in nature and rely heavily on the transportation network for day to day activities.

**Figure 13: Map – Major Employers in RPA-13 with 50 or more Employees (2019)**

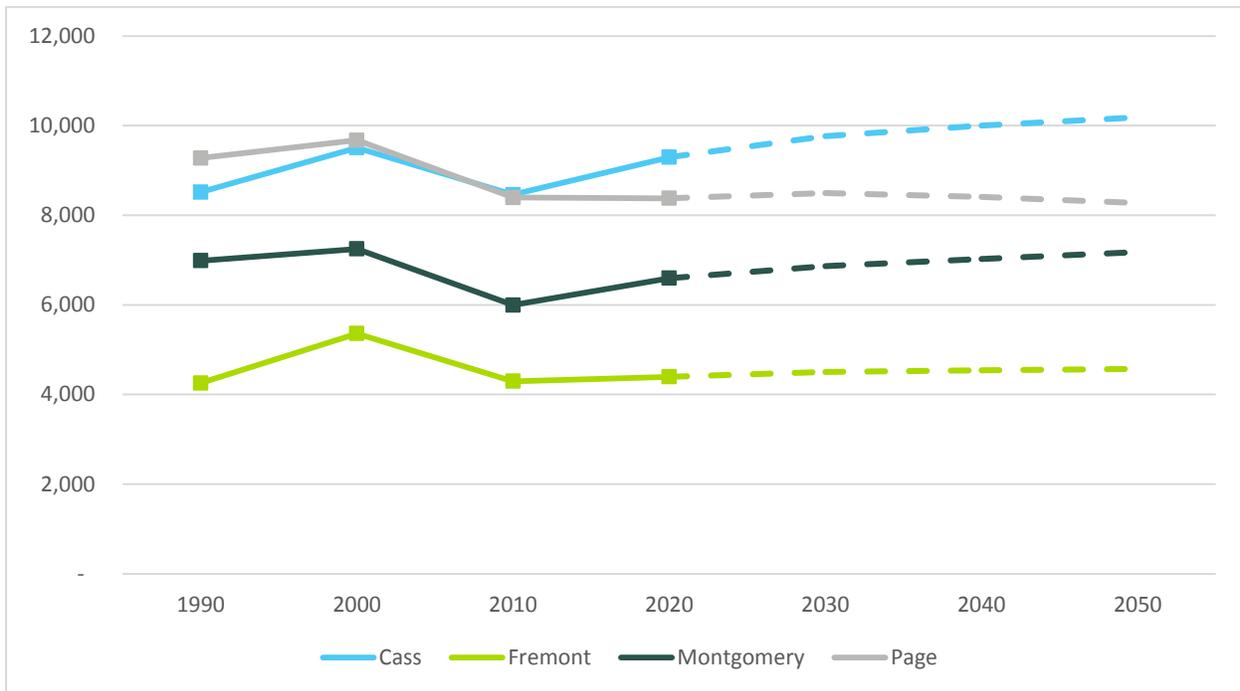


**Sources:** Iowa Department of Transportation; Iowa Workforce Development

The number of paid employees has held relatively constant for the region with Page and Montgomery counties seeing an increase and Cass and Fremont seeing a slight decrease in the past year. Increases in Montgomery and Page counties can be attributed to increased employees at several large manufacturing companies such as American Hydraulics, Parker Fluid Connections and H&H Trailer Co. While the increases in employment in these counties were attributed to manufacturing businesses, the same is true for the decrease in Cass County. Plastic professionals in Atlantic laid off around 150 employees and around the same time, a new ethanol plant opened creating approximately 50 new jobs. In Fremont County, the decrease is largely due to the loss of two schools, one in Hamburg and one in Farragut, and a daycare.

As employment numbers for manufacturing businesses increase or decrease, the desire for work routes provided by public transit may change. Employers may find it beneficial to establish routes with transit services to transport workers to their location to increase attendance numbers. On the other hand, when businesses lay off employees, those people may need to start commuting farther away from their home if they are already established in a community. This could put an increased strain on already deteriorating roadways.

**Figure 14: Chart – Current Employment and Projections**

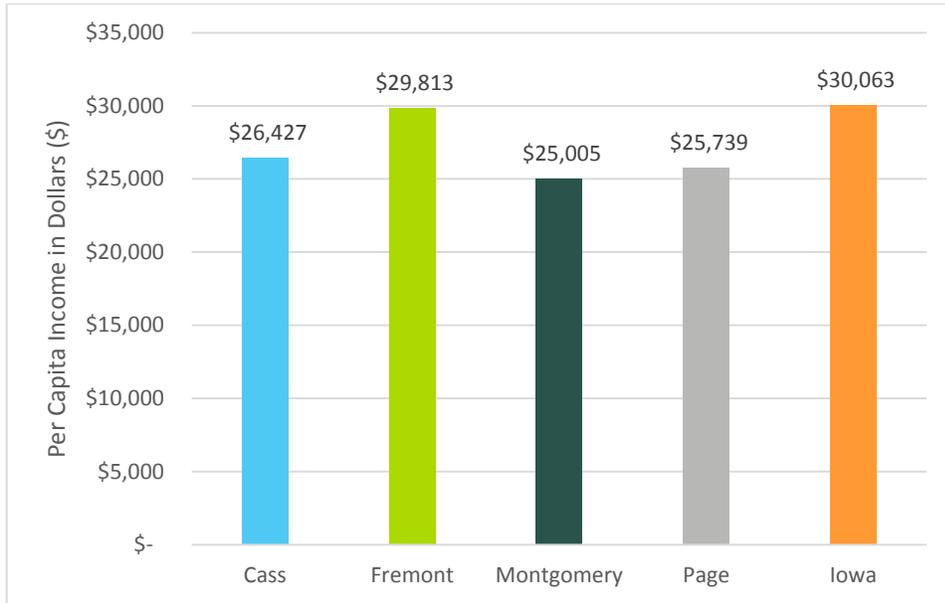


**Source:** Woods and Poole

### *Income*

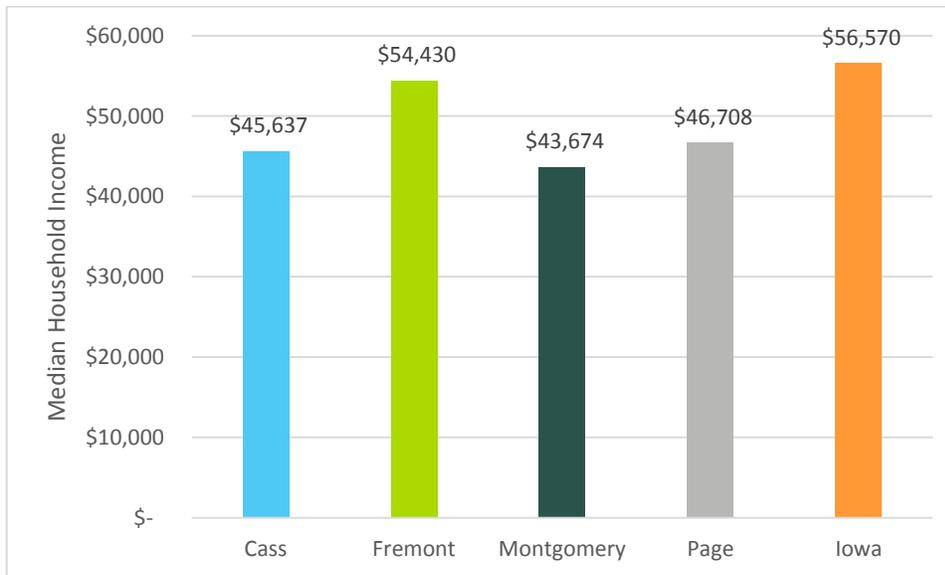
Incomes of those residing in the region were slightly lower than those in the state of Iowa. In both per capita income estimates as well as median household incomes counties in the RPA scored lower than the state of Iowa. Fremont County had the highest per capita income estimates as well as the highest median household income estimate of all four counties while Montgomery County scored lowest in both categories. Each county has seen an increase in median household income from the 2000 census and each county has also seen an increase in per capita incomes.

**Figure 15: Chart – Per Capita Income Estimates (2013-2017 Community Survey Estimates)**



**Source:** US Census Bureau: Community Survey Estimates

**Figure 16: Chart – Median Household Income Estimates (2013-2017 Community Survey Estimates)**



**Source:** US Census Bureau: Community Survey Estimates

The demographics and economic conditions together indicate a region that is slowly declining in investment and is finding it harder to attract and retain its existing population. The ability to attract workers and retain the existing residents is a concern for the region as it will make it hard to fill jobs that are opened up by those retiring or created by new investment or businesses. The declining tax base can squeeze current community budgets and limit funding available to maintain its services and infrastructure.

All of these issues will impact planning on future development on the transportation systems and networks in the region by limiting either funding opportunities for projects or support for services.

## Summary

The small number of businesses in the RPA and the layoff of employees or closing of schools highlight the vulnerability in regards to employment and opportunities in the region and the impact that a business in the RPA would have if it were to close. While large cities with diverse industries can absorb workers from a few businesses that decide to relocate or close; in many rural communities, like those located in the RPA, a business that relocates or closes can have a tremendous economic impact on the community. Often, when a small community loses a major employer, unemployment rises and many seek employment elsewhere outside of their community, resulting in a smaller tax base leading to less funding within the community. Surrounding communities can soften the impact of job losses in many cases.

On the other hand, when businesses within the RPA expand and demand more employees or when new businesses open, this has a huge effect on the area due to the small population and relatively low unemployment rate seen around the state. The demand for additional employees can often times lead to people moving to the region for employment opportunities. This increase in population leads to a larger tax base which increases the funding within the community. Manufacturing businesses increasing their employee numbers may find it beneficial to pursue the option of establishing work routes with local transit agencies to insure their employees have dependable transportation to work every day. This not only benefits the employer, but reduces the traffic on local roads that may have limited funding for repairs.

Both increases and decreases in employed numbers within small communities and rural regions impact local budgets for projects and services due to varying tax bases. A loss in employees influences local planning and decision-making and affects transportation planning and projects by limiting budgeting. Communities may have to rely more on State and Federal assistance to maintain their current transportation infrastructure. Often times, the heavy financial burden of maintaining transportation infrastructure coupled with a declining tax bases leaves communities no choice but to neglect certain areas of their transportation network which can create safety concerns as well as lead to a lower desirability of their community. However, an increases in employees may have the opposite effect. For the most part, the number of employees within the region as a total has remained fairly consistent over the years.

A black and white photograph of a road construction site. In the foreground, a large road roller is positioned on a newly laid asphalt surface. To the left, a truck is parked, and a worker in a white shirt and hat is visible. Two American flags are flying on poles. The background shows a clear sky and some distant trees.

## Chapter 3

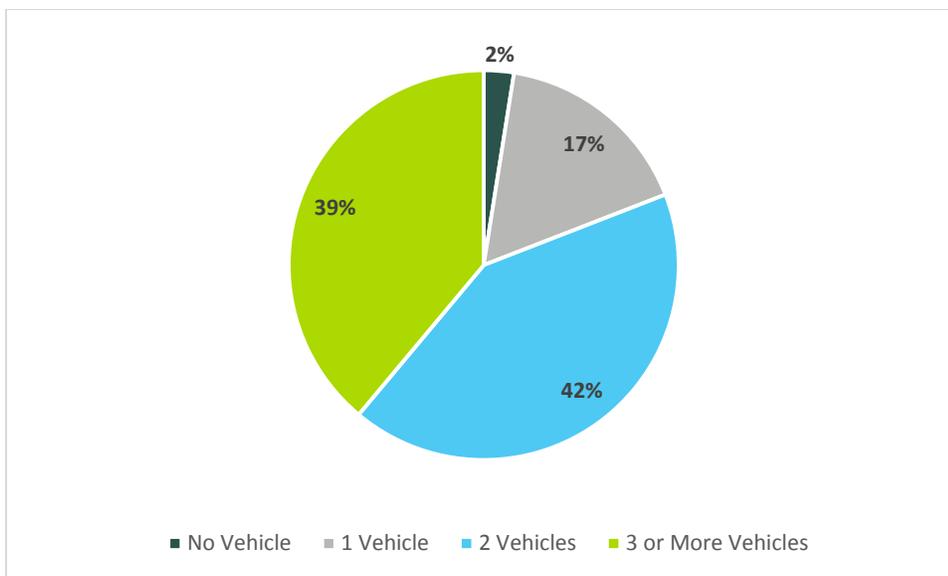
# Existing Regional Transportation System

## Commuting Patterns

### Vehicle Use

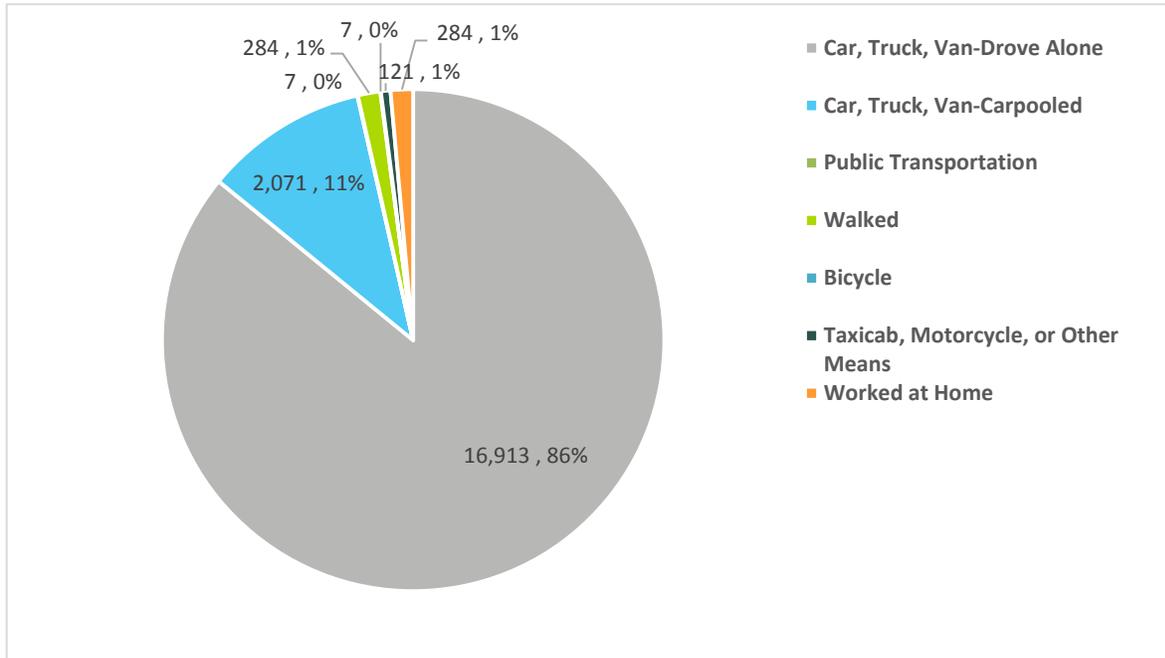
With a largely rural region and the infrastructure for transportation supporting it, the most commonly used means of transportation is done by personal vehicle. According to the 2013-2017 American Community Survey by the Census Bureau; of the total workforce in RPA-13, 98% have access to one or more vehicles. This accessibility to transportation makes it one of the most commonly used means of transportation with 97% of the workforce choosing to either drive alone or carpool. This means that the highway and road infrastructure is highly critical for the activities and economy in the region. The average commute time to work is between 13.9 and 24.5 minutes in each county, which is not far off from the state of Iowa commute time.

**Figure 17: Chart—RPA-13 Vehicles Available per Household (2013-2017 ACS)**



**Source:** US Census Bureau: Community Survey Estimates

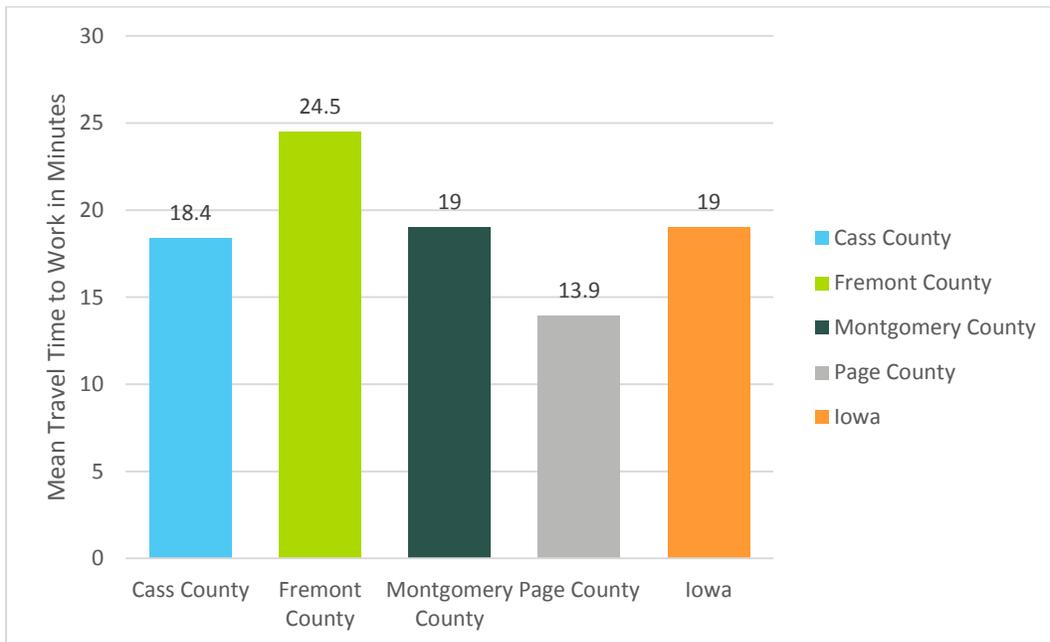
**Figure 18: Chart – RPA-13 Commuting Trends of 16 year and older workforce by Vehicle Type (2013-2017 ACS)**



**Source:** US Census Bureau: Community Survey Estimates

*Commuting Characteristics*

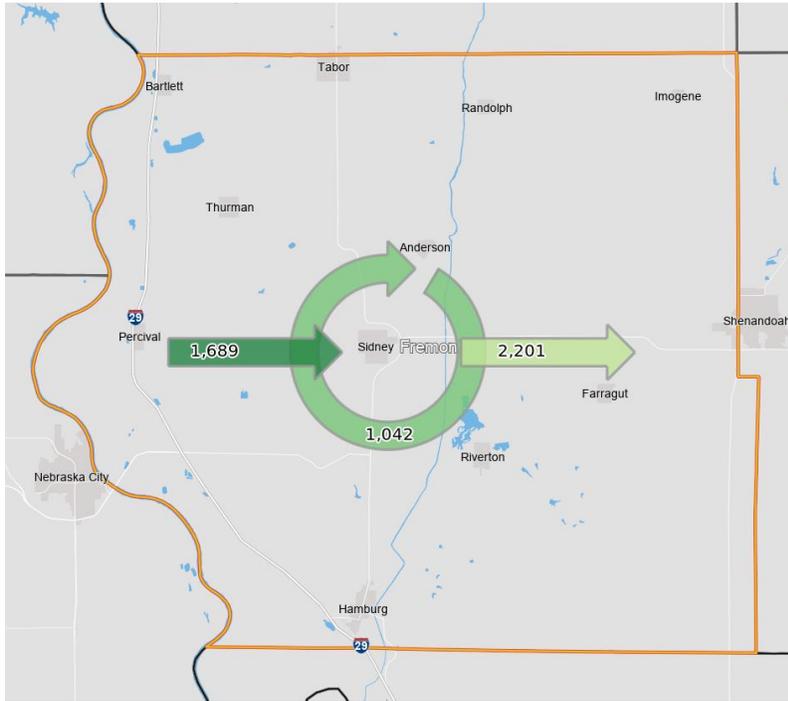
**Figure 19: Chart – Mean Commuter Travel Time to Place of Work by County (2013-2017)**



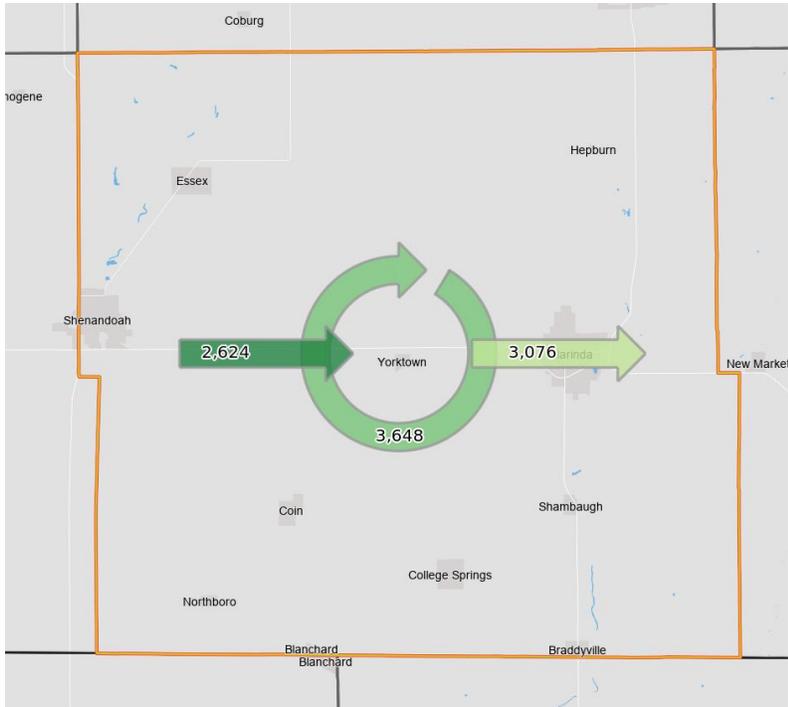
**Source:** US Census Bureau: Community Survey Estimates



**B: Fremont County**



**D: Page County**

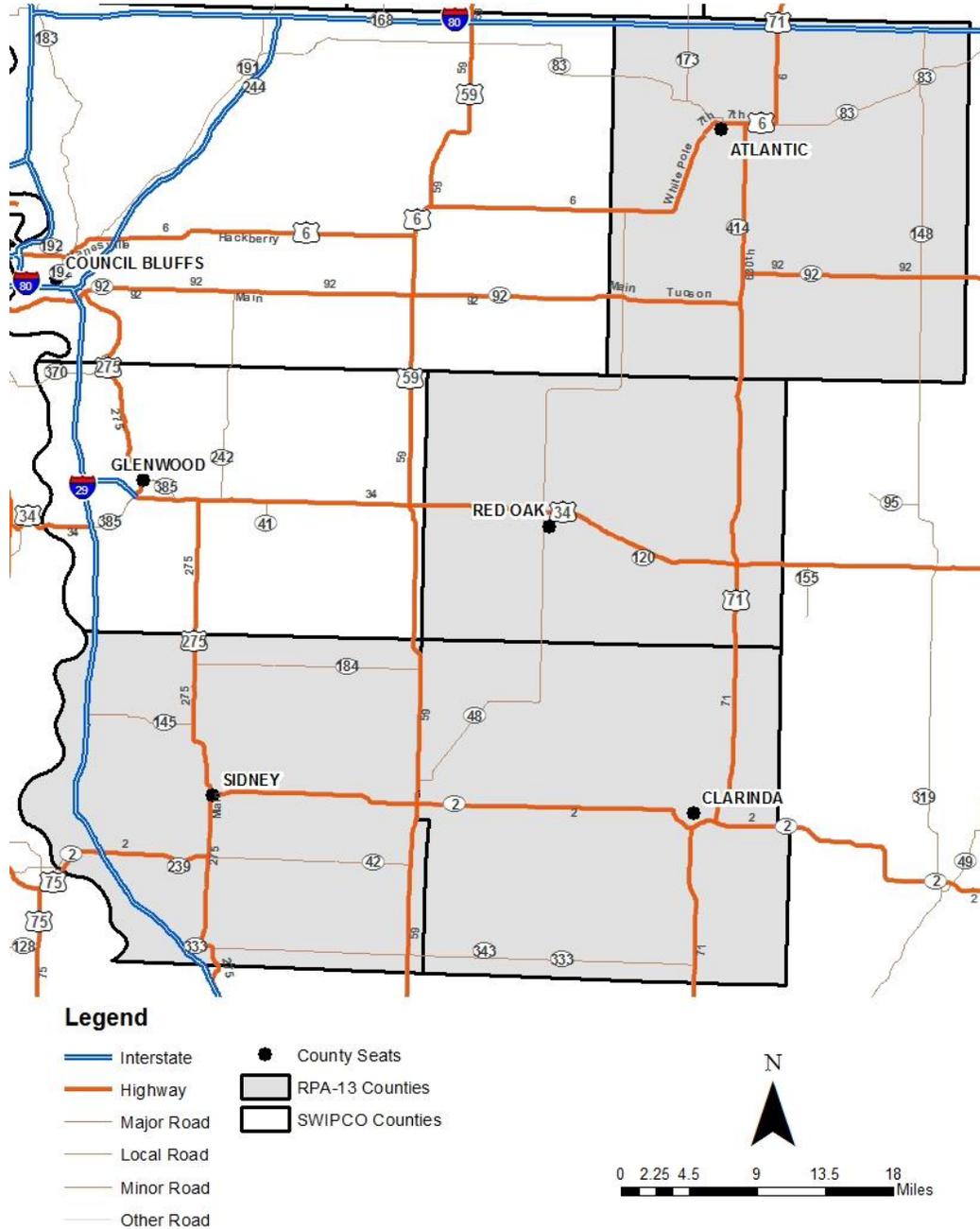


Commuting characteristics vary per county. A larger number of residents in Cass County (58.2%) commute to work within the county than do the other three counties in the RPA. Approximately 50% of the residents of Montgomery County and 54% of residents in Page County live and work within the county. Because of its location along Interstate 29 and proximity to the Council Bluffs-Omaha Metropolitan area, only 32.1% of Fremont County residents live and work within the county, contributing to the higher average commute time for residents. Other notable urban areas that are located just outside of Fremont, and also explain these commuting patterns, include Shenandoah to the east and Nebraska City across the Missouri River to the west. The lack of an urban center and proximity to the Metro Area attribute to the decline in residence working in their home county and higher commute times in Fremont County. Even though Fremont has been experiencing a declining population, the growing percentage of commuters working outside of the county continues to put demand on the current road infrastructure. This will justify short to mid-term projects that make it possible for commuters to travel outside of the county and continue to live within Fremont.

# Roads, Highways and Bridges

## Existing Network

**Figure 21: Map – Major Roads**



**Source:** Iowa Department of Transportation

Highways and roads are essential to the communities within the RPA as the primary mode of transportation and for freight transportation through the region. The region’s road network consists of

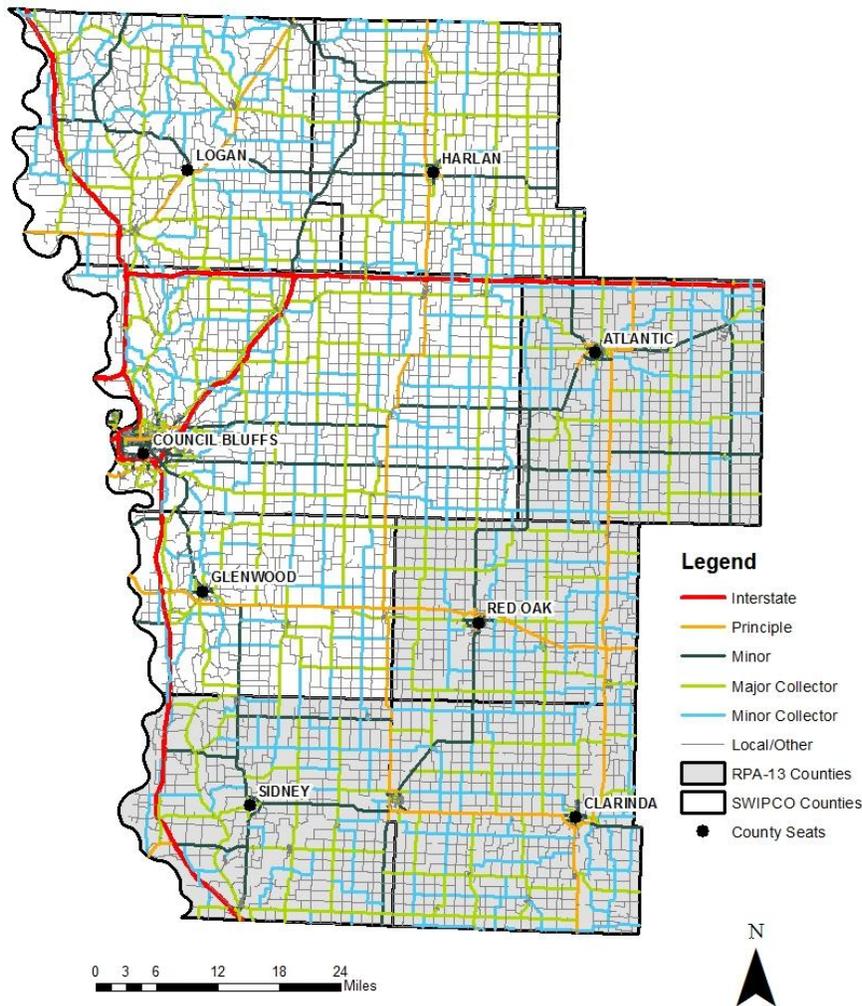
over 4,500 miles of rural and urban roads. There is a wide variety of classifications in the regions road network to address their different traffic capacities and importance in connecting the communities within the region. Region 13 is connected to an interstate on both the north end of Cass County and the west end of Fremont County. Both of these interstates serve as connections to Council Bluffs-Omaha Metro area and Interstate 80 connects to Des Moines. These routes are designed to handle large amounts of traffic that not only cross Iowa but multiple states throughout the United States. Interstate 80 in particular is a vital thoroughfare between Chicago, Des Moines, Council Bluffs, and Omaha before connecting the western part of the US. Interstate 29 is a major link between Kansas City, Missouri and the Omaha and Council Bluff Metro region before heading north into North and South Dakota. These two interstates are designed to transport freight quickly across the nation. In addition, there are several miles of hard surfaced rural roads ranging from interstate, principal arterial, major arterial, minor arterial, major collector, minor collector, and local. These roads are designed to carry goods and equipment as well as people from the most rural communities to the largest metropolitan areas in the region.

The principal arterial roads are largely the U.S. Highways running through the region that can handle large volumes of traffic. Highways 2 and 34 going east and west as well as highways 59 and 71 going north and south both are major routes that handle traffic throughout the region. These highways provide quick access to regions outside of the RPA and are used when interstate roads would be out of the way. They also connect the urban cities of Atlantic, Red Oak, Clarinda and Shenandoah and are important in providing a shorter route for cross county and state travel. Highway 6 and 34 running east-west, together, between Atlantic, Red Oak and Shenandoah is another notable route in the region as it connects these cities with a direct route.

Many of the county highways, classified as major and minor collector roads, connect to the arterial routes and link the smaller communities and unincorporated areas within the region. These routes are vital to the smaller communities whom rely on the larger urban cities of Atlantic, Red Oak, Clarinda and Shenandoah for supplies and are a link to rural homes and communities located within the county. They help transport the goods and materials to and from the farms and local markets located in the urban areas as well as allow farm equipment to be moved from one field to another. These roads also make up a majority of the urban road networks that handle larger amounts of in town traffic.

Roadways classified as local are largely gravel and dirt roads that are commonly arranged in a 1-mile grid system. These roads are designed for and are primarily used to access farm and agricultural fields throughout the region. They are vital in reaching the most remote areas of the county. These roads also make up some of the least used urban roadways that are not major thoroughways and connect the larger parts of the city.

**Figure 22: Map – Federal Functional Highway Classification for RPA 13 and Southwest Iowa (2018)**



**Source:** Iowa Department of Transportation

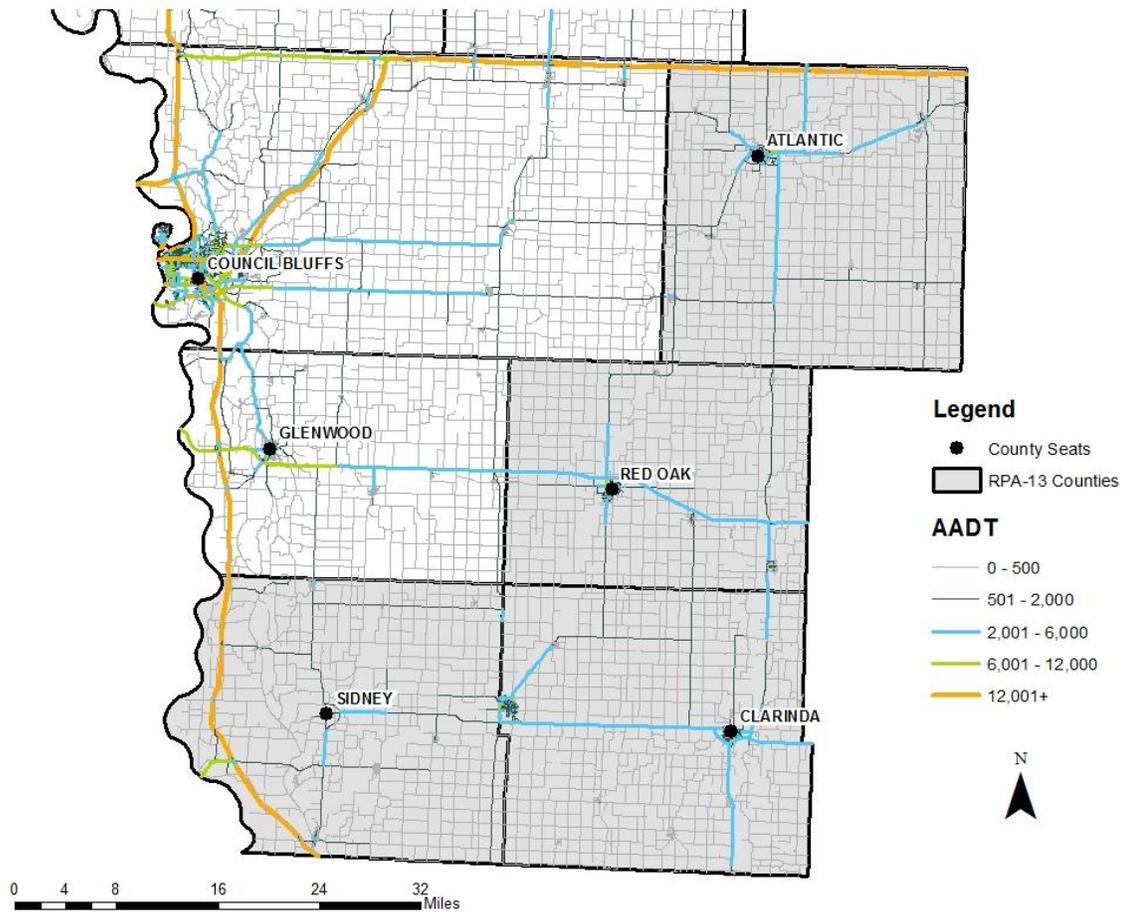
*Annual Average Daily Traffic (AADT)*

AADT is a measurement of the approximate number of vehicles that travel on a given roadway section per day over a one-year period. AADT can show traffic patterns over a particular road segment or a region. Areas with a higher AADT are used more often by vehicles. This information is useful in determining major and minor routes as well as determining possible roads with increased wear or need improvements to handle the existing or projected traffic volume. The Iowa DOT measures AADT on one quarter of the state’s roads each year, measuring the entire state over a four-year cycle.

The area as a whole has an average daily traffic count of 940 vehicles daily with the highest levels occurring on the interstates due to their importance as regional and national routes. Because these roads

handle the heaviest loads of traffic covering the longest distances, they average over 16,000 vehicles each day. Also a portion of 7<sup>th</sup> Street in Atlantic, South 7<sup>th</sup> Street in Clarinda, Broadway Street (Highway 48) in Red Oak, and South Fremont Street (Highway 6) in Shenandoah are among the roads with an AADT higher than 6,000. These roads handle a large portion of in-town traffic as well as incoming and outgoing highway traffic. This accounts for the higher AADT compared to rural roads and other in town streets. The principal arterial and minor arterial routes consist of a majority of the routes with daily traffic counts between 500 and 6,000, though a few major collector routes handle between 500 and 2,000 vehicles. These roads provide the quickest routes between the larger cities in and outside of the region. As can be seen by figure 21, these roads leading into the larger cities usually have higher traffic counts than farther outside of the city. The exception to this is Highway 34 running from Council Bluff through Red Oak and continuing east. This route is often used by those traveling across the state but find interstate 80 to far north. Most collector roads and local roads handle the least traffic, between 0-500 vehicles a day. The collector routes connect smaller communities with each other and to the larger cities in the region, as well as connect to the arterial roads to fill out the network of roadways in both the rural and urban areas. In the urban cities and communities, these roads serve as mostly residential and smaller business districts. In the rural areas, they provide access to the larger arterial roads as well as connect the smaller communities to each other as a quicker alternative route to the larger arterial. These roads serve the smaller communities and rural areas and typically do not handle traffic between the larger communities. They serve as connecting routes to the most rural places in the county. There are very few road segments of no daily traffic and are sparsely located throughout the region.

**Figure 23: Map – Annual Average Daily Traffic Count by Road of the RPA 13 - All Vehicles (2018)**



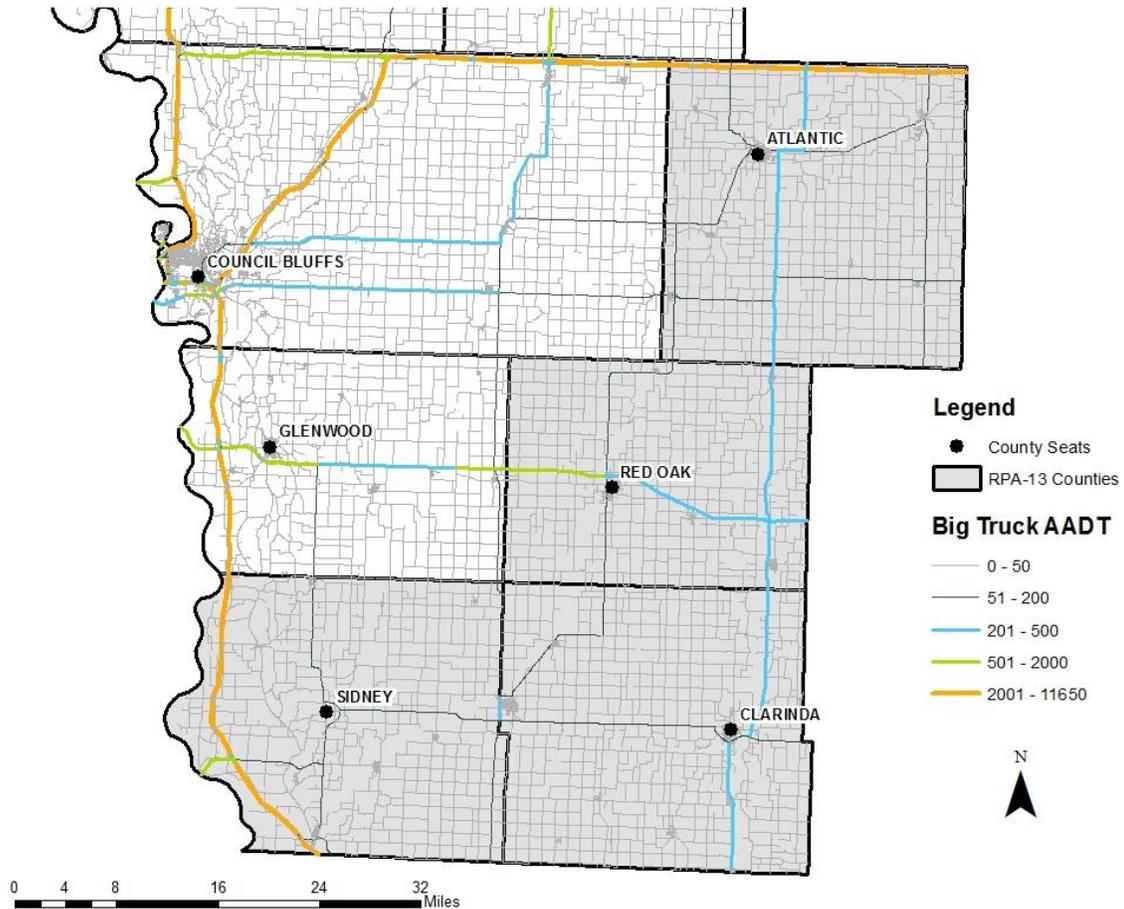
**Source:** Iowa Department of Transportation

AADT was also measured for vehicles with three or more axles. Because a majority of large trucks have more than the two axles than that of a typical commuter vehicle and can be attributed to freight transportation, this gives a good indication of how much freight is moved across the region. The large truck traffic count shows that collector type roads are used less frequently than that of all traffic combined. A comparison between figure 19 and figure 22 shows that large trucks with three or more axles primarily use interstates and arterial roads to move throughout the RPA. Interstates 29 and 80 are major thoroughfares for the trucking industry, which accounts for the increased large truck traffic in figure 22. Because Interstate 80 connects Chicago to the western United States after going through Des Moines and Omaha it is heavily used to transport freight. Interstate 29 is important as a connection to move freight between Kansas City, Missouri, Council Bluffs and Omaha. Kansas City then connects to many other Interstates heading to the east and west coasts as well as continuing south to the Gulf of Mexico.

State Highway 34 is an important regional route for many southern communities in Iowa, thus explaining its high AADT. Although Interstate 80 runs parallel to HWY 34, crosses the state of Iowa, serves the southern half of the state and is located within the northern edge of RPA 13, HWY 34 is the closest major route to many of the communities in the RPA. State HWY 34 is largely important for the communities of

Clarinda, Red Oak and Shenandoah as it is a major route for moving freight through the southern portion of Iowa.

**Figure 24: Map – Annual Average Daily Traffic Count by Road of vehicles with 3 or more axles (Large Trucks)**

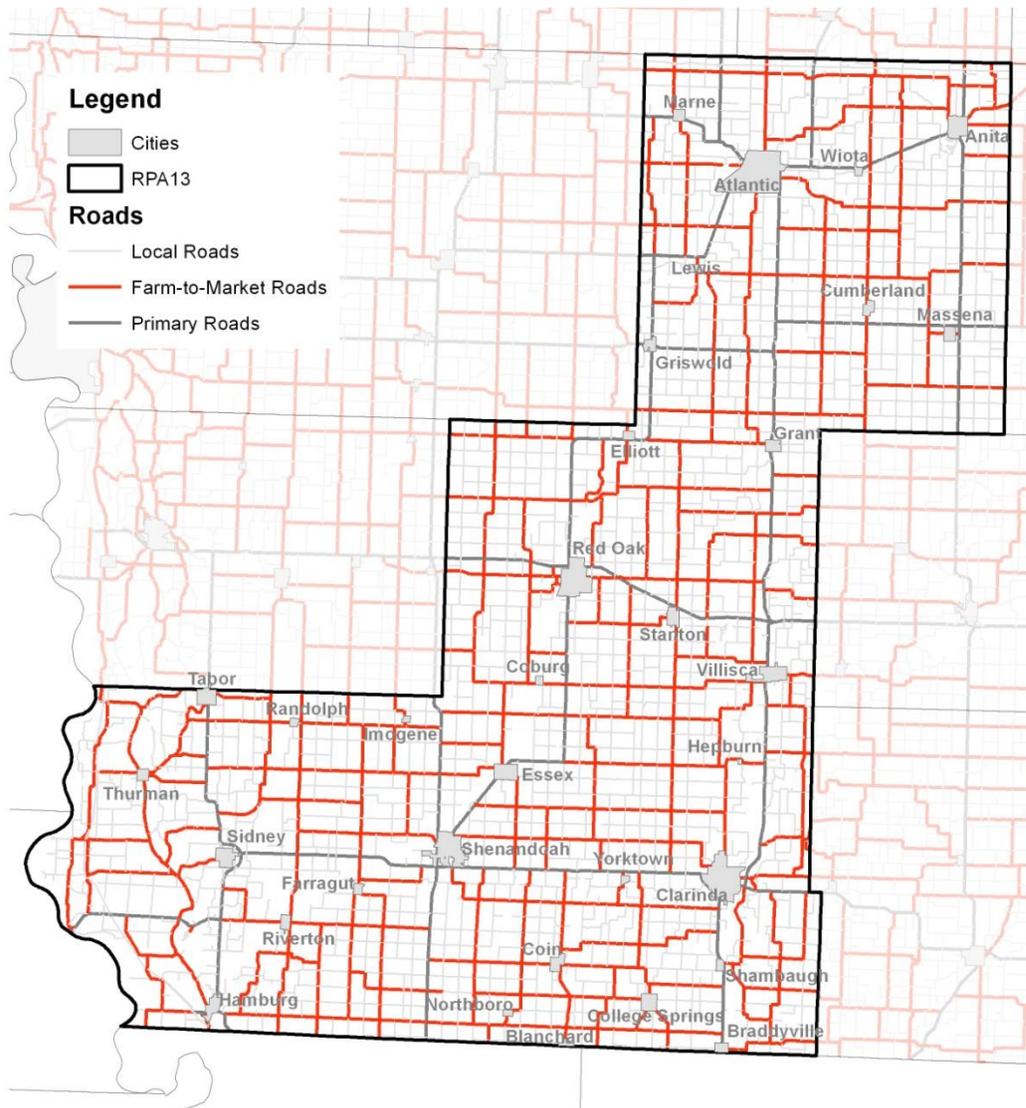


**Source:** Iowa Department of Transportation

### *Farm-to-market*

Farm-to-market roads are either state or county roads that lead from the rural agricultural areas to the local city or market towns. These roads are designed primarily for farmers to use to transport goods and products to market towns and/or distribution centers and are better quality roads, such as highways, than local roads. Farm-to-market roads are designated by the State and 8% of the road use tax money goes to these roads. The road use tax money designated for farm-to-market roads are specified for construction, reconstruction or improvements. The RPA has a total of 1,086.39 miles of granular or paved designated Farm-to-Market roads. Figure 20 is a map of the farm-to-market roads within the region. These roads make up both arterial and collector roads that connect all of the communities in the region.

**Figure 25: Map – Farm-to-Market Roadways in the RPA 13**



**Source:** Iowa Department of Transportation

Farm-to-market roads are vital to the region’s economic activities as the RPA is heavily centered around the agricultural businesses in the community. As can be seen in figure 20, each city is connected to the farm-to-market network, many with multiple connections, and the network provides a grid-like layout that spreads across the RPA. State highways and interstates interweave through the system between the farm-to-market routes and are not designated as such as they are intended long range transportation. Local roads then fill out the remaining network to provide access to more remote parts of the region. These roads support the agricultural businesses throughout the region by providing them access to resources within the cities and to regions outside of the RPA.

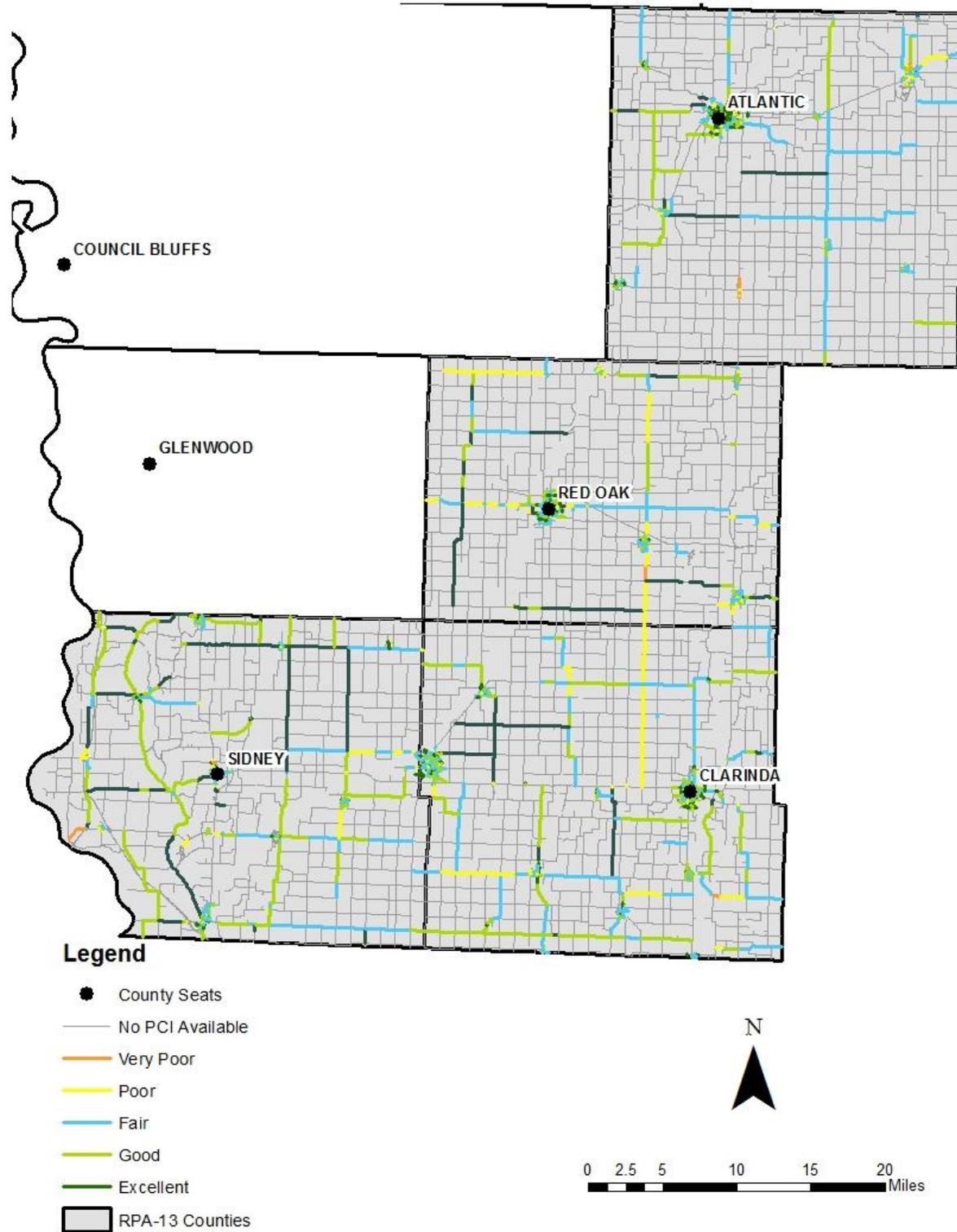
*Pavement Condition*

The Iowa Department of Transportation compiled road condition information with the Iowa Pavement Management Program (IPMP) through In Trans at Iowa State University. IPMP information is available

for roads classified as a federal function classification that are not in the National Highway System. A roadway's pavement is an important factor in the safety of a network of roads and bridges. Pavement that is deteriorated or in poor condition can be uncomfortable for vehicle occupants, unsafe to drive on and a contributing factor in accidents, and can increase wear and tear on vehicles. Roads need to be inspected for cracks, deterioration and damage to maintain safe road conditions. The amount of cracks and the level of deterioration is a factor in determining the priority of road reconstruction and rehabilitation.

The Pavement Condition Index is a measurement showing the current road surface condition. Road conditions are listed on a Pavement Condition Index (PCI) in five categories from very poor to excellent as well as those that do not have a Pavement Condition Index. Figure 23 shows the road conditions for the region.

**Figure 26: Map – Pavement Condition Index (PCI) for the RPA 13 (2017)**



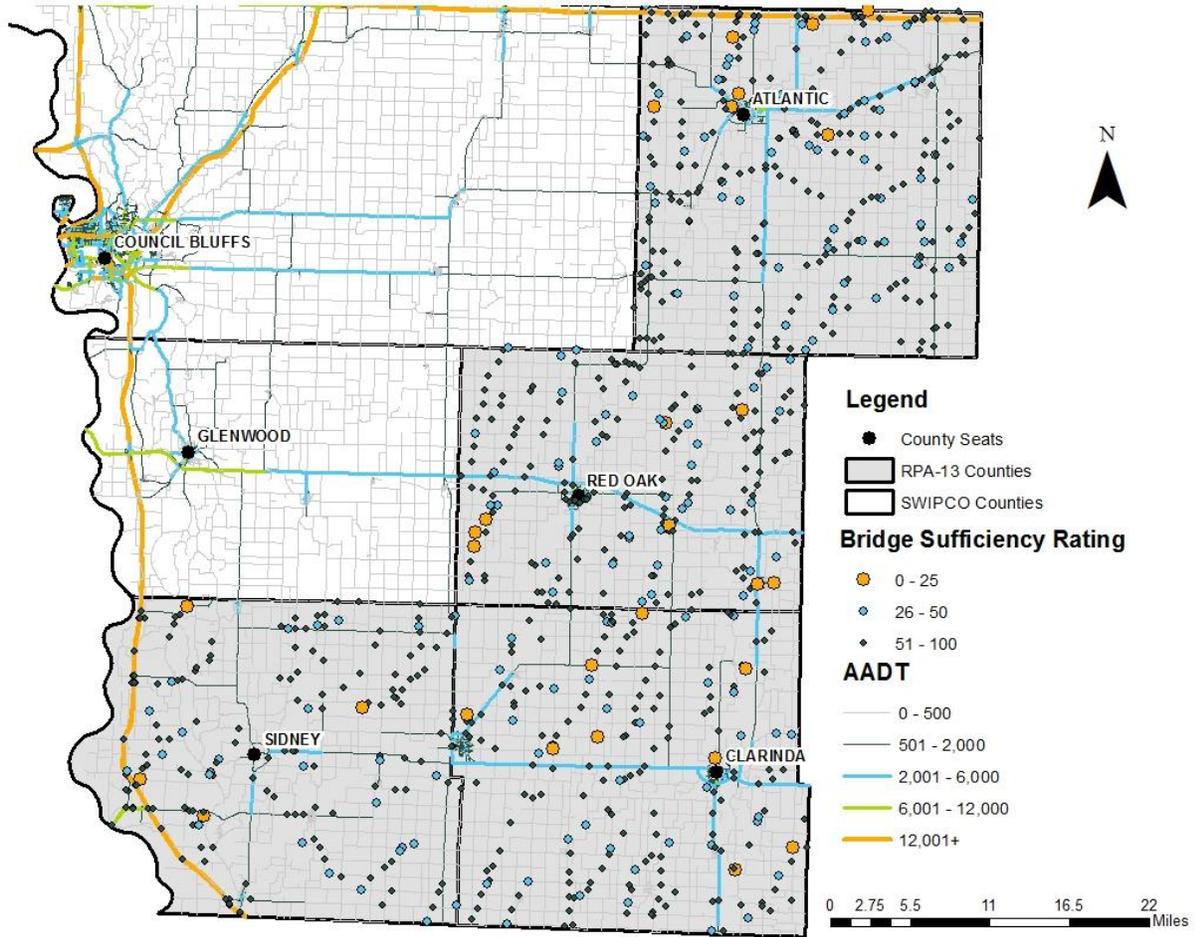
**Sources:** Iowa Department of Transportation; Institute for Transportation (Iowa State University)

Within a network of roads, bridges also have to be maintained in order to keep a road network safe and reliable. As with assessing pavement conditions, bridge conditions are assessed to determine the need for reconstruction or rehabilitation in a network. Along with AADT, a priority can be made to repair or replace certain bridges that are critical to the safety of a network and are of high traffic volumes. Bridge assessment is based on a sufficiency rating between one and a hundred with a score below fifty considered in poor condition.

RPA 13 has a total of 881 bridges located throughout the four county region with 691 of those having a sufficiency rating above 50, 162 of those having a rating between 26 and 50 and 28 having a rating below 25. A majority of bridges with a rating of 50 or less are those located on rural roadways and have a very low AADT. These bridges are of less priority than those located on major roadways as they are not often used. Five communities in the region have a bridge with a sufficiency rating of 25 and below within their city limits. They include Atlantic in Cass County, Stanton in Montgomery County, two in Villisca in Montgomery County and Clarinda in Page County. Of these bridges, three of them have an AADT above 500.

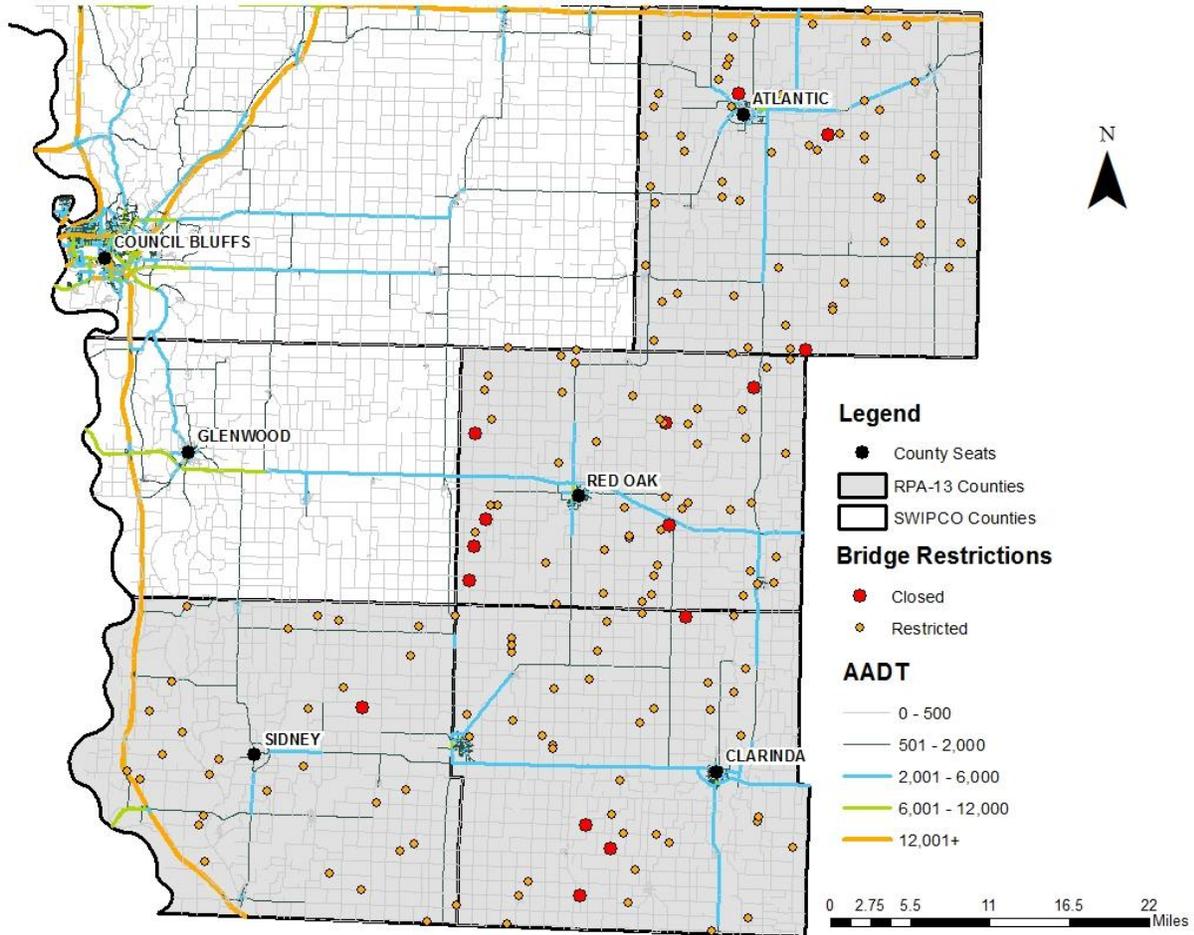
The RPA has a total of fifteen bridges that are closed to all traffic with at least one in each county. Each bridge has a sufficiency rating below 50 with six having a sufficiency rating below 25. All bridges that are closed to traffic are located in unincorporated areas with less AADT less than 500 with the exception of one located within Stanton. Another 171 bridges have restrictions attached to them including lower speed limits, number of vehicles or weight limits. Most of these bridges are located on secondary roads in the unincorporated parts of the region where traffic is light.

Figure 27: Map – Bridge Conditions with Annual Average Daily Traffic for the RPA 13



Source: Iowa Department of Transportation

**Figure 28: Map – Bridge Restrictions for the RPA 13**



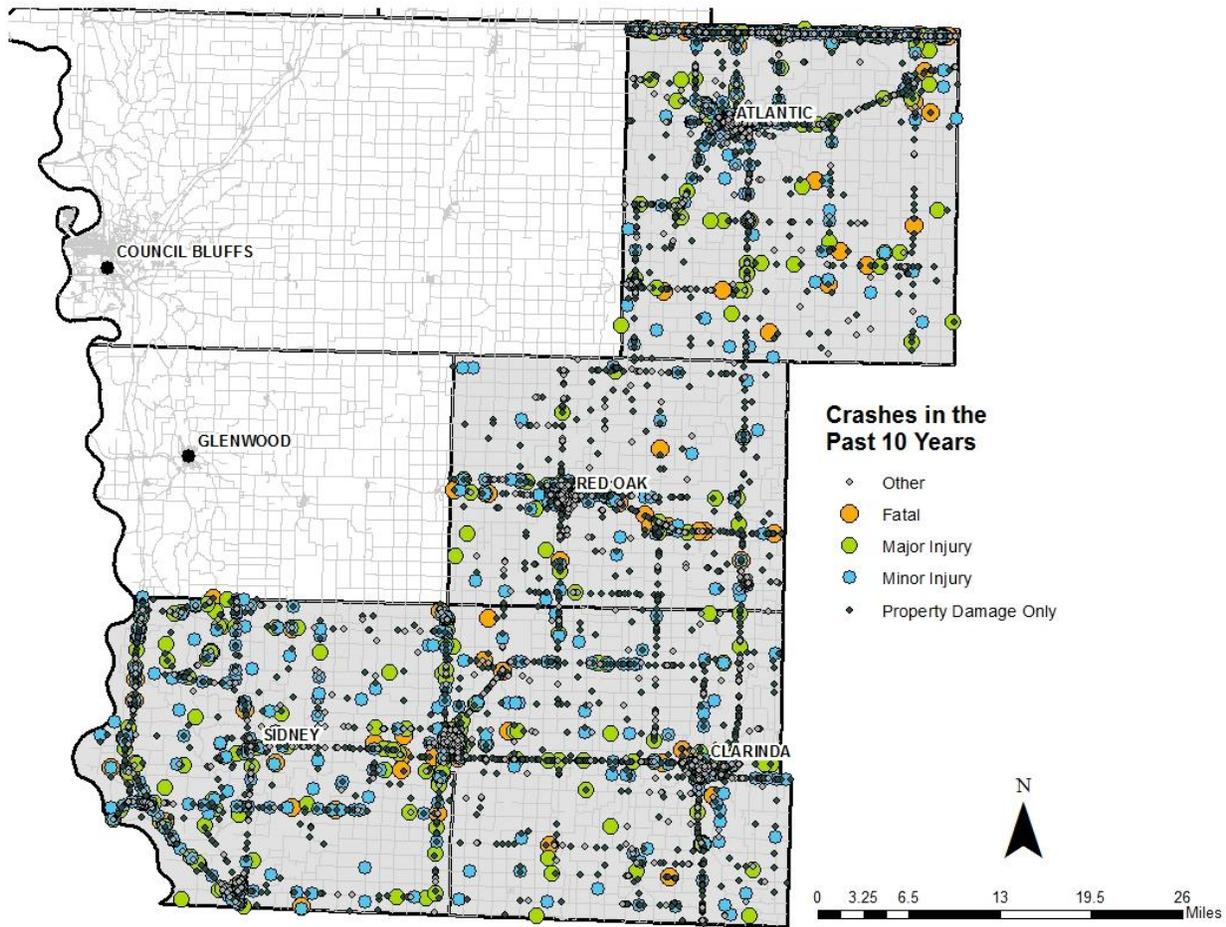
**Source:** Iowa Department of Transportation

### *Collision Incidents*

AADT and the PCI index can be used with crash information to determine segments and intersections that may have safety issues and at what priority roads are given when upgrading and maintaining them. If a section of roadway has a higher traffic count, is in poor and has a high number of incidents, it is likely to be a high priority for maintenance and repair. Also if a portion of network has a high AADT and a high number of incidents, it is possible that there may be issue with congestion. New routes may then need to be created in order to reduce congestion.

Although roadway condition and use are factors in collisions, it is most commonly not the only cause for an incident. Other contributing factors may include driver impairment, distractions and/or age or environmental conditions such as those involving animals and where the surface condition has become icy, snowy or slushy. The design of the roadway may help to mitigate some of the causes of environmental issues on roadways, but may not be able to prevent it. Crash and collision data collected for the RPA 13 region includes those of all incident types and are listed according to the severity of the injuries sustained as fatality, major injury or minor injury. Figure 29 shows locations of collisions in the RPA 13 region between 2008 and 2018.

**Figure 29: Map – Reported Vehicle Collisions in the RPA 13 Region (2008-2018)**



**Source:** Iowa Department of Transportation

There were a total of 7,143 accidents within the RPA 13 region between 2008 and 2018 of which 1,025 resulted in an injury or fatality. Cass County had a total of 2,469 incidents, Fremont County had a total of 1,315 incidents, Montgomery County had a total of 1,333 incidents, and Page County had a total of 2,026 incidents between 2008 and 2018.

When there are a larger number of vehicles using the roads, there is a greater chance that a vehicular accident will occur, thus as shown by figure 25 roadways with the highest concentration of incidents are usually ones with a higher AADT. This explains the high number of incidents along the interstate roadways and highways than the rural roadways. One particular intersection with a high concentration of incidents is located at Interstate 29 and Highway 2 in Fremont County. This intersection has heavy traffic on both roads that make it highly congested.

Urban areas also account for a higher concentration of vehicular accidents. Because urban areas have a higher concentration of roadways, higher AADT, and many more intersections between other roadways and private driveways, the number of incidents is going to be higher and more concentrated than the rural roads. Figure 29 shows the largest cities in the RPA have the highest number of incidents while much of the smaller communities and rural areas a lower concentration of incidents. The portion of Highway 59

running through Shenandoah has a high number of incidents. This portion of the highway has a higher AADT than that just outside of the city limits. Another part in the north east part of Shenandoah has a high cluster of incidents within a two square block area at W Sheridan and W Thomas Avenue where the downtown is located. In Atlantic, 7<sup>th</sup> Street has a high number of incidents due to the road being a heavily used roadway that handles traffic from Highway 6 as well as collecting traffic from all of the local roads within the city.

Highways within RPA 13 are designed for quick access between communities and outside the region and have a higher AADT and a larger number of collision incidents than the lower traveled local roadways. Because these roads cover much longer distances, incidents are less concentrated than urban areas. Certain portions can have an increased concentration of incidents due to a variety of factors. One such example is the highway between Shenandoah and Clarinda where a high number of incidents have occurred with two recorded fatalities. This highway is heavily used to transport freight across the southern part of Iowa as well as a major connection between these two cities. The high number of incidents along this roadway is a result of the large amount of traffic this roadway serves. Highway 34 heading east out of Red Oak has a large number of incidents with two fatalities within the city limits, two just outside of Stanton and four farther east while the stretch of highway west of Red Oak has fewer incidents. The portion of this highway that is north of Stanton that includes the fatality also has a number of incidents with injuries and can possibly be due to the sudden shift in direction the roadway takes as well as the two intersections north of Stanton and the one east where vehicles are coming onto and going off of the highway. East of Stanton is a four-way intersection that sees moderate to heavy traffic use and also has a high number of incidents. With all of these conditions that may facilitate vehicular accidents, this portion of roadway has seen a higher number of incidents than many other roadways in the region. Lastly, many sections of highways that are near populated areas see a high number of incidents around the intersections. In one particular instance, a portion of highway 92 has a high number of incidents around the city of Massena. The slower traffic from the adjacent roads mixing with the faster vehicles is a contributing factor to the number of incident located in that area. Altogether, the largest contributing factor of the increased number of incidents is the larger amount of traffic that these roads handle, but various factors with design, location of intersections and proximity to urban areas are some of the other variables that create conditions for collision incidents.

### *Highway and Roads Strengths, Weakness, Opportunities, Threats*

Transportation in the region is primarily centered on the automobile which has greatly influenced the development of roads and highways in the region. The flexibility and mobility of this mode of transportation has provided the region even greater opportunities to develop and maintain the communities within the region. Because the road network is well established, it is one of the largest assets to the region. At the same time, because the region's transportation has focused on the development of its roads and highways, alternatives have not been greatly explored or developed. A need to maintain the existing infrastructure to support the local services of the region is vital to sustaining the communities and the economic activity within the region. Because the agricultural community relies on the vast network of roads and rail systems to move goods and get the resources needed to sustain their activities, it is imperative that the existing infrastructure be maintained to support the economy of the region. Local communities serve as providers to most farmers as well as have manufacturing and commercial business activities that create goods for export and import. Residents use local roads to commute throughout and outside the region for both living necessities as well as for entertainment.

The heavy reliance on the automobile in the region created a scenario that can threaten the communities within the RPA. Because vehicles rely on fossil fuels for operation, the region is then vulnerable to rising

costs of those fossil fuels. Fuel prices are primarily controlled by outside market forces and because there is a lack of alternatives, communities can only accept these cost or move their business or residence to a place that can provide other alternatives. On top of this, fluctuating prices would make it difficult to plan for future costs within many of the industries. This may also make other locations with alternative options in transportation more attractive. Lastly, deteriorating roads and bridges can be a factor in this type of transportation being an asset. Fortunately, this issue is much more manageable by governments and organizations within the RPA through taxes and levies. It is necessary to maintain the existing network of roads and bridges to sustain current activities and to invest and develop new roads and bridges to promote new activities within communities. Without the maintenance and repair of the roads, they would deteriorate and the costs of transportation would increase as well as the number of accidents. Therefore a majority of the resources spent towards transportation infrastructure in the future will go towards maintaining the existing roads and bridges.

A meeting was held on July 9<sup>th</sup>, 2019 with the RPA technical committee to discuss the highways, roads and bridges of the region. During this meeting, strengths, weaknesses, opportunities and threats of the system from the previous Long Range Transportation Plan were evaluated for continued relevancy.

### *Strengths*

#### **National Highway System located throughout the region**

RPA-13 is home to two highways classified as National Highways Systems; Highway 34 and Highway 71. These highways tend to connect the larger urban cities within the region with each other while branching out to other cities outside the region. Connection of these cities allows for more expedited and efficient transportation of good and people throughout the region.

#### **Two interstates link the region with surrounding metropolitan areas**

Along with the National Highway System, RPA-13 features two interstate systems; I-80 and I-29. The interstate systems provide direct links to the metropolitan areas of Des Moines, Council Bluffs and Omaha. This connection allows for transportation of goods, services and people between RPA-13 and the metropolitan areas and beyond.

#### **Interconnectivity of National, State, and County systems throughout the region create a strong network**

Having multiple large highways and interstate systems isn't everything when it comes to transportation within a region. While many of the cities within RPA-13 are located directly on these major roadways, even more of them are not. The interconnectivity of the local and state highways to the National Highway System and Interstate System is a crucial piece of the transportation system. This connections allows for all people within the region and goods to travel effectively within and between regions and states.

### *Weakness*

#### **Region has a dispersed population**

Within four counties, RPA-13 has 34 incorporated communities with populations ranging from approximately 20 to 6,700 with only 4 communities having a population of approximately 5,000 or

above. This dispersed population raises problems for the transportation system including higher transit miles, more miles of roads and necessary roads with lower usage.

### **High costs associated with maintaining a rural network**

More roads will be needed to reach the dispersed population in RPA-13 which will lead to an increase in roads to maintain. Iowa sees all four seasons throughout a year from frigid snowy winters to hot summers. These weather changes bring snow removal, road repairs, pavement repairs and gravel road maintenance. Along with the typical weather, cities and those involved with transportation must be prepared for natural disasters that could impair roadways.

### **Several highways in poor condition**

Being in a rural location with a smaller, dispersed population means that roads will see a lot of traffic from those commuting to work, farm equipment moving fields and trucks moving goods. Along with this heavy traffic, funding for rural areas can be lacking especially when spread over the large road system within the region and the state. This lack of funding can mean that smaller less utilized roads may fall to the bottom of the project list often times ending up in poor condition before they are repaired.

### *Opportunities*

#### **Economic development can be created along interstate and major highways**

With multiple major highway systems and interstates running through the region, there is an opportunity for economic development to take place along these networks. These road networks connect with two close by metropolitan areas that could also add to the appeal for development in the RPA-13 region.

#### **Rural areas can capitalize on housing developments for commuters working in surrounding metropolitan areas**

Many residents live in the RPA-13 region and commute to metropolitan areas for work due to lower housing costs here and more employment opportunities there. Cities within RPA-13 could capitalize on the idea of being a bedroom community (a place where people live and sleep but work elsewhere) by initializing housing developments. This would increase regional population and the tax base.

#### **Highways system allows for increased freight movement throughout the region**

The location of major road networks throughout the region and connecting to surrounding regions and states is appealing for freight movement. The ease to move items between regions mixed with the proximity to metropolitan areas would be very appealing to manufacturing businesses.

#### **New funding sources such as gas taxes or other fees to maintain and develop network infrastructure**

Road departments have very tight budgets for a never ending list of projects. Any and all new funding sources makes a huge difference in how much road can be repaired each year or new road for a connection that needs to be made.

### *Threats*

#### **Declining population throughout the region**

Like many areas in rural Iowa, RPA-13 has been seeing a population decrease over the years. A lower population could result in less funding for road departments with already tight budgets.

### **An increase in cost that limit funding for maintenance and expansion**

Along with tight budgets, the cost of materials and labor continue to increase. This increase in costs will allow for fewer repairs under already strained budgets leading for worse road conditions throughout the region.

### **Deteriorating highways and bridges**

Increased costs of repairs and lower funding for road projects would lead to an increase in road deterioration. If roads become too bad, it may cause people to move out of the region or those transporting goods to find other routes. Both scenarios would take a toll on the economy of RPA-13.

### **Flooding creating disruptions in road network usage**

Most recently in 2019, flooding throughout the region caused major damage to the road network. From the interstate to secondary gravel roads, roadways were flooded and washed out leading to shut down routes and massive detours. For roadways not damaged by floodwaters, oversaturation in the ground led to washouts and sinkholes.

## **Public Transit Services**

### *SWITA - Regional Public Transportation*

The Region is served by the Southwest Iowa Transit Agency (SWITA), providing the Region with a rural demand/response transit system. SWITA operates in a service area that includes Cass, Fremont, Harrison, Mills, Montgomery, Page, Pottawattamie, and Shelby Counties. The City of Council Bluffs is not directly served by SWITA, but a number of services within and brought into the metropolitan area are provided by SWITA by agreement with the city and various agencies within the city.

In order to meet the needs of various agencies and organizations, and to extend the reach of SWITA, service is structured in a variety of ways:

- **Routed Service** - SWITA provides a series of designated routes with both the route and time of service specified. This service is paid for by the individual through a stated set of fares.
- **Direct Service** - SWITA provides the vehicle and the driver, and bills the agency contracting for service on a per-mile or per-passenger basis.
- **Taxi Voucher** - SWITA provides taxi service for seniors and persons with disabilities in larger communities in the region.
- **Lease Vehicle, Agency Operates** - SWITA provides a vehicle to several agencies for an agency staff person to operate. The agency reimburses a portion of the operating cost for this service, and provides vehicle maintenance and insurance.
- **SWITA Leases Vehicles from Agency, SWITA Operates** - For agencies with capital, but no staff to operate the vehicles, SWITA will lease the vehicle, and provide service back to the agency.
- **Demand Service** - SWITA provides curb-to-curb service during established hours.

All of these flexible contracting arrangements are meant to promote increased coordination.

*Number of Vehicles/Type*

Southwest Iowa Transit Agency (SWITA) operates 97 vehicles within the eight-county service region. Vehicles in use range from 20 years old to brand new with the average age being between 5 and 6 years. These vehicles vary from medium and light duty buses, SUVs, minivans and cars with over half of the inventory having wheelchair accessibility, to accommodate a wide variety of riders and services. A complete list of vehicles can be found in the appendix.

**Figure 30: Table – SWITA Vehicle Inventory 2019**

Vehicle Type	Number in Inventory
Medium Duty Bus	3
Light Duty Bus	58
SUV	1
Minivan	31
Sedan	4

**Source:** Southwest Iowa Transit Agency

*Ridership*

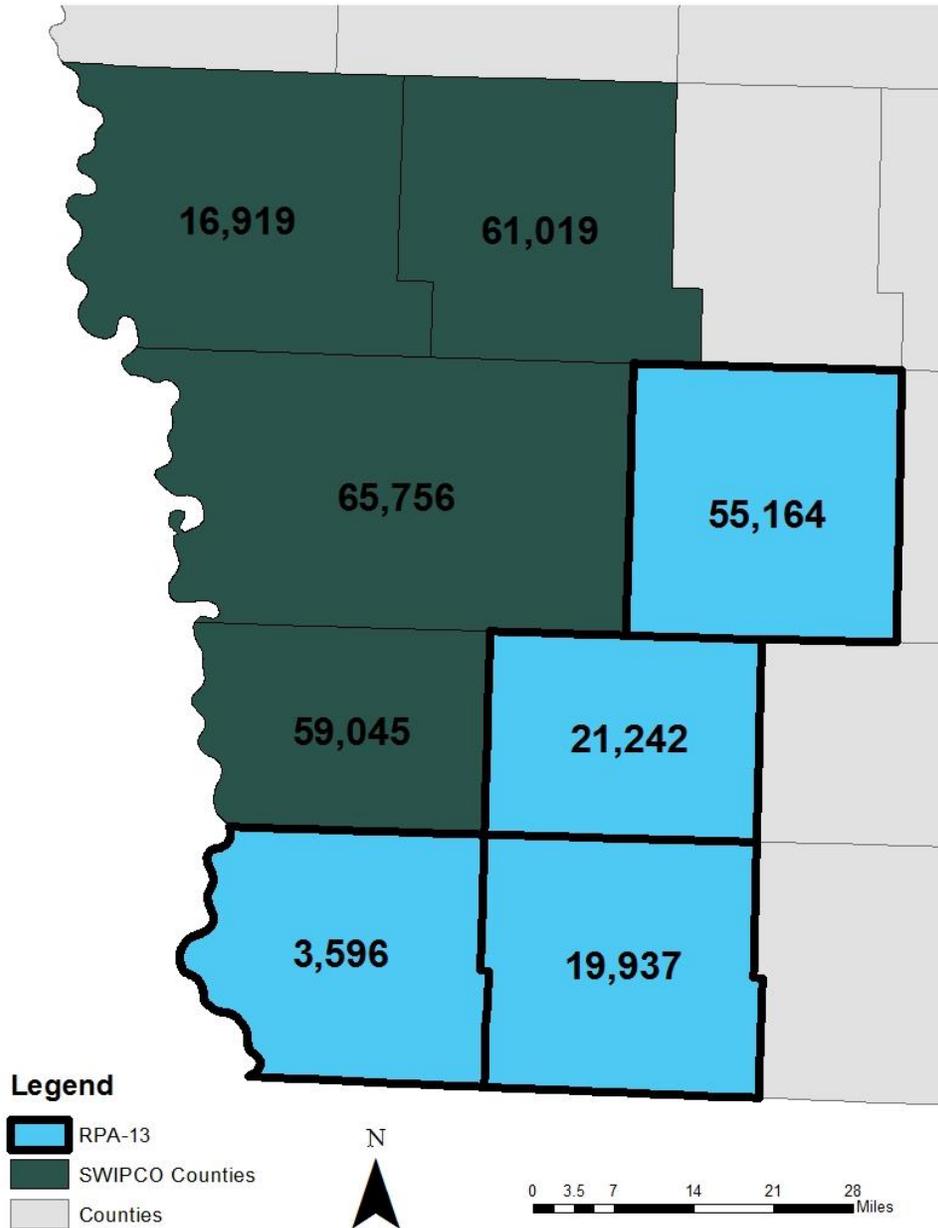
The graphs show ridership and mileage statistics for the eight-county region that SWITA serves. The graphs show that overall the ridership has slowly decreased for the region since 2012 while the total miles has increased in the same time period. As the graphs show, there is fluctuation in these numbers meaning that no increase or decrease is a permanent trend. The overall decrease in rides and increase in mileage can be attributed to the lower gas prices allowing people to drive themselves more and increased services that SWITA is providing such as work routes and taxis.

**Figure 31 A-B: Chart – Regional Transit Agency Ridership, Vehicle Miles FY2009- FY2018**



**Source:** Southwest Iowa Transit Agency

**Figure 32: Map – Southwest Iowa Transit Agency Ridership by County for FY19**

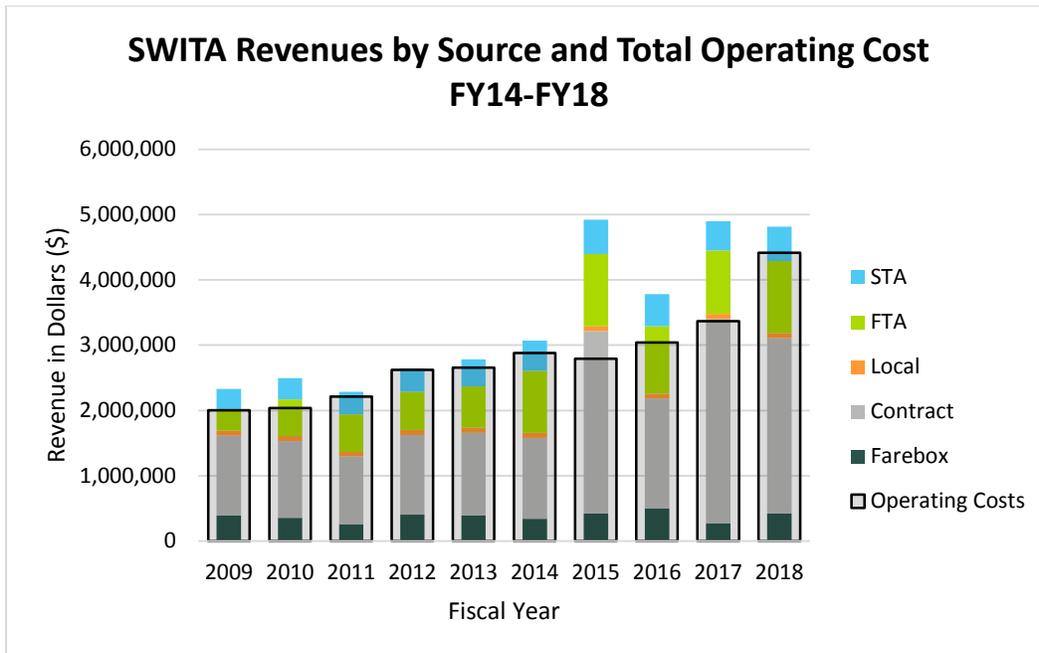


**Source:** Southwest Iowa Transit Agency

*Cost and Revenues*

Although ridership has been slowly decreasing, an overall trend in the total revenues for SWITA has seen an increase with two of the past ten years seeing a slight decline. Contract revenue has been the largest factor in the increased revenues while Federal Transit Assistance, State Transit Assistance and passenger revenue have steadily increased or seen relatively constant numbers. The large fluctuation in contract revenue between 2015 and 2018 has been due mainly to changes in Medicaid funding and enrollment.

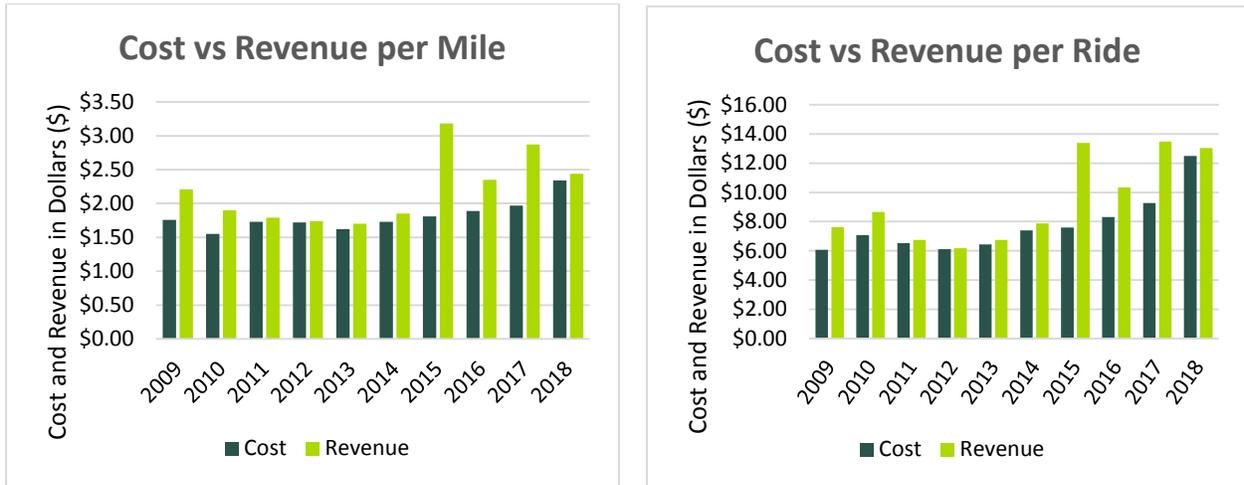
**Figure 33: Chart – SWITA Cost and Revenues FY2009-FY2018**



**Source:** Southwest Iowa Transit Agency

Each year SWITA has seen an operating profit margin with the smallest margins between 2011 and 2012 and the largest margins in 2015 and 2017 where profit was over \$1,000,000. 2015 saw a large revenue margin, over \$2,000,000, which was due in part to changes with Medicaid funding. 2015 saw the first full year of the Affordable Care Act signed into law by President Obama. This Act led to a substantial increase of Medicaid enrollment and spending throughout the country. After 2015, changes were made to the funding for workshops for those with disabilities which resulted in a decrease in Medicaid ridership. Although large profits were seen in 2015, 2016 and 2017, that money has been largely used to update and expand the fleet of vehicles used by SWITA. Forty-eight new vehicles have been purchased between fiscal years 2017 and 2019 with fifteen more planned for fiscal year 2020. Profit margins have significantly dropped off since the 2015 increase and it is expected that fiscal year 2019 will show a loss and fiscal year 2020 will have a 4%-5% profit range.

**Figure 34 A-B: Chart – Cost and Revenue per Mile/Cost and Revenue per Ride, FY2009-FY2018**



**Source:** Southwest Iowa Transit Agency

*Transit Strengths, Weakness, Opportunities, Threats*

Currently, SWITA handles most of the region’s public transit needs. Because of the rural nature of the region, transit is quite different than metropolitan or large city public transportation. With a smaller ridership base, transit in rural regions are made up of smaller and lighter fleets than the bigger cities. Public transit in rural areas must also offer a variety of services to meet the needs of the public which means more vehicles covering more miles for less rides when compared to large city operations. Public transit is limited to special services such as contracts to local businesses within the area to provide transportation services to its employees or provide transit to those unable to drive or get a ride. Contracts are adjusted based on need and funding available. Other, non-contract routes, are also adjusted based on the need and funding for those routes.

In recent years, the demand for work routes transporting employees to their area of work has been increasing. Large employers in the area have found it beneficial to their employees and company to establish this service with SWITA. Currently, there are several work routes within the region and crossing multiple regions which include transporting people from Cass County to Shelby, Pottawattamie County to Shelby, Cass County to Montgomery County, Omaha/Council Bluffs to Oakland and Omaha/Council Bluffs to Harlan. As more employers begin to see the benefits of these routes, it is inevitable that the demand for this service will grow and possibly require partnerships between multiple transit providers in different regions.

A meeting with SWITA officials was held on July 10, 2019. At this meeting, various aspects of the transit system including strengths, weaknesses, opportunities and threats were discussed. The following is a SWOT (Strength, Weakness, Opportunity, and Threat) Analysis of the transit system in RPA 13.

*Strengths*

**Public Transit Services offered in all four counties**

Public transit services are offered throughout the four counties in the RPA region. This connection allows for people to effectively and reliably commute throughout the region for medical appointments, work, shopping or a variety of other reasons.

### **Services offered in an eight county district allowing commuting between counties**

Along with RPA-13, SWITA serves the counties of Harrison, Mills, Pottawattamie and Shelby. Covering transit services for eight counties is a large task but it provides much needed connections throughout the larger region allowing residents in rural communities the ability to safely access transportation to a store in their hometown or to a medical facility in urban area of Council Bluffs.

### **Two interstates border the region connecting surrounding metropolitan areas**

Having access to large road networks are key for any transportation system. Two interstate systems run within the region, I-80 through Cass County and I-29 through Fremont. This allows for faster and direct transportation throughout the region and to surrounding regions including special rides to Des Moines or Iowa City.

### **Increased security on buses with installation of surveillance cameras**

Surveillance cameras are installed on all buses and allow for peace of mind for passengers and drivers. Footage from cameras can be reviewed if rules were broken, items were misplaced or driver behaviors or driving abilities are questioned with the intent of keeping all parties involved as safe as possible.

### **GPS tracking systems installed on vehicles**

Along with surveillance cameras, all vehicles are equipped with GPS tracking. This not only allows for increased safety by being able to locate all vehicles, but improves the efficiency of the system by allowing dispatchers to locate vehicles closest to those needing rides.

### **Tablets and push-to-talk phones**

Utilizing tablets and push-to-talk phones has simplified and improved the dispatch system. Tablets are in every vehicle and allow for real time updates to each driver's route from office personnel while also providing real time data, such as who was picked up or if a person didn't show up, to those in the office. Push-to-talk phones provide more reliable service than previously used CB radios allowing constant communication between all drivers and office staff.

### **Public transit a great resource for elderly, disabled and those without the ability to drive**

The public transit system can be utilized by all ages and abilities but it is especially helpful for those who can't or don't have the ability to drive. This service gives those who can't or don't drive the ability to schedule and attend medical appointments, pick up medication and groceries or tend to any other errands that they need. The public transit system also offers transportation to school for kids giving peace of mind to their parents knowing their kids will have a safe ride to school.

### **Taxi service offered in Atlantic, Red Oak, Shenandoah, Clarinda and Sidney**

Taxi service is offered in all of the region's urban cities plus Sidney. This service allows people to call a driver to set up a ride for immediate pick up. This provides more freedom to the rider by not requiring a pre scheduled ride.

### *Weakness*

#### **Region is very rural with highly dispersed communities**

By nature, the region is a very rural setting with only four of the thirty-four cities considered urban areas. This rural setting produces a population that is very dispersed throughout the region requiring more miles to be driven to reach the residents which increases the cost of operation and the cost to riders.

#### **Low ridership levels to support non-stop fixed route services to all communities**

Within RPA-13, the largest city is Atlantic with around 6,700 residents. The low population levels of incorporated cities in the region prevent public transit from having non-stop fixed routes to all communities. The lack of these routes produces an uncertainty to the public about what services are available and when.

#### **Lack in interest by the general public to use public transit**

Since the region is rural in nature, most residents have access to one or more vehicles to drive and the area is easily drivable due to the connected road network and lack of traffic congestion. These factors lessen the public's desire or need to utilize or seek out public transit.

### *Opportunities*

#### **Potential funding opportunities through new contracts, better services and outside grants**

With a smaller population and limited ridership, it becomes difficult to fund the transit system. New and growing services such as work and school routes, better vehicles and grant funding allow for expanded and continued services. As new funding becomes available, transit services in the area will continue to improve and grow.

#### **Economic development throughout the Region provides opportunity for employee shuttles and commuter routes**

As economic development throughout the region continues, the demand for transportation will increase. Large employers can find the idea of employee shuttles and work route beneficial to their company productivity and success rate. By offering designated routes to large employers, public transit can aid in additional economic development within the region while ensuring employees have reliable access to work transportation to maintain an income.

#### **Opportunities to increase efficiency within the public transit system**

As new technology is developed and released, efficiency within the transit system will continue to increase. Better dispatching equipment, tracking programs and communication devices will free up valuable staff time that can be used on other transit projects within the office.

## *Threats*

### **Declining population**

The region has been seeing a declining population for decades. A smaller population base will mean less potential riders and less money coming in to support the system. The increasing costs and declining population could potentially mean that some services would need to be removed.

### **Increased fuel and maintenance costs**

Costs for fuel and repair are always on the rise. These increased costs can be reflected by increased costs of rides which could make the service unaffordable to some and lead to a decrease in riders. Constant efforts are made to prevent an increase in costs reflected on the riders.

### **Deteriorating highways and bridges cause many routes to detour**

As mentioned earlier in the chapter, the rural nature of the region, limited funding and dispersed population take a toll on the road network with some roads becoming in poor condition. Poor roadways or roadways under construction may pose a threat to timeliness of drop-offs by causing detours.

### **Independence of driving rather than using public transit being a societal preference**

Often times people in rural communities prefer driving themselves and especially with older adults, see it as a part of their independence. This preference usually prevents people from utilizing public transit and instead, utilizing personal vehicles to commute to where they need to go.

### **Road and transportation networks designed for personal vehicles**

Road networks throughout the region were designed around the societal preference to drive instead of for public transit or other transportation methods. Missing from the region and surrounding areas are amenities such as bus stops, bump outs, bus/transit lanes, complete sidewalks, etc.

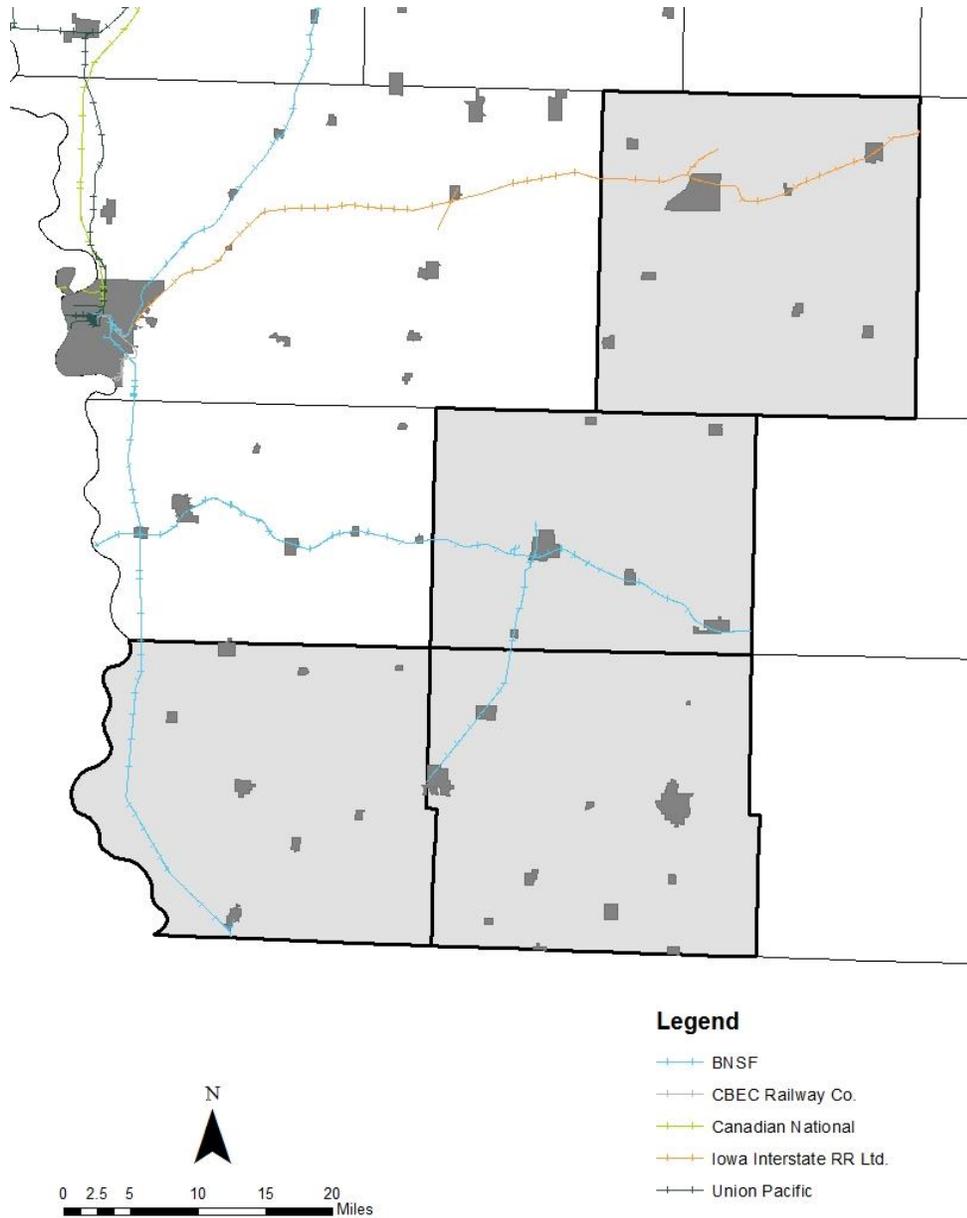
## **Rail**

### *Current Railroad Network*

The railroad network performs an important role in moving goods produced and consumed throughout the Region. The railways provide a vital link between the Region and outside markets and operate more efficiently and require fewer resources to operate than roadways, reducing highway costs and emitting fewer harmful chemicals than operating by highway. The Region currently possesses rail lines operated by a Class I operator: Burlington Northern Sante-Fe R.R. Co. (BNSF); and a Class II Operator: The Iowa Interstate R.R. Ltd. (IAIS). Amtrak also operates on the BNSF line through Montgomery County by trackage rights.

BNSF operates rail lines that travel through Montgomery County, with facilities in Red Oak, Stanton and Villisca. A branch of this line runs south from Red Oak through Coburg, Essex, Shenandoah, and ending in Farragut. Another BNSF line runs through Fremont County, with facilities in Bartlett, McPaul, Percival, Payne Junction, and Hamburg. Iowa Interstate Railroad travels through Cass County, with facilities in Atlantic, Wiota, and Anita. No abandonments of these rail lines are planned according to the IDOT.

**Figure 35: Map – Railroad Location and Owners (2018)**



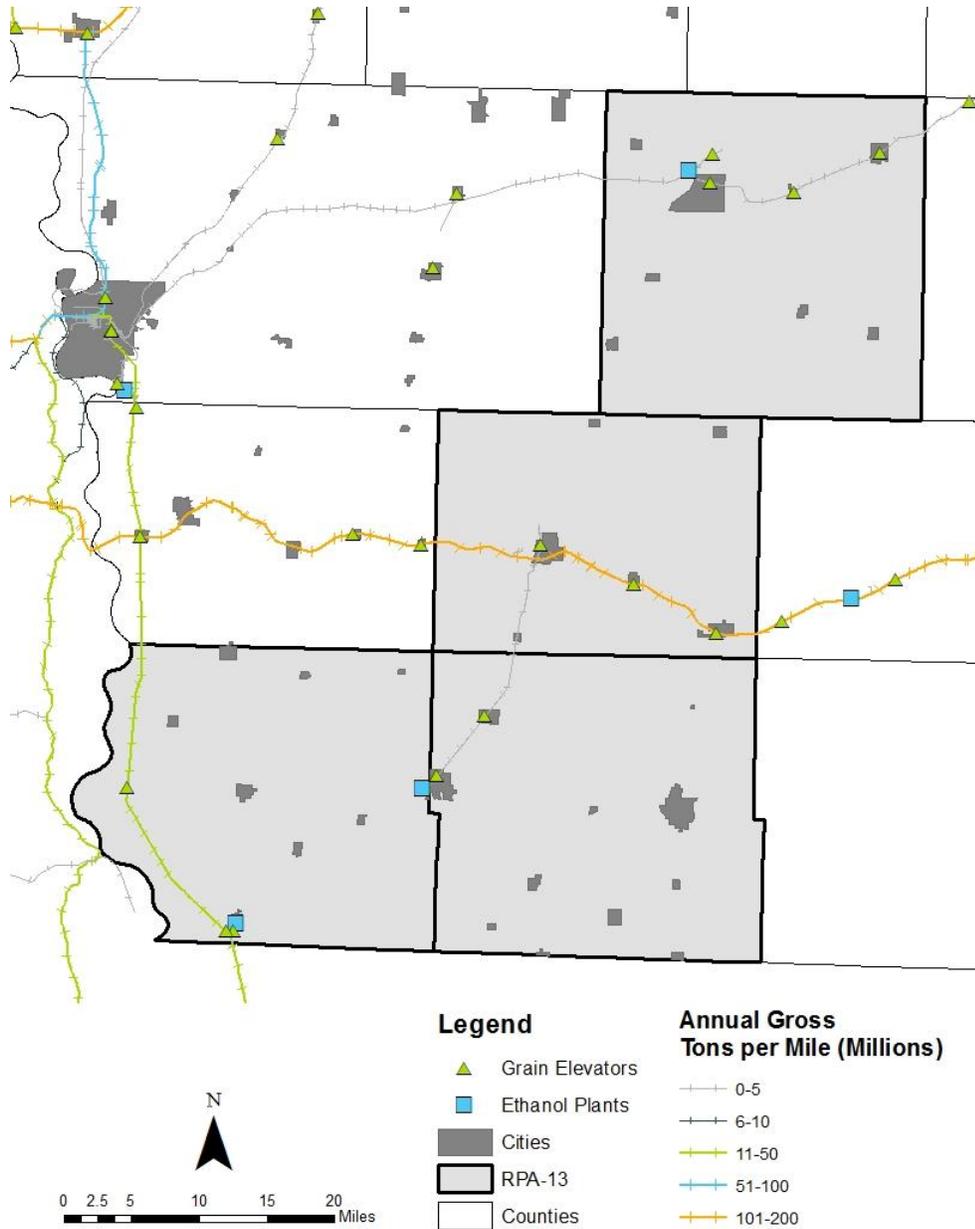
**Source:** Iowa Department of Transportation

### *Freight Movement*

The amount of freight shipped, and the number of trains utilizing the rail lines vary greatly from one railroad to another. The Burlington Northern Sante-Fe Railroad extends through the heart of the Country and ships the largest annual amount of freight among the active lines in the Region, particularly on the line moving east-west through Montgomery County. BNSF carries over 100 million gross tons per mile

on the east-west line, while the spur line from Red Oak to Farragut in Fremont County carries 0-5 million gross tons per mile. BNSF also carries 11-50 million gross tons per mile through Fremont County. Through Cass County, the Iowa Interstate Railroad carries 0-5 million gross tons per mile.

**Figure 36: Map – Railroad Traffic Density and Hopper Car Locations (2018)**



**Source:** Iowa Department of Transportation

The main products handled by the BNSF include coal, grain, intermodal containers and trailers, chemicals, metals and minerals, forest products, automobiles, and consumer goods. The main products handled by the IAIS include farm products, food products, transportation equipment, waste and scrap products, and metals.

## *Rail Strengths, Weakness, Opportunities, Threats*

Railroads currently operating through the region are primarily used for freight transport in and out of the region. With hopper car locations within the RPA and the ability to load and unload freight, the region currently has access to rail services that could help. Unfortunately, these services are limited to freight movement as commercial passenger services are not currently available in the region. Amtrak does operate a route that runs through the region with stations located in Creston, Iowa and Omaha, Nebraska. However at this time and in the foreseeable future, rail services will primarily be used for freight with passenger services located outside the region.

The following is a SWOT (Strength, Weakness, Opportunity, and Threat Analysis) of the rail system in RPA 13

### *Strengths*

#### **Major national rail line crosses through the region**

The Burlington-Northern Santa Fe railroad traverses through the heart of the Country and through three of the four counties within the region. This major line allows for a larger capacity of goods to be moved to and from the region and is appealing to businesses.

#### **Hopper Car capacity**

In a region such as RPA 13 where there is a vast amount of grain production, having a rail system with a large hopper car capacity is crucial. This allows the transportation of grain by rail instead of relying solely on the road system.

#### **Economic areas located along rail lines**

As in many areas across the Country, rail lines often spur economic development by businesses that wish to utilize the rail system for material and product transportation.

### *Weakness*

#### **Large cities without rail**

Not every large community within the region has access to a rail line such as Clarinda and Sidney. This can deter development by businesses that would depend on the freight transportation provided by rail.

#### **No Amtrak stops within the region**

Amtrak currently has a line that runs through southern Iowa entering the state from Nebraska in Council Bluffs and continuing through Burlington into Illinois. Although the line runs through RPA 13, there are currently no stops which means those wishing to utilize this service must travel to the nearest stop in either Omaha or Creston.

### *Opportunities*

#### **Increased freight movement**

Having multiple rail systems, one of which is a national line, running through the region increases freight movement in and out of the region. This allows for more resources coming in and the potential for more products going out.

### **Economic development can use existing rail transportation infrastructure**

When looking to expand or relocate, certain businesses will look for locations near rail lines for easier access to freight movement. By having multiple lines through the region, there will be more spots that are appealing to these businesses.

### **Amtrak route running through the region**

Amtrak currently has one line that runs across southern Iowa and through RPA 13. Although there are currently no stops within the region, the line runs through several towns with Red Oak being the largest opening the opportunity for a future stop.

#### *Threats*

### **Abandonment of routes with low usage**

As industry in the region and transportation methods change, rail lines can become underutilized and eventually become abandoned by the rail company. Abandoned lines can put a strain on industries that were still relying on them and can become unsightly to neighboring properties.

## **Aviation**

The RPA 13 region has a total of five publicly owned airports that provide a variety of services to both private and commercial non-passenger operations. There are no commercial passenger airports within the region. The closest commercial passenger airports are located in Omaha, Nebraska to the west and Des Moines, Iowa to the east. Airports within the region primarily serve general aviation and occasionally business jets.

### *Airports within the RPA 13 Region*

#### *Anita (Cass County)*

The Anita Municipal Airport – Burke Memorial Field is located along Highway 83 in the central portion of Anita. The airport has a turf surface on runway 05/23 with a 95 foot width and a length of 2,825 feet. There are LIRL runway lights but no approach lights. There is no rotating beacon, no local fuel, and the airport is not attended. The airport has a VOR type navigation system and is a basic service II airport almost exclusively designed for small aircraft. The total economic output as estimated in the 2010 Individual Airport Report prepared by the Iowa DOT Office of Aviation is \$5,200.



**Source:** Iowa DOT – Office of Aviation

### *Atlantic (Cass County)*

The Atlantic Municipal Airport is located 2 miles west of the City of Atlantic. The airport currently has two runways; 2/20, which has a concrete surface, is 75 feet in width and 5,000 feet long; and 12/30, which has an asphalt surface, is 75 feet in width and 3,911 feet long. There are MIRL runway lights on both runways and REIL approach lights on 12/30. The airport has a rotating beacon, is attended Monday through Friday from 8:00 A.M. to 5:00 P.M. and on Saturday from 8:00 A.M. to 12:00 P.M., and has 100LL & Jet A fuel. The airport has GPS Instrumental Approach systems. The airport is general service airport, which support most twin and single engine general aviation aircraft and occasional use by business jets. The total economic output as estimated in the 2010 Individual Airport Report prepared by the Iowa DOT Office of Aviation is \$4,643,600.



**Source:** Iowa DOT – Office of Aviation

### *Clarinda (Page County)*

The Clarinda Municipal Airport – Schenck Field is located along Highway 71 on the southern edge of the City of Clarinda. The airport has two runways; 13/31, which has a turf surface, is 255 feet in width and 2,425 feet long; and 02/20, which has a concrete surface, is 75 feet in width and 5,000 feet long. There are no runway lights or approach lights on 13/31, but 02/20 have MIRL runway lights and REIL approach lights. The airport has a rotating beacon, 100LL and Jet A fuel, and is unattended. The airport has NDB and VOR type navigation systems. The airport is general service airport, which supports most twin and single engine general aviation aircraft and occasional use by business jets. The total economic output as estimated in the 2010 Individual Airport Report prepared by the Iowa DOT Office of Aviation is \$856,200.



**Source:** Iowa DOT – Office of Aviation

### *Red Oak (Montgomery County)*

The Red Oak Municipal Airport is located along H-34, 2 miles west of the City of Red Oak. The airport has three runways; 13/31, which has a turf surface, is 210 feet in width and 2,035 feet long; 17/35, which has a concrete surface, is 60 feet in width and 2,901 feet long; and 05/23, which has a concrete surface, is 75 feet in width and 5,000 feet long. There are no runway lights on 13/31, but 17/35 and 05/23 have MIRL runway lights. Runway 5/23 has REIL approach lights. The airport has a rotating beacon, both 100LL and Jet A fuel, and is attended Monday through Friday from 8:00 A.M. to 5:00 P.M. The airport has NDB and VOR type navigation systems. The airport is general service airport, which support most twin and single engine general aviation aircraft and occasional use by business jets. The total economic output as estimated in the 2010 Individual Airport Report prepared by the Iowa DOT Office of Aviation is \$1,412,100.



**Source:** Iowa DOT – Office of Aviation

*Shenandoah (Page County)*

The Shenandoah Municipal Airport is located along Manti Road 1 mile west of the city. The airport has two runways; 12/30, which has a concrete surface, is 75 feet in width and 3,299 feet long; and 4/22, which has a concrete surface, is 75 feet in width and 5,000 feet long. Runway 04/22 has MIRL runway lights and REIL approach lights, 12/30 has MIRL runway lights. The airport has a rotating beacon, both 100LL and Jet A fuel and is attended Monday through Saturday from 8:00 A.M. to 5:00 P.M. with after hour service by phone. The airport has NDB and VOR type navigation systems. The airport is a general service airport, which support most twin and single engine general aviation aircraft and occasional use by business jets. The total economic output as estimated in the 2010 Individual Airport Report prepared by the Iowa DOT Office of Aviation is \$535,400.

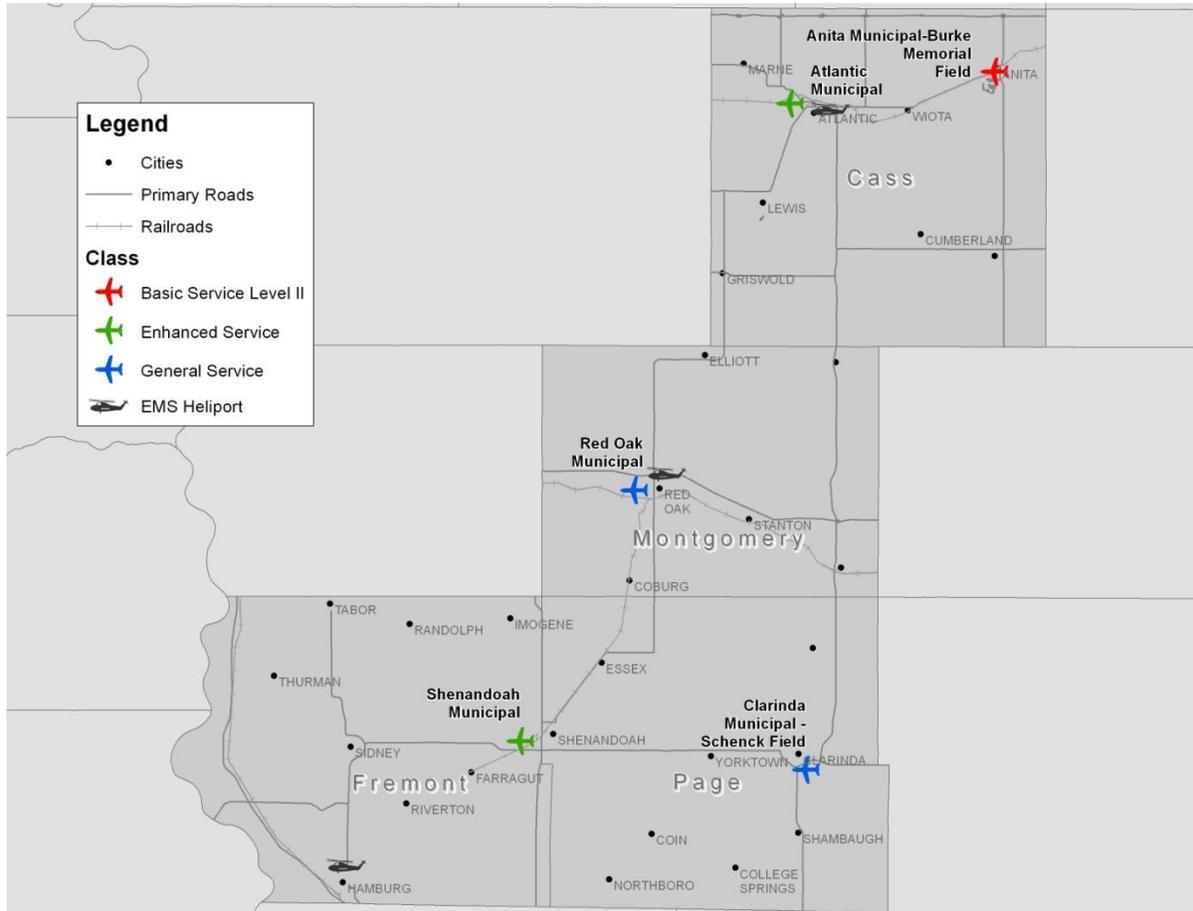


**Source:** Iowa DOT – Office of Aviation

*EMS Emergency Medical Service Heliports (Cass, Fremont, Montgomery County)*

Emergency Medical Service heliports add to the capabilities and enhances the accessibility of advanced medical services of rural community hospitals. EMS heliports in Iowa are used to transport healthcare professionals, organs, blood, and medical equipment. Pilots, mechanics, support staff and medical crews are ready to fly at any moment. RPA 13 has three heliports located at Cass County Memorial Hospital in Cass County, Grape Community Hospital in Fremont County and Montgomery County Memorial Hospital in Montgomery County.

**Figure 37: Map – Airports in RPA 13**



**Source:** Iowa Department of Transportation

*Aviation Strengths, Weakness, Opportunities, Threats*

The region’s airports are limited in size due to the low demand and services provided by larger national airports just outside the RPA. While these airports are a strength and opportunity in the region, they face the threat of decreased or limited funding for operation which could limit staff hours and in turn deter use. With the 2013 federal budget crisis, many airports lost funding and services that affected services either temporarily or permanently. This loss in funding highlights the dependence of these regional airports on outside funding and the scenarios that could limit services they can provide.

Through communication with representatives from the airport boards in the region the following SWOT (Strength, Weakness, Opportunity, and Threat) Analysis of the aviation system in RPA 13 was developed.

*Strengths*

**Airports located in each urban city**

RPA 13 is fortunate to have an airport in every county (with one county having two) strategically located in the urban cities. The dispersed location of facilities provides good access points throughout the region for the spread of goods and services that are dependent on aviation transportation.

### **Support for commercial non-passenger services at each of the airports**

Although there are not currently any passenger services at any airports within the region, commercial services are supported at each. This allows businesses to quickly bring in or send out materials and products as needed and is appealing to businesses when looking at the region for a potential location.

### **Many of the airports are staffed and have fueling services**

Of the five airports within the region, three of them have set hours when they are staffed and four have on facility access to fuel. These service allow for a higher capacity to cater to more aircrafts coming in to the area.

### **Commercial passenger services located in Omaha and Des Moines**

Although no airports in the RPA region offer commercial passenger services, those services can be found in the nearby metro areas of Omaha and Des Moines. This proximity allows residents of the region to be able to access easy transportation to anywhere in the world by driving an hour and a half or less.

### *Weakness*

#### **No commercial passenger services located within the region**

There are currently no commercial passenger services within the region which limits citizens from utilizing airports. The lack of citizen involvement and awareness in the region's airports hinders the knowledge of why the airports are critical for the area.

#### **Limited capacity in airport services**

By nature, airports located within RPA 13 are smaller in capacity due to the rural environment. The limited capacity (available hangers, runway size, staff, etc.) can severely hinder the airports and deter potential users who are accustomed to larger, more equipped facilities.

#### **Not all airports are staffed**

Due to funding constraints and limited capacity and use, not all airports within the region are staffed. Currently, Anita and Clarinda airports do have staff available at the airports during certain hours. This lack of staff can severely limit the use of the facilities by those interested.

### *Opportunities*

#### **Runway capacity to assist in economic development**

Four out of the five airports in the region listed potential projects to improve their runways by expanding, constructing, resurfacing or widening. Increasing runway capacity would allow for more and larger aircraft to be able to utilize the facilities in turn bringing more goods, services and potential companies to the area.

## **Development of facilities to accommodate aircraft**

In the Individual Airport Reports for the region's airports, three airports has planned projects to increase hanger capacity to accommodate more aircraft. Hanger expansions would allow for more temporary or permanent storage of aircraft for personal or economic purposes.

## **Provide services such as fuel stations, staff, etc. to accommodate aircraft**

While most of the airports in the region provide fuel and staffed hours, two of them don't. By providing these services, more aircraft would be able to utilize the facilities and bring more of an economic impact to the area.

## **Creation of a regional airport**

With declining population and tighter budgets, the region may wish to explore the possibility of consolidating airports in smaller communities to create a regional one. This could consist of a detailed report exploring budgets, expenses and various scenarios such as leaving the airports as they are, combining them to an existing location or building a centrally located facility.

### *Threats*

#### **Declining population**

Declining populations produce threats to many aspects of the transportation system including aviation. A dwindling population leads to a smaller tax base and less funding for airport operations and could also lead to a lowered need for multiple airports in the region.

#### **Limited funding for operation**

Like most modes of transportation, funding is limited leaving the boards to operate under tight monetary constraints. Within the Individual Airport Reports, most facilities in the region had lists of potential projects that totaled between \$2.5 and \$6.5 million. Funding for these projects can be very limited and can lead to outdated or inadequate facilities.

## **Trails**

### *Established Trails*

Established trails within the Region include the following:

- The Wabash Trace Nature Trail is a 63 mile former rail line from Council Bluffs to Blanchard. Roughly half or 29.3 miles is within the Region. The surface is crushed limestone with small sections of concrete and asphalt and can be accessed in each of the towns it travels through including Imogene, Shenandoah, Coin, and Blanchard. There is a trailhead park in Shenandoah at the original Wabash Depot which is on the National Register of Historic Places. The Depot was moved from its original location, has undergone exterior renovations and is in the process of interior renovations. There is a user fee of \$2.00 per day or \$20.00 per year. Uses include biking, walking and cross-country skiing.
- The T-Bone Trail is an abandoned rail line between Audubon and Atlantic. This trail is proposed to

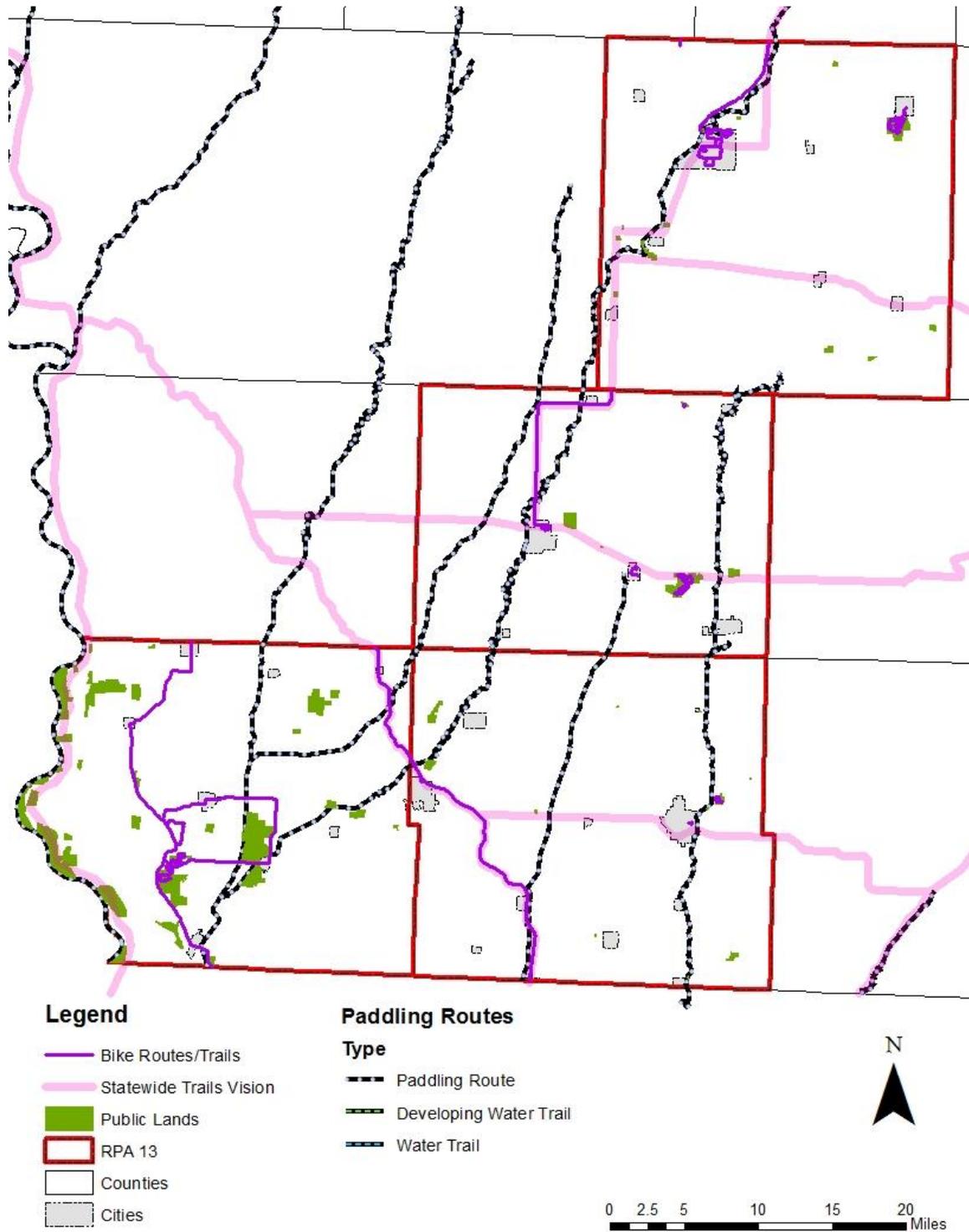
become a portion of the American Discovery Trail as it passes through Iowa. It is a twenty mile paved trail that goes from Audubon to three miles north of Atlantic. It is a multiuse trail available for biking and hiking.

- Little Mermaid Trail System connecting the Danish communities of Elk Horn and Kimballton and will eventually connect to the T-Bone Trail. The trail will run through the Danish Windmill grounds in Elk Horn with stops at the Danish Immigrant Museum and the Hans Christian Andersen Sculpture Park.

There are several smaller, local, multiuse trails throughout the region including the following:

- Grassroots Trail connecting the City of Anita to Lake Anita State Park in Cass County. Trail is 0.93 miles long and is paved asphalt.
- Lake Anita Trail is 3.79 miles long traveling around the Park on a paved or granular path (2.56 miles) and along roadways (1.23 miles).
- Atlantic Bike Route is a 0.1 mile paved asphalt trail connecting the City of Atlantic to the Atlantic Sports Complex.
- The Schildberg Recreation Area is a park area located northwest of downtown Atlantic featuring 20 camping spots with electric and water hook ups, three lakes, dog park, playground and 4 miles of paved trail. This park area is connected to trails located around the well field near the Little League Sports Complex along Olive Street. It is intended that the Schildberg Recreation Area trails will connect with the American Discovery Trail and the T-Bone Trail.
- The Atlantic Wellhead trail is connected to the Schildberg Recreation trail by a one mile paved Troublesome Creek Connector trail. It is a one and one half mile paved hiking and biking trail in the Atlantic wellhead area which also contains the Atlantic little league baseball complex. A kiosk /trailhead gazebo will be constructed in the fall 2019 which will provide information about area trails.
- Bull Creek Trail, along Bull Creek within the City of Atlantic, is a 0.7 mile long paved asphalt trail.
- Pilot Grove Trail is a 0.46 mile paved concrete trail traveling around the lake at Pilot Grove Park in Montgomery County. There are public facilities, including camping, picnic areas, and courts for various sports, within the park.
- Stanton Greenbelt Trail is a paved concrete trail encircling the City of Stanton. Extensions to the trail are in process and will connect the daycare center and Viking Center to the trail system.
- City of Red Oak is a newly created 2.7 mile hard pavement multi-purpose trail within city limits. It was initiated by the Friends of the Red Oak trails, a non-profit organization of local volunteers. Its purpose is to promote healthy recreational benefits in the community.

**Figure 38: Map – Current Trails in the RPA 13 Region**



**Source:** Iowa Department of Transportation, Iowa Department of Natural Resources

## *Proposed Trails*

Proposed trails within the Region include the following:

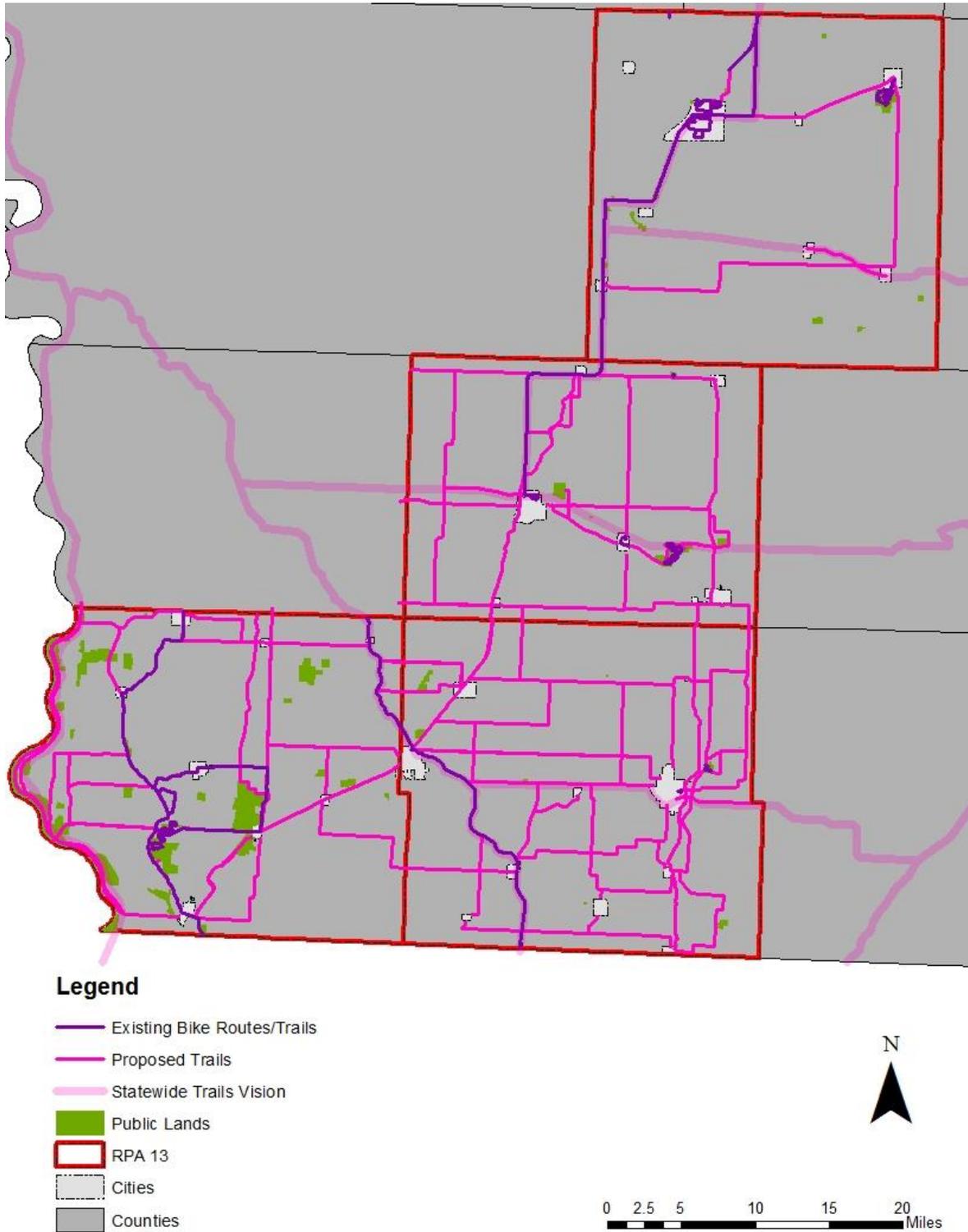
- The American Discovery Trail is a planned network of trails from Delaware to California. Although many elements of the trail system are established and constructed in Iowa, including portions of the T-Bone Trail mentioned above, the portion of the trail from Atlantic to Council Bluffs is not established. The Region proposes a route that goes along the Wabash Trace Nature Trail south to the City of Shenandoah, along State Highway 48 through the Cities of Essex, Red Oak, Elliott and Griswold, to the Hitchcock House in Lewis, along county roads to Atlantic and onto the T-Bone trail into Audubon County. State Highway 48 has been widened to allow for a bicycle path on the shoulder. Other bicycle facilities are needed for this routing to occur.
- The Lewis & Clark Multi-Use Trail is a trail of statewide significance as identified by the IDOT. It is proposed that the trail will follow a similar route to Lewis & Clark through the region along the Missouri River and the Loess Hills from Fremont County to Sioux City. Currently, the trail would utilize existing infrastructure such as paved, low- volume roads and existing trails with the goal being to move to a completely off-road trail system. Starting capital investments for the trail are minimal being primarily sign installation and pavement markings.
- City of Atlantic received REAP funding for a ten acre East Ridge Park located in a new housing subdivision area on the southeast corner of the city. The East Ridge Park includes a half mile paved trail, benches, gazebo and dog waste station.

Other trails in the Region that would not be multiuse trails suitable for biking or walking include the following:

- Loess Hills National Scenic Byway is a designated road system through seven counties of western Iowa where the Loess Hills landforms are dominant. The system includes a 220 mile main “spine” and 185 miles in 16 excursion loops by national, state and locally significant roadside development areas. This byway extends through portions of the Fremont County area.
- The Mormon Trail is a nationally designated and historically significant multi-state trail system, which passes through a portion of Cass County. This historic trail is noted by ROW markers and U. S. Park Service information panels, two of which are located along the trail at the Hitchcock House and the Nishnabotna River Ferry House near Lewis.

The map below shows existing trails in the region, proposed trail taken from existing county trail plans and locations for the statewide trails vision from the Iowa DOT’s Iowa in Motion 2045 Plan. The statewide trails vision is a conceptual network of multi-use trails separated from vehicular traffic that connect communities with natural amenities. While the proposed trail network extracted from county trail plans is also conceptual, it is not strictly composed of separated multi-use trails. With limited funds available for trail development, some trail connections may need to be made by utilizing existing roadways.

**Figure 39: Map – Routes of Proposed and Existing Trails**



**Source:** Iowa Department of Transportation, Iowa Department of Natural Resources, County Trail Plans

### *County-wide Trails Organizations*

Currently, each county within RPA-13 has a county trail board to help the region better coordinate its development of trails. These trail boards assist in the planning, funding and development of trails by coordinating with surrounding trail boards and stakeholders. Along with the designated county trail boards, there are various other trail groups within the region including large regional groups and smaller trail specific groups such as the Frontier Iowa Trails (FIT) Network, Nishna Valley Trails, Southwest Iowa Nature Trails, Farragut Admiral Trail Committee and more.

### *Trails Strengths, Weakness, Opportunities, Threats*

The expansion of trails and recreational routes present great opportunities for economic development, health benefits and an increase in quality of life for residents within the region. By developing new trails and connecting existing routes, as well as connecting local attractions and sites, there could be greater connectivity within the tourism community that would greatly enhance what the region has to offer and open doors for new businesses to enter the communities. With the increased connectivity, trails must also be viewed as an alternative to typical transportation methods. As more trails are developed connecting communities and attractions, the possibility of biking or walking to neighboring communities, work, education and more becomes a reality. Having trails more prevalent in the region will improve the quality of life for many residents by allowing them to become more physically active and improving their health, both physical and mental.

Recently, trail boards have been created in every county within the RPA region continuing the forward momentum of trail development. While the region has seen the trail momentum continue, it still faces many difficulties. The region has plans for large trails connecting to each other and multiple communities but fragmentation of these trails hinders access and the full potential cannot be utilized. Problems with acquiring land to make connections, funding to develop or maintain trails, and/or reluctance to develop the region's trails are all issues and threats to completing an interconnected system that could provide greater benefits to the communities and the region as a whole.

A meeting was held on August 14<sup>th</sup>, 2019 with various trail groups to discuss the trail system of the region. During this meeting, strengths, weaknesses, opportunities and threats of the system from the previous Long Range Transportation Plan were evaluated for continued relevancy.

### *Strengths*

#### **Variety of existing local, state, national, and historical multi-use trails**

RPA 13 has a wide range of trails from local trails such as the Anita Lake trails to larger trails like the Wabash Trace that spans multiple counties and historic trails like the Lewis and Clark trail. All of these trails provide a strong foundation for the region to continue to grow off of.

#### **Several proposed state and national trails that cross the region**

There are multiple state and national trails that are proposed that cross through the region. These include trails such as the American Discovery Trail and the Lewis and Clark Multi-Use Trail.

#### **Trail boards in every county**

Within the past five years, trail boards have been formed within every county in the region. These boards provide a strong foundation and voice to the formation of trails.

### **Regional collaboration and local and large engagement, creating connections across state and county boarders**

Within recent years, there has been a push for more planning and connectivity between counties and even states for trail development. Multiple trail groups have been formed in recent years that include multi-state collaboration such as MINK (Missouri, Iowa, Nebraska and Kansas).

### **Abundance of resource agencies (National Park Service, Golden Hills RC&D, Iowa Natural Heritage Foundation)**

Iowa and RPA 13 are fortunate to have multiple resource agencies to aid them in the process of trail development. Other states do not have these agencies or have fewer of them which can make trail development more challenging.

### *Weakness*

#### **Many unconnected or incomplete trails**

There are many trails missing connections scattered throughout the region. More often than not, these trails fail to make connections to their intended points due to lack of land owners willing to sell their land or grant easements.

#### **Many trails have to share existing network infrastructure with other types of transportation rather than having a dedicated route**

When connections can't be made off road, often times the connections are made via shared roadways. Shared roadways are also utilized because of the appeal of lower costs to construction. These shared networks can be hazardous to those utilizing it as a trail. Roads can be very busy and drivers can be distracted leading to dangerous conditions.

#### **Possible conflicting use and safety issues of routes with having to share road or path infrastructure such as bicycles having to share roads with vehicles**

If proper safety studies aren't completed prior to designating a roadway for a shared use between vehicles and bicycles, it can lead to hazardous conditions ending in injury or fatality.

#### **Minimal local advertisement of trails**

A lack of local advertisement of trails leads to a large number of residents not knowing they exist. These residents then drive farther away to utilize trails that are more recognized instead of the ones that are within their home county.

#### **Funding**

Funding can be difficult to acquire at a local level. Trails are expensive to develop and donations typically won't cover the construction costs in whole. Local funding often must be combined with state and federal

funding to make up the difference. If communities are lacking on state and federal funding, local fundraising can become a burden on locals who have already donated.

### **Difficulty getting new people involved**

Trails groups and boards have discussed the difficulty of succession planning and getting new people involved in trail development within the region. This lack of involvement puts a strain on those already committing time and leaves an uncertainty of what will happen in the future.

### **Lack of paved shoulders**

An overall lack of paved shoulders within the region provides dangerous riding conditions for bicyclists wanting to share the highways with automobiles as not all locations are accessible by trails alone. Riding among cars on the highway greatly increases the risk of accidents between bicyclists and distracted drivers.

### *Opportunities*

#### **Improved quality of life in communities due to increased recreational opportunities**

By providing better connections between the existing trails, the region has the chance to put trails in close proximity to a large number of residents. Nearby trails would increase the likelihood that resident would utilize them, increasing their physical and mental health and overall quality of life.

#### **Increased tourist opportunities and tourism development opportunities**

By having several larger trails and trail connection within the region, the possibility for a tourist draw increases. The Wabash Trace, T-Bone Trail, Lewis and Clark Trail and American Discovery Trail all have the possibility to draw large numbers of users from around the state with the right connections.

#### **Opportunities to create or show scenic routes in the region**

From state parks to the rolling Loess Hills, the region has a range of natural beauty to be experienced. By connecting these places by trails, it would create beautiful scenic routes that would draw in people from around the state.

#### **Development of county boards that can coordinate and plan trails within the region**

The establishment of county trail boards will allow better coordination between counties and the development of countywide trail plans. Increased discussion and planning will lead to better routes spanning throughout the region.

#### **Frontier Iowa Trail (FIT) Network**

The Frontier Iowa Trail (FIT) Network is a multi-county group of trail advocates and planners who actively work throughout Western Iowa to establish trails. This network acts as a catalyst to bring people together to discuss ideas for trail development and connections across county and state lines.

#### **People embracing the fact that trails are an economic driver**

As more trails have been developed within the region and throughout the state, people are beginning to see the positive effects they have on the towns they traverse. A good local example would be the Wabash Trace that travels through eight different towns. People who ride the entire trail often stop in each town to rest, eat and explore often times spending money while they're there.

### **Potential permanent funding through Iowa Water and Land Legacy**

The Iowa Water and Land Legacy established the Natural Resources and Outdoor Recreation Trust Fund in 2010. This trust fund would be used to enhance water quality, productive agricultural soils, wildlife habitats and outdoor recreational opportunities. However, this trust fund would be funded by a sales tax increase of 3/8ths of a cent, which has not yet been passed.

### **Future trail study**

A possible future region wide trail study could aid in increased collaboration between counties while examining resources had by each. Planning on a regional scale would produce better connectivity throughout the region and to surrounding regions.

### *Threats*

#### **Limited funding for trail development**

Grant funding for trail development is highly sought after which makes acquiring these grants very difficult. The high cost of trails and the lack of funding prohibit many towns and counties from developing any new trails.

#### **Declining population**

Small towns throughout the state have been seeing declining populations for decades. These declining populations lower the tax base, lower the fundraising pool and make it difficult to justify the need for a trail.

#### **Reluctance to fund or maintain trail development**

When people see the high price tag that comes with trail development and maintenance, they often times lose interest. It can be difficult to weight the costs to benefits for trail development, especially by those who don't plan on utilizing the trails.

#### **Problems acquiring land from owners to finish and connect trails**

The unwillingness from land owners to sell sections of their land for trail development is a problem experienced throughout the region. Reasons for this unwillingness to sell could be the division of a field or the unwanted people near their property.

#### **Aggressive behavior towards cyclists when having to share routes with vehicles or other means of transportation**

Bicyclists face less than desirable conditions while sharing roadways with vehicles, either from the hazards of cars or the behavior of the drivers. It is not unheard of for motorists to yell, swerve or throw objects at bicyclists riding on roads.

### **Bicyclists not following road rules when not on dedicated paths**

Sometimes dangerous conditions on shared roadways can be created by the bicyclist's negligence and not the motorists. A lack of understanding of road rules for bicyclists can create a great safety concern and put everyone on the road at risk.

### **Second seat to other funding needs**

Funding for trail development can be cut short when the need for money arises in other places such as disaster recovery.

### **Non-trail people**

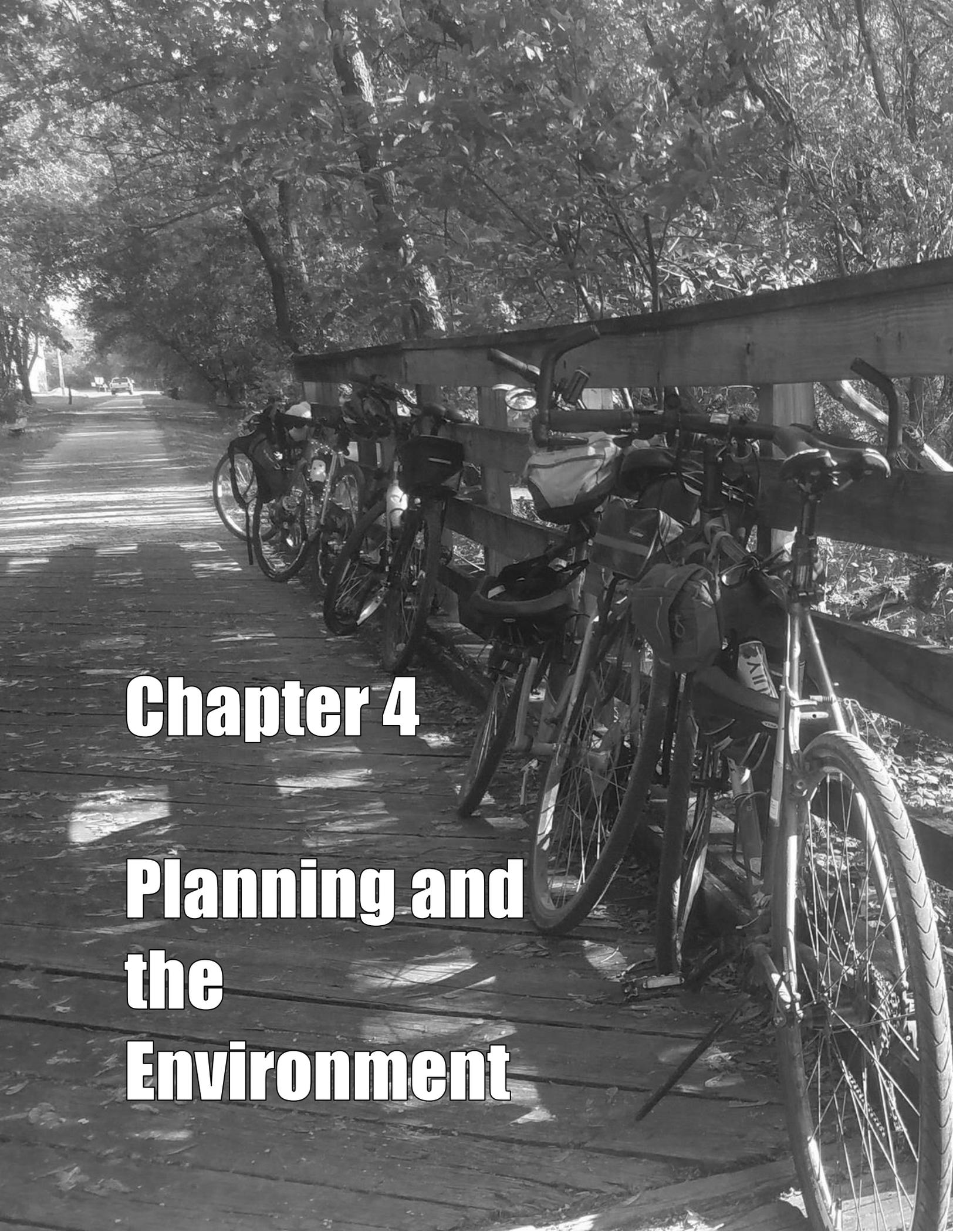
People who are against the development of trails always pose a threat to new development. Non-trail people reduce the number of supporters and the potential donations but they can also influence other people to become non-trail supporters.

### **Landowners lack of desire to have a trail through their land—NIMBY (Not in My Back Yard)**

As discussed previously, landowners can be a threat to trail development if they are unwilling to sell. This unwillingness could be just because they don't want a trail on or near their property.

### **Waterways**

The region has no water transportation facilities located within the region. Freight services can be accessed in the Omaha/Council Bluffs area which is within a one-hour drive. The Missouri River provides access to barge facilities and barge freight services. The majority of water resources located in the region are utilized for potable water supply, wildlife enhancement, recreation, and agriculture.



# **Chapter 4**

# **Planning and the Environment**

## Environmental Conditions

When planning for transportation projects, the effects or potential effects on the natural environment must be taken into account. Avoidance of damage to the environment, natural and cultural resources should be a priority for the region. If avoidance can't be achieved, minimizing any effects should become priority. It will ultimately be up to project sponsors to effectively mitigate any negative impacts.

### *Consultation*

A crucial step in preventing damage to the environment is consultation with various agencies during plan development. Throughout the development of the Long Range Transportation Plan, various maps, data and plans from these agencies were reviewed. Once a draft of the plan was created, the following agencies were contacted and invited to review and provide comments and feedback.

- Iowa Department of Natural Resources
- Iowa Department of Transportation
- Federal Highway Administration
- Federal Transit Administration
- State Historical Society of Iowa
- National Park Service
- Iowa Department of Cultural Affairs
- Cass County Conservation
- Fremont County Conservation
- Montgomery County Conservation
- Page County Conservation
- Golden Hills RC&D
- Cass County Natural Resource Conservation Service (NRCS)
- Fremont County NRCS
- Montgomery County NRCS
- Page County NRCS
- Hitchcock House
- Cass County Museum
- Fremont County Museum
- Montgomery County Museum
- Nodaway Valley Museum
- Red Oak Preservation Commission

### *Threatened and Endangered Species*

According to the Iowa Department of Natural Resources there are 63 unique species of birds, fish, insects, mammals, plants and reptiles that are classified as either threatened, endangered or of special concern located within the RPA 13 region. Of these, there are eleven classified as endangered under state status and two, the least tern and pallid sturgeon, listed under the federal status. A summarized listing of threatened, endangered and special concern species in the RPA 13 region is shown in figure 35 and a complete list is shown in the appendix.

**Figure 40: Table –Threatened and Endangered Species**

Type	Threatened	Endangered	Special Concern
Birds	2	5	2
Fish		1	
Insects			12
Mammals	2	1	
Plants (Dicots)	1	2	15
Plants (Monocots)	2		9
Plants (Pteridophytes)			1
Reptiles	4	2	2

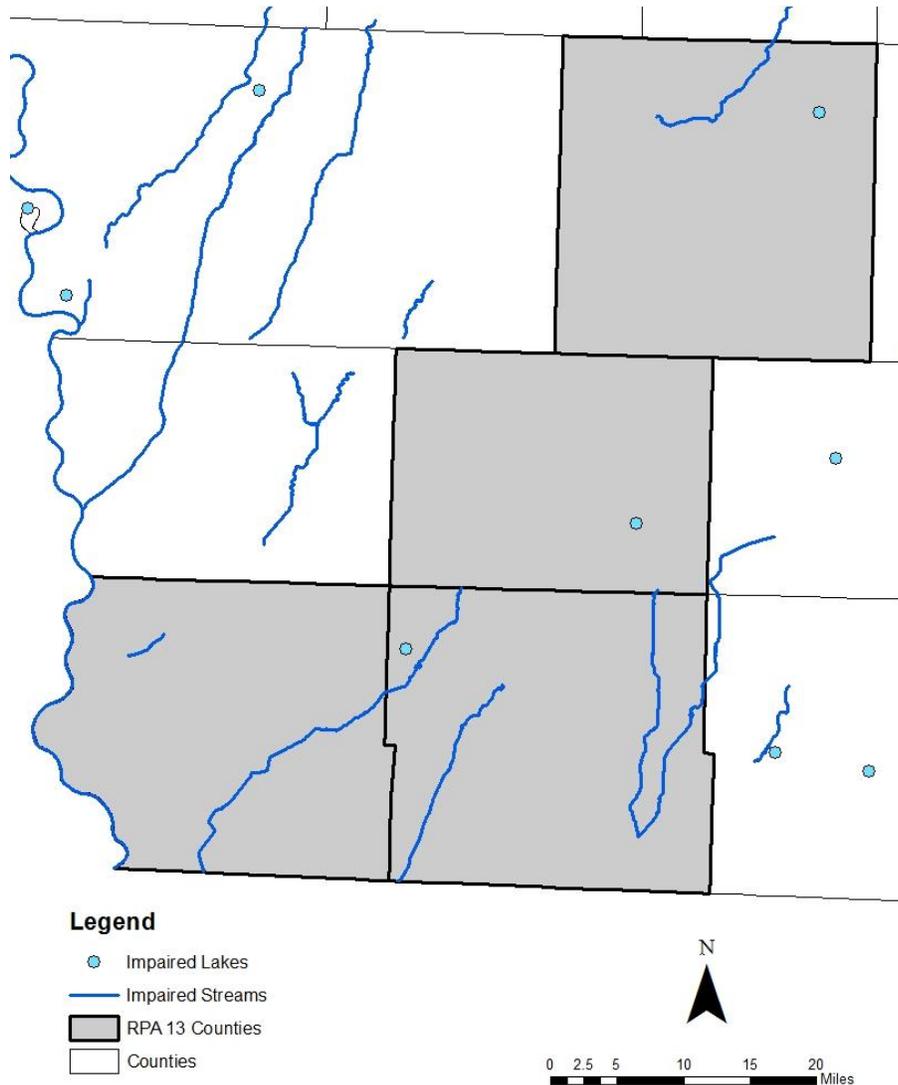
**Source:** Iowa Department of Natural Resources

These species are associated with several natural habitats, including rivers and stream corridors, marshes and wetlands, wooded areas, and grassland and sand prairies as well as one specific species, the Barn Owl, finding residence in abandoned buildings. Loss of habitat, human disturbance of nesting areas and/or loss of prey habitat are common, but not limited to, causes that adversely affect the populations of many of these species.

*Impaired Waters, Wetlands and Floodplains*

April 1<sup>st</sup> of every even numbered year, States are required to submit a list of waters that will not meet the state water quality standards as set by the Environmental Protection Agency (EPA). These impaired bodies of water are compiled and put on a list known as the “303d list”. Once placed on this list, a water quality improvement plan must be developed for each body of water outlining the water quality problems and how to remedy said problems. According to the most recent list compiled in 2016 by the Iowa DNR, Iowa had 608 impaired bodies of water of which, three lakes and seven streams or stream segments are located within RPA 13.

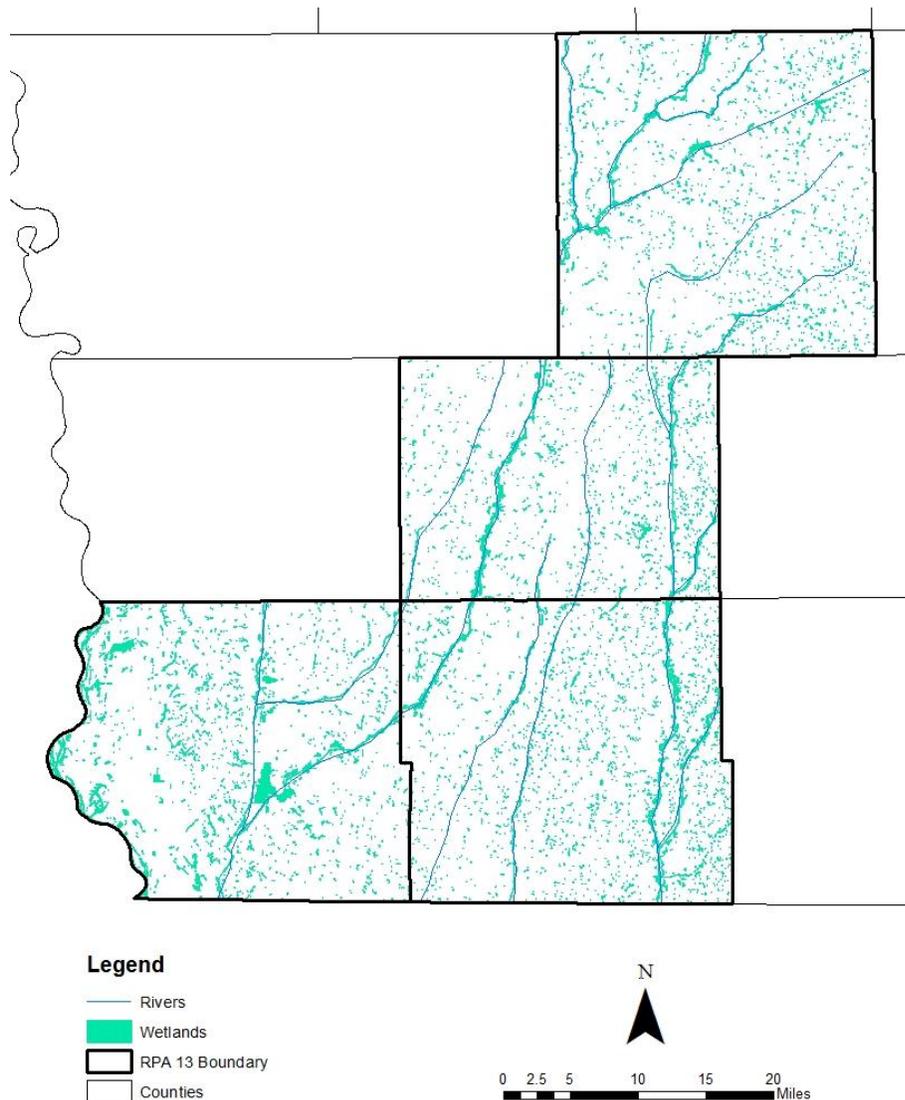
**Figure 41: Map –Impaired Waters, 2016**



**Source:** Iowa Department of Natural Resources

Wetlands are areas where water covers the soil all or part of the time creating a swamp or marsh like area. Wetlands can aid in flood control, replenishing groundwater, filtering drinking water and providing habitat for a variety of plants, fish and wildlife. Since the settlement and development of the United States began, wetlands have been disappearing as they are converted into a more developable land. In more recent years, measures have been enacted to preserve, protect and restore wetlands as people have realized the benefits of wetlands.

**Figure 42: Map –Wetlands**



**Source:** Iowa Department of Natural Resources

With the Missouri River running along the western boarder of the RPA and several rivers passing through the region, flooding and floodplain management are an area for concern. Approximately 80% of the cities within the region have a river or part of the 100 year floodplain within their boundaries which makes proper planning critical to mitigating the risk of flooding. In March of 2019, major flooding due to heavy spring rains and melting snow swept the region hitting the area near the Missouri River the hardest. The rushing flood waters damaged houses displacing hundreds of people, scattered debris across the region and destroyed or critically damaged several miles of roads. I-29, IA 333, IA 2, US 275 and US 34 all experienced severe damage that cased closures between mid-March and late May and again from early June until July. These closures forced detours which put an increased strain on US 59, US 71, I-235 and numerous county roads. Countless county highways and secondary roads also faced extreme damage

including total destruction of several roads. All of the damage from these floods put a strain on residents and on county and DOT budgets for road repairs and construction.



IA 333 near I-29



I-29 between US 34 and Hamburg



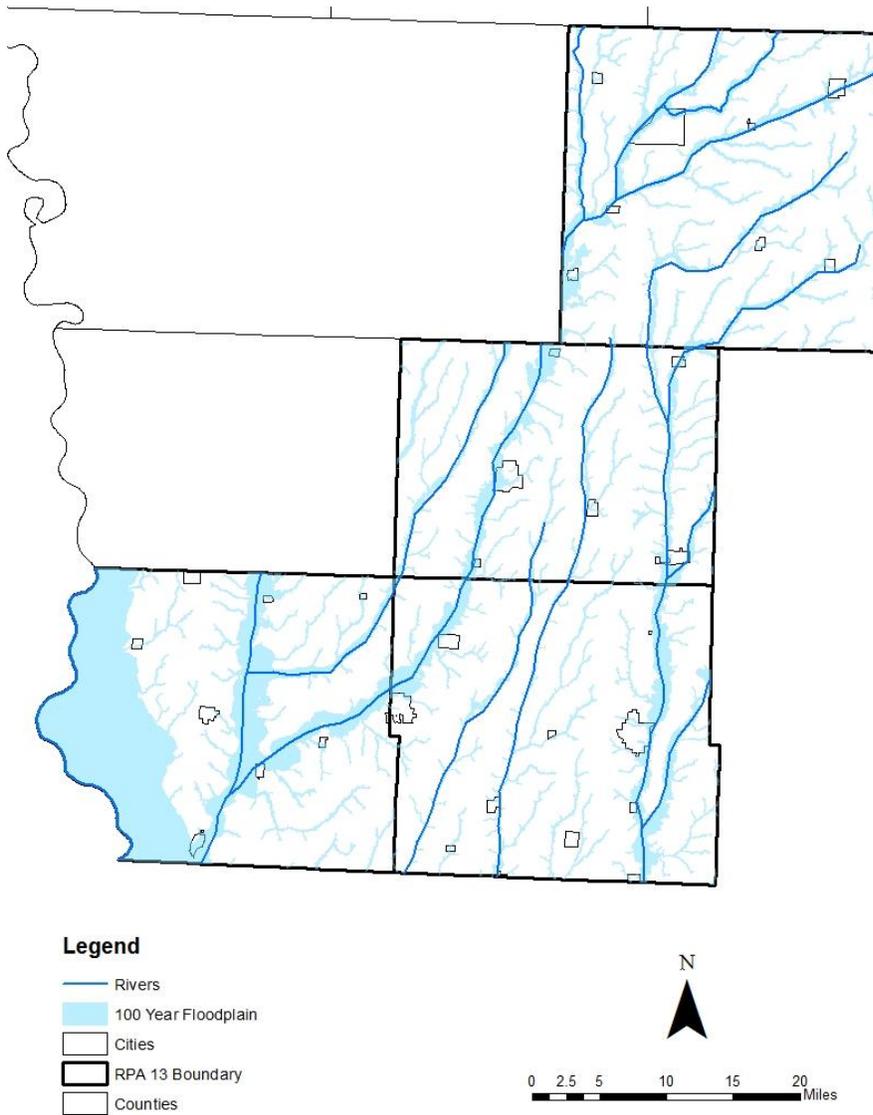
I-29 between US 34 and IA 2



US 34 westbound near Missouri bridge

Source: Images from [www.floods2019.gov](http://www.floods2019.gov)

**Figure 43: Map –100 Year Floodplain**



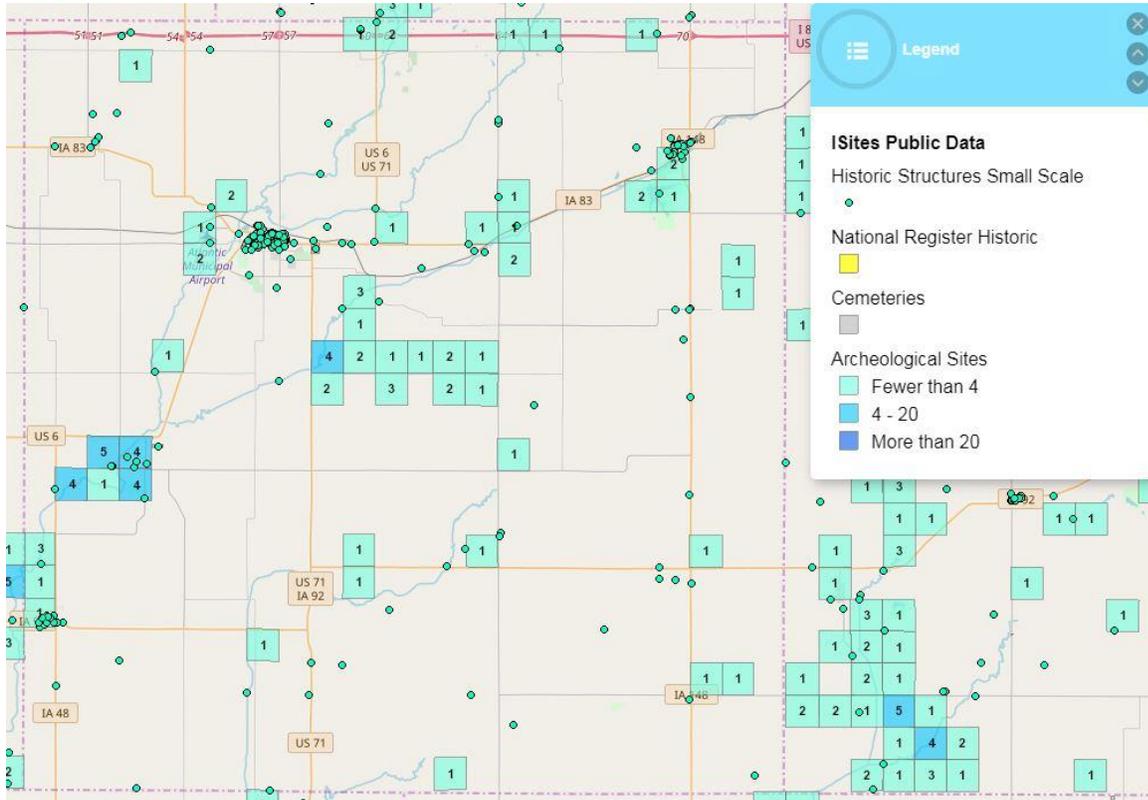
**Source:** FEMA, Iowa Department of Natural Resources

### *Cultural and Historical Sites*

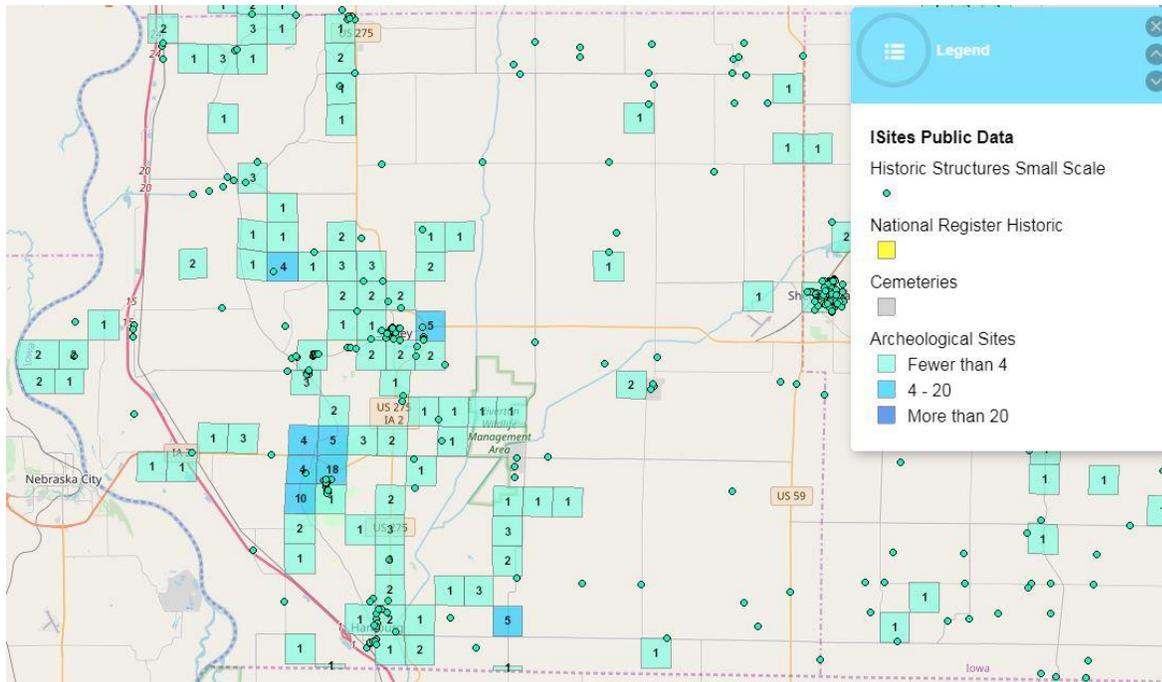
Cultural and historical sites, especially those located below ground, can often go unnoticed to the public. These sites can consist of cemeteries, historic bridges and buildings, and archeological sites just to name a few. Sites like these should be considered very valuable to the history and future of the region and great precautions should be used in order to preserve them. The following maps show locations of historic sites, cemeteries and general locations for archeological sites.

**Figure 44 A-D: Map –Historic and Cultural Site Locations**

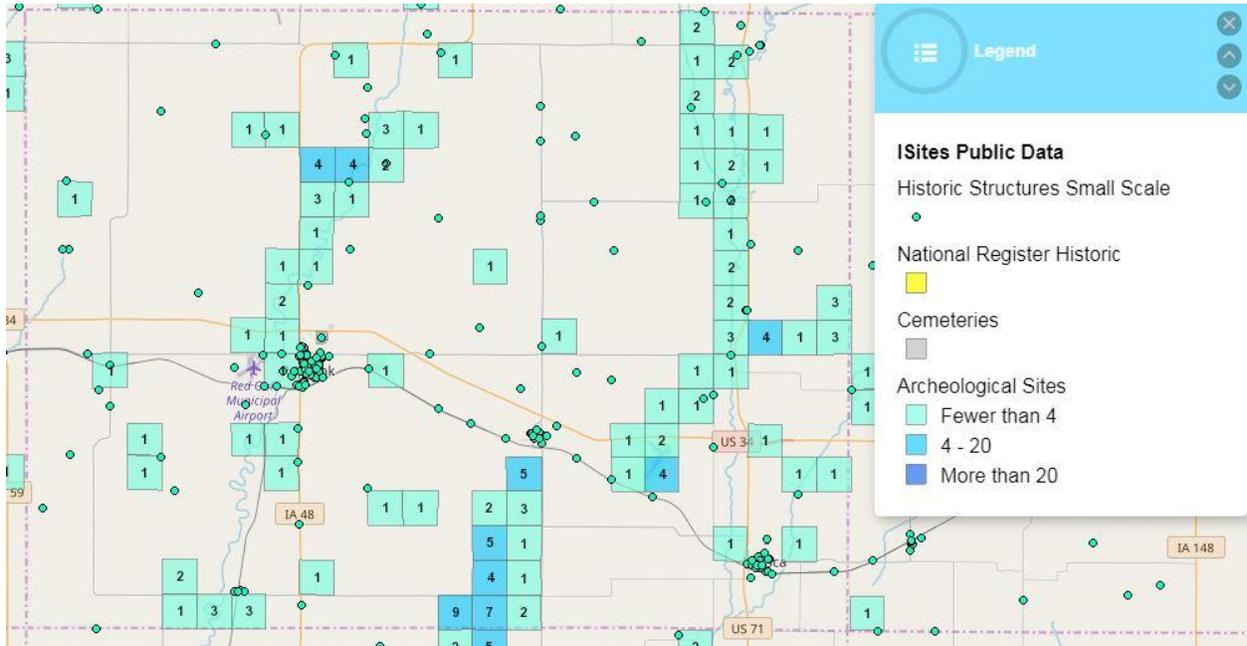
**Figure 44 A: Cass County**



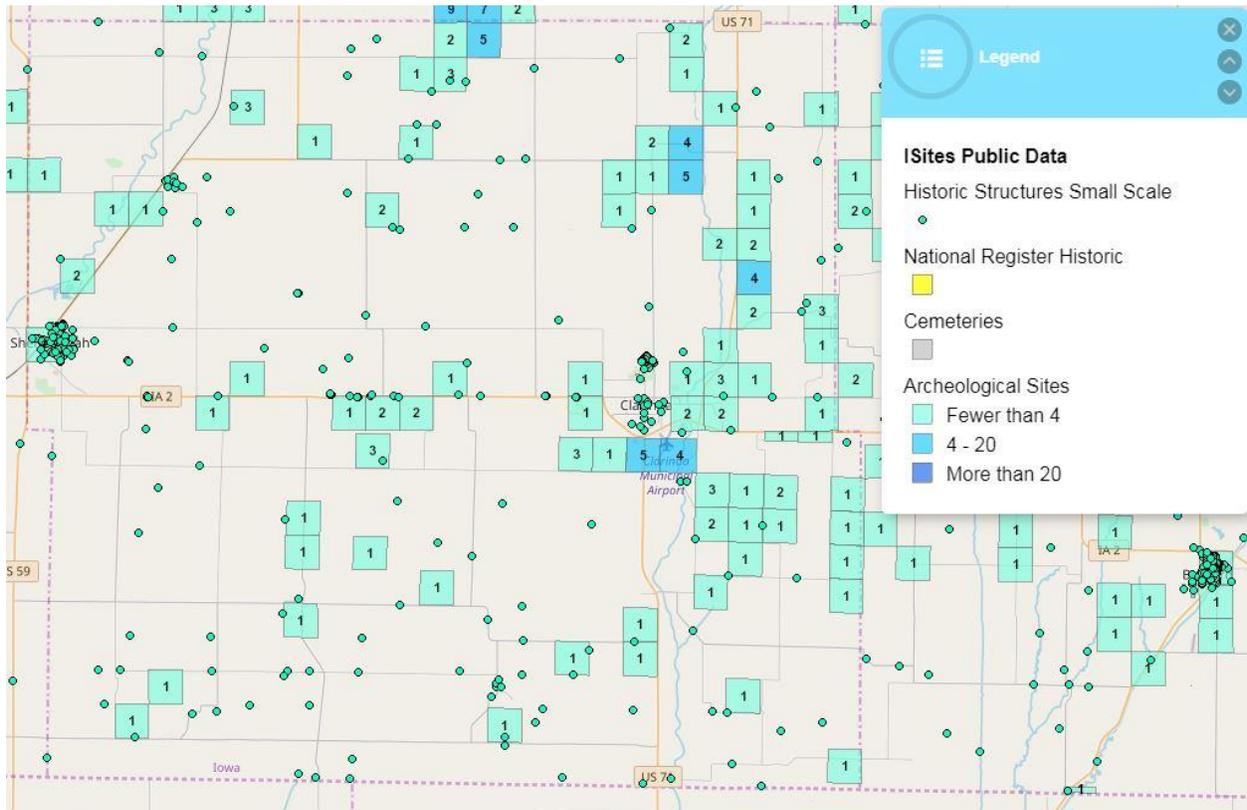
**Figure 44 B: Fremont County**



**Figure 44 C: Montgomery County**



**Figure 44 D: Page County**



**Source:** Office of the State Archaeologist I-Sites Public Data Web Map

### *Mitigation Practices*

Avoidance of adverse impacts to the environment is the priority for transportation projects within the region. It is important for project managers to be aware of potential hazards early in the planning process to be able to make adjustments to the project accordingly. In cases where avoidance isn't an option, mitigation practices should be used to lessen any negative effects the project will or could possibly have on the environment. The following are lists of potential mitigation practices that could be utilized by project managers (this is not an exhaustive list):

### *Threatened/Endangered Species*

- Time of year restrictions
- Habitat enhancement
- Habitat protection
- Restoration of damaged habitat
- Buffer areas around habitat
- Relocation of species
- Species fact sheets
- Prevent fragmenting of habitat
- Wildlife crossings

### *Public Areas/Parks/Historical and Cultural Sites*

- Landscaping for historic properties
- Markers or signs for historic sites
- Educational activities or interactive displays
- Photo documentation
- Relocation of historic buildings
- Construction of bicycle/pedestrian trails
- Expansions of park facilities
- Replacement park ground (if avoidance of damage not possible)

### *Wetlands and Water Resources*

- Restore and preserve wetlands
- Vegetative buffers
- Erosion control measures
- Restore streams
- Bridge sensitive areas instead of laying pavement directly on the ground
- Aquatic habitat improvements
- Perpendicular stream and buffer crossings instead of lateral encroachments

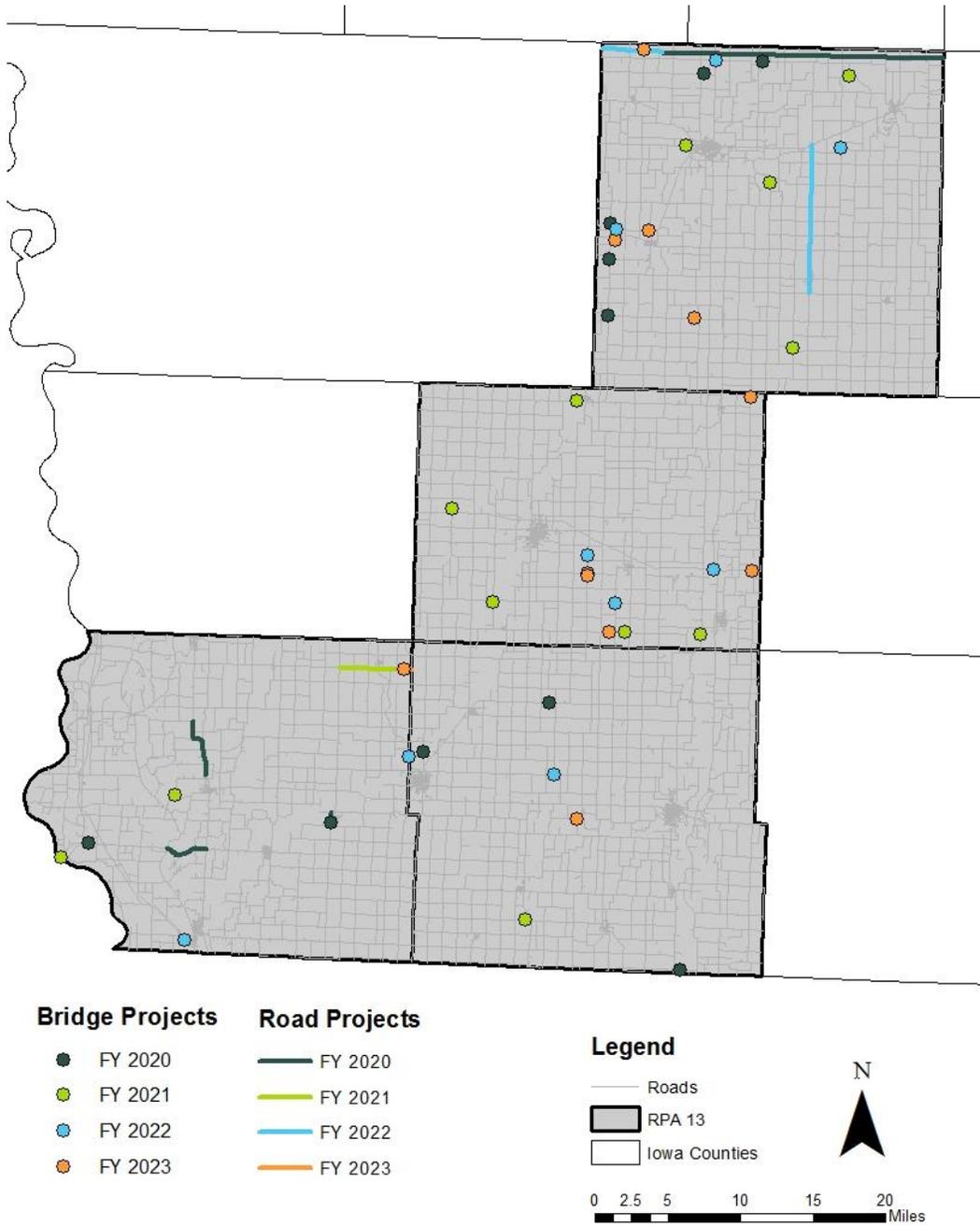
### *Other*

- Noise barriers
- Plant trees to reduce noise
- Transportation emission reduction measures
- Residential and commercial relocation when necessary

## **Planned Projects**

For the RPA 13 Region there are a number of transportation projects that are currently planned to take place. The map included below show future road, interstate and bridge projects for the fiscal years of 2020 through 2023 for each of the four counties in the region. In total there are 46 future bridge projects between FY 2020 and 2023 in the RPA 13 region with some locations having multiple planned projects. Of the major road projects in the region; Interstate 80, running through Cass County, and Interstate 29, running through Fremont County, both have multi-year projects planned. Planned projects are to maintain existing roads and bridges.

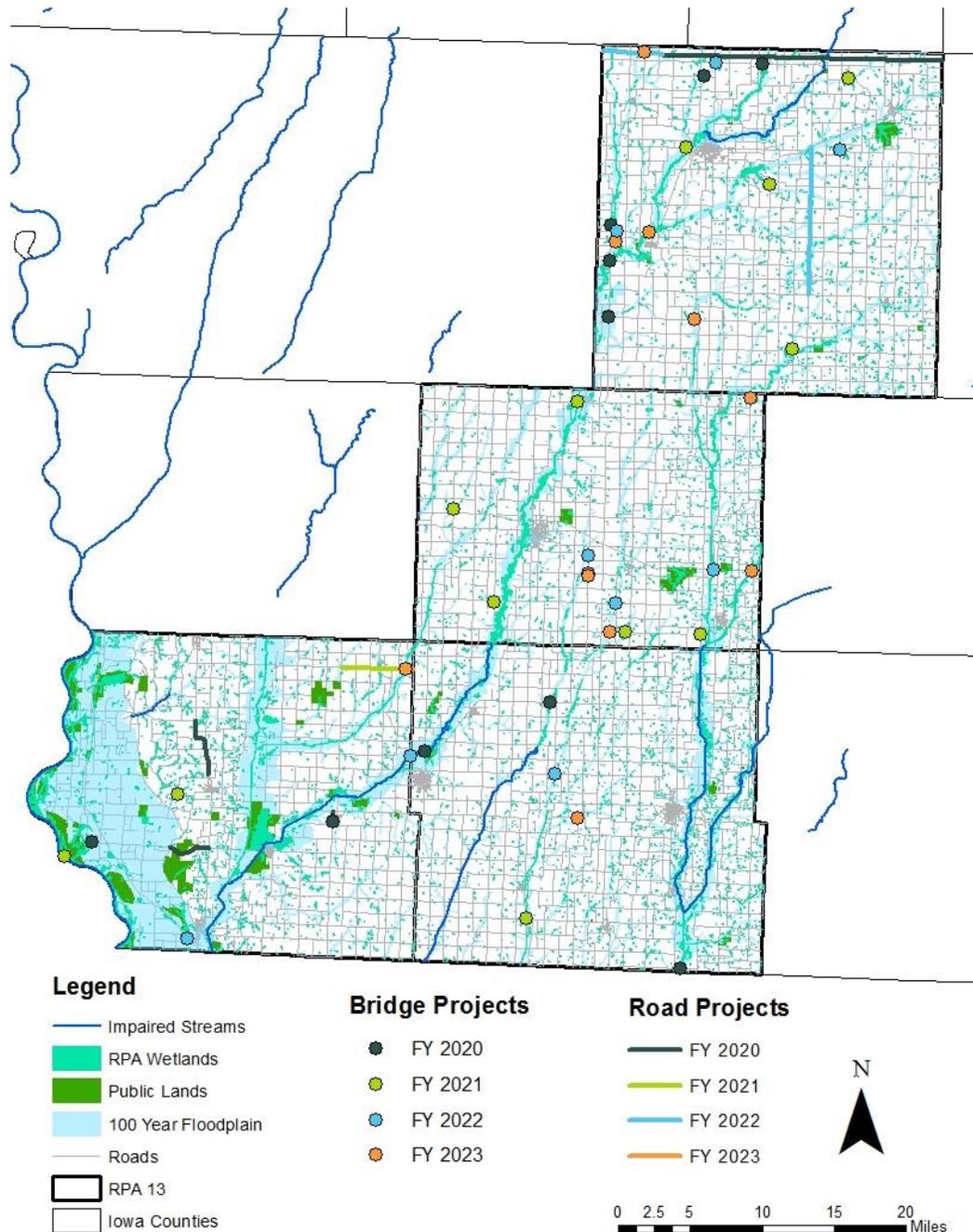
**Figure 45: Map – Planned Future Projects (FY 2020-2023)**



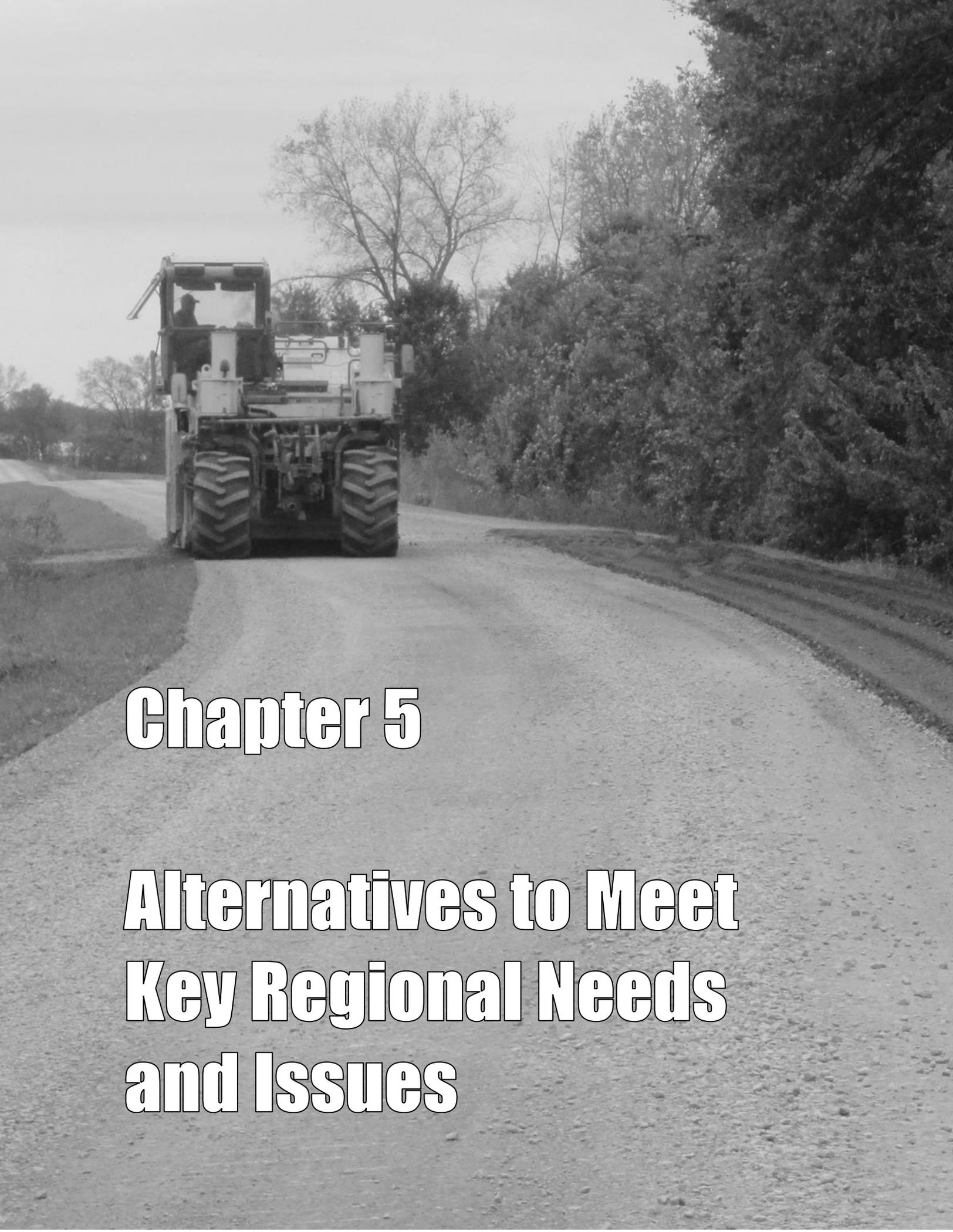
**Source:** Iowa Department of Transportation

In order to protect the region’s natural resources, it is imperative that project sponsors thoroughly examine the project area and consider alternatives. If this step is not done properly, critical habitats could be destroyed, wetlands ruined or already impaired waters compromised even more. These actions could also directly affect the residents of the region by compromising safe drinking water or destroying recreational areas.

**Figure 46: Map – Planned Future Projects (FY 2020-2023) with Natural Resource Areas**



**Source:** Iowa Department of Transportation, Iowa Department of Natural Resources, FEMA



## **Chapter 5**

# **Alternatives to Meet Key Regional Needs and Issues**

Exploring alternatives or expanding on infrastructure is imperative to meeting the regional needs and issues that will support the activities within the communities. Alternative methods should be explored to not only maintain critical portions of the existing network, but to promote other modes of transportation that may be useful to the region. These may spur economic development, create better living conditions or improve safety within the region. The following chapter discusses alternatives currently in use or currently being explored by leaders within the region.

## **Roads**

Roads and bridges in the region are the backbone to the region's transportation infrastructure. These roads are highly traveled which creates wear and tear on the network. Preserving the network of roadways through maintenance and rehabilitation of roads and bridges is vital to supporting the activities of the region. Due to rising costs to maintain and rehabilitate roads and bridges and due to the limited funding for such activities, alternative approaches in pavement preservation, bridge replacement as well as road network planning need to be addressed to make use of what funding is available. Engineers can work with research institutions to determine the best practices of building and maintaining roadways in the region. Transportation planning agencies can work with local, state and federal governments on finding funding to continue development of the network. Lastly cooperation between local governments, transportation agencies, engineers and stakeholders can prioritize projects by route use, project costs and concerns for safety along various routes. Using best practices in network infrastructure creation to accommodate future traffic and finding cheaper alternatives while prioritizing projects will make use of available funds to the fullest extent.

While maintaining and rehabilitating the current infrastructure is vital in maintaining safety of the existing road network, safety improvement projects can be just as important in enhancing safety on roadways. These can be individual projects that upgrade existing infrastructure that is prone to accidents or creates unsafe roadway conditions, or be coupled with existing maintenance or expansion projects to enhance safety along these networks. Improvement designs may include, but are not limited to rumble strips/stripes, safety edges, chevrons or other warning signage.

## **Transit**

The regional public transportation system has seen an overall increase in revenues which has resulted in an ability to expand its services and reach more people utilizing or requiring these services. This has resulted in an increase in ridership, thus providing greater mobility within the region. This shows the need for public transportation within the RPA and the need to maintain the existing fleet and services provided by the Southwest Iowa Transit Agency. To maintain existing services, State and Federal transit funds are imperative to the agencies operations. Decreased funding and increased cost are both issues that could interrupt transit services in the region. The ability to expand the regional public transportation system would provide more diversity within the region's transportation network and help maintain the mobility of an aging population.

## **Carpool/Work Route**

Carpooling represents only a small fraction (11% according to 2013-2017 American Community Survey/US Census data) of commuting chosen in the RPA. SWITA operates a formal system of carpooling through its services and contracts with local businesses. Carpooling has a number of benefits due to less vehicles on the road including less wear on infrastructure, savings in fuel costs, less pollution

caused by motor vehicles, among many others. Despite these benefits, the reason why many people continue to travel in personal or private vehicles is the mobility, convenience and independence that driving your own vehicle offers. Promotion of the benefits of carpooling could encourage people to use this as an alternative in transportation.

Interest from large employers in formal carpooling or work routes is growing. SWITA currently has several designated work routes in place transporting employees to their place of employment every day. These work routes include Atlantic to Shelby and Atlantic to Red Oak within the RPA and Omaha/Council Bluffs to Harlan and Omaha/Council Bluffs to Oakland outside of the RPA. As employers and employees realize the benefits of utilizing this service, it is likely that more work routes will develop throughout the region and surrounding areas.

### **Trails and Shared Lanes/Paths**

Trails are currently being expanded upon in many of the communities as a source of recreational transportation. Currently many trails are not completely developed and are fragmented due to this. Some planned paths have encountered issues with obtaining land to complete routes and trails and are currently exploring alternatives. There are, however, many trail systems that are completed or in the process of being completed. These trails provide alternative recreational activities that promote healthy lifestyles and can be connected to parks and historical locations to promote use of these other facilities. To continue creating an interconnected trail system, planning boards must work together in planning the development of new trails. Currently all counties within the region, as well as a number of counties surrounding RPA 13 have trail boards that are promoting and developing efforts to maintain and create recreational trail systems within the region. The continued development of these trails will help in promoting the recreational opportunities within the RPA.

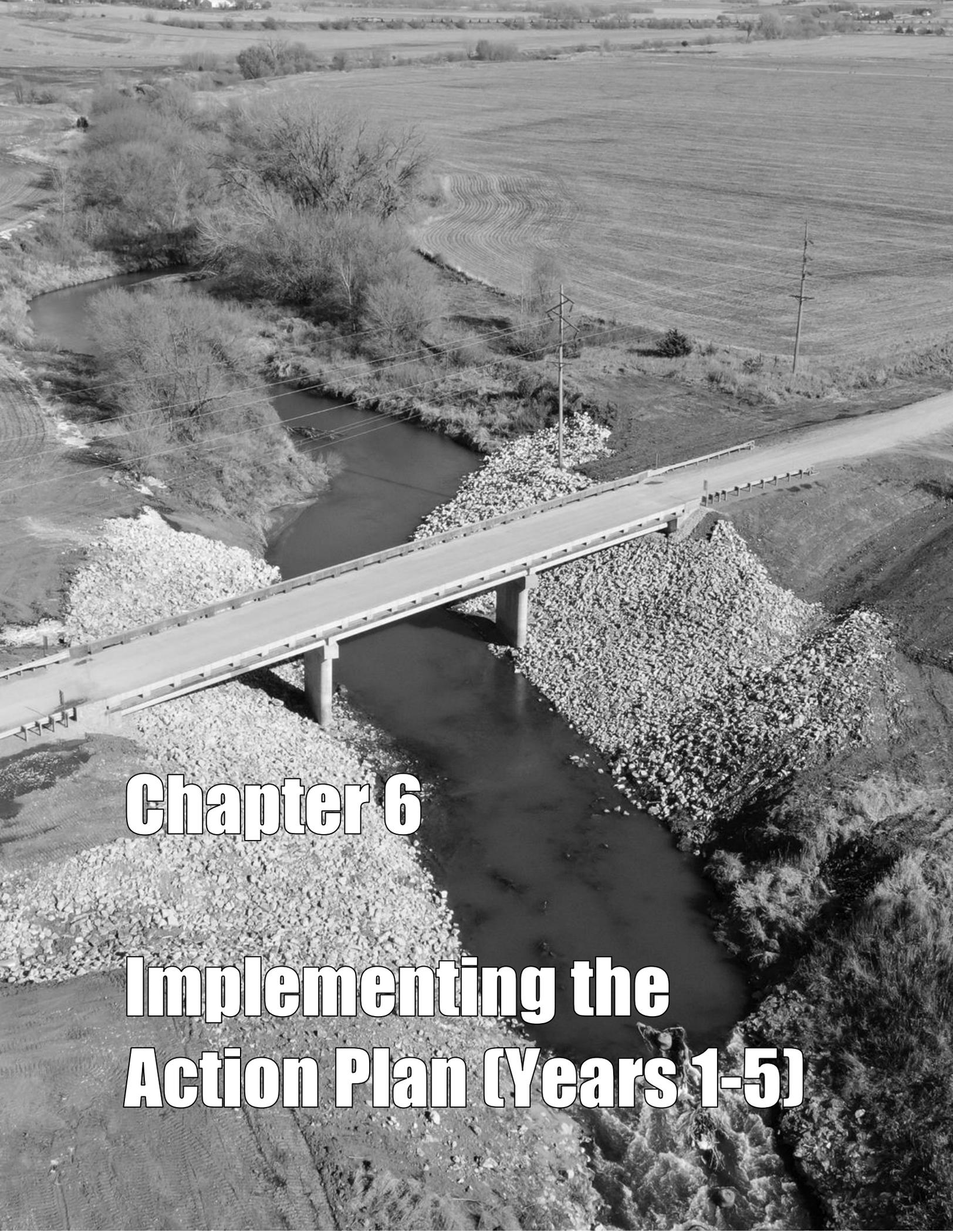
Aside from dedicated trails, options for paved shoulders, bicycle lanes/shared lanes along city streets are alternatives to either connect existing trails and/or promote cycling or walking within the communities. There are a few existing shared lanes and paths within the region, which shows that the alternative is viable in the RPA. One key positive aspect to developing shared lanes and paths is that because they share existing infrastructure, there is no need to acquire land, which can often hold up development of dedicated trails systems. The potential for these types of trails or paths are that they can be incorporated into existing infrastructure which may reduce costs and construction time. But because bicycling and walking from place to place are viewed as recreational activities more so than a necessity for day to day activities in the region and because they are often less desirable in comparison to dedicated trails for those seeking recreational activities, development of these paths may be limited. Dedicated trails provide a safe and relaxing environment away from other modes of transportation. They also provide access to unique areas that other modes of transportation may not be allowed. These types of shared routes are most useful in larger urban areas where bicycling is more often used as a means of transportation to commute to work or school or as a short connecting route between two larger dedicated trail systems.

### **Finding New Alternatives**

Finding alternatives of transportation may not have to solely rely on creating new infrastructure but advertisement of existing transportation. Of the workforce in the RPA region, driving alone is the most common way to commute by a large margin with over 16,913 people doing so. The second popular is carpooling at 2,071. Advertising public transit as a means to run errands and get to work, promoting

bicycle riding during the warmer months and providing safe routes for pedestrians and cyclists are all possible alternatives to those living in the urban areas. Working with local businesses and organizations for input to guide local transportation is needed in utilizing existing transportation infrastructure. Businesses and local transit officials and local trail/bicycle groups could partner together to promote alternative transportation by providing incentives for those utilizing alternative methods or improved infrastructure to support those methods.

Other alternatives not listed here may be explored by communities and organizations as the need arises. They may find a need to develop or expand an existing mode of transportation either when new community or business activity is created, when existing infrastructure fails to provide for the organizations needs or a more efficient or effective way is discovered in meeting the needs. New technologies may be developed that could supplement or replace existing methods of transportation in the region.



# Chapter 6

# Implementing the Action Plan (Years 1-5)

The Action Plan contains a list of future projects to meet the needs and issues described earlier in the plan. Included are detailed projects proposed for the first five years of the 20-year Long Range Transportation Plan. Projects listed were taken from the Statewide Transportation Improvement Program report and the Iowa Transportation Improvement Program report, both released by the Iowa Department of Transportation. The Statewide TIP report breaks down the highway and road projects by RPA and MPO, though may not include all projects, while the Iowa Transportation TIP report includes projects for all modes of transportation. Projected costs and funding sources are included with the project proposal descriptions.

### **State Transportation Improvement Program**

The State Transportation Improvement Program is developed annually by the Iowa Department of Transportation to provide the Federal Highway Administration and Federal Transit Administration a listing of all projects that are candidates for federal aid. The State Transportation Improvement Program may not include all state roadway improvement projects but includes all federal aid projects.

### **Iowa Transportation Improvement Program**

The Iowa Transportation Improvement Program, also known as the Five Year Program, is published by the Iowa Department of Transportation to inform the public of planned investments in our state's transportation system. This document describes planned investments in Iowa's multimodal transportation system including aviation, transit, railroads, trails, and highways. The Iowa Transportation Improvement Program encourages and assists in the development, preservation, maintenance, improvement and efficient use of all transportation systems.

**Figure 47: Table – RPA 13 Planned Projects (FY 2020-2024)**

Sponsor	County	Funding Program	Location	Work Type	Activity Cost (\$ in Thousands)				
					FY 20	FY 21	FY 22	FY 23	FY 24
Cass CRD	Cass	Bridge Swap	On Indian Creek St, from White Pole Rd North 0.4 Miles, at S5 T75 R37	Bridge Replacement	600				
Cass CRD	Cass	Bridge Swap	On Olive Street (N-16), Over Creek, from Chicago Road North 1/2 Miles, on WLINE S9 T77 R36	Bridge Replacement	700				
Cass CRD	Cass	Bridge Swap	On 660th Street, From Jackson Rd South 3/8 Miles, at S19 T76 R35	Bridge Replacement		600			
Cass CRD	Cass	Bridge Swap	On Highland Road (G-30), Over Indian Creek, from 555th St West 1/2 Miles, at S5 T76 R37	Bridge Replacement		1,200			
Cass CRD	Cass	Bridge Swap	On Crooked Creek Road, Over Troublesome Creek, from Boston Road South 0.9 Miles to Troublesome Creek, in S12 T77 R35	Bridge Replacement		700			
Cass CRD	Cass	Bridge Swap	On 680th Street, Over West Nodaway River, from Victoria Road North 0.2 Miles, on WLINE S16 T74 R35	Bridge Replacement		700			
Cass CRD	Cass	Bridge Swap	On 710th Street, Over Creek, on WLINE S1 T76N R35W	Bridge Replacement			600		

Cass CRD	Cass	Bridge Swap	On Boston Road, Ovr Creek, from Olive Street East 0.1 Miles, on NLINE S9 T77 R36	Bridge Rehabilitation			600		
Cass CRD	Cass	Bridge Swap	On Nishna Valley Road, Over Indian Creek, from Hwy 48 West 1/2 Miles, at S8 T75 R37	Bridge Replacement				640	
Fremont CRD	Fremont	Bridge Swap	260 Ave over Cooper Creek	Bridge Replacement		450			
Fremont CRD	Fremont	Bridge Swap	J18 over Walnut Creek	Bridge Replacement				900	
Montgomery CRD	Montgomery	Bridge Swap	H20 Over Seven Mile Creek	Bridge Replacement	835				
Montgomery CRD	Montgomery	Bridge Swap	On H54 over tributary to Tarkio Creek, on NLINE S33 T71 R37	Bridge Replacement		400			
Montgomery CRD	Montgomery	Bridge Swap	On M41 (Evergreen Ave), over Tributary to Nishnabotna River, at S1/4 S25 T71 R39	Culvert Replacement		325			
Montgomery CRD	Montgomery	Bridge Swap	H46 over Tarkio Creek	Bridge Replacement			660		
Montgomery CRD	Montgomery	Bridge Swap	On L Avenue (M59), Over BNSF RR, on WLINE S31 T72 R37	Bridge Replacement			1,025		
Montgomery CRD	Montgomery	Bridge Swap	On W Avenue, over Tributary to Nodaway River, from Cass Co line south 0.3 Miles, on WLINE S1 T73 R36	Bridge Replacement				500	

Montgomery CRD	Montgomery	Bridge Swap	On 230th Street (H42), Over Trib. To Little Tarkio Creek, from L Avenue East 0.1 miles, on NLINE S7 T71 R37	Bridge Replacement				320	
Montgomery CRD	Montgomery	Bridge Swap	On L Avenue, Over Trib. To Little Tarkio Creek, from 230th St South 0.1 Miles, on WLINE S7 T71 R37	Bridge Replacement				320	
Montgomery CRD	Montgomery	Bridge Swap	On H54, over Tarkio Creek, on NLINE S32 T71 R37	Bridge Replacement				700	
Page CRD	Page	Bridge Swap	J-20: Over West Tarkio Creek	Bridge Replacement	600				
Page CRD	Page	Bridge Swap	On A Avenue, Over East Nishnabotna River, Sec 8, T 69N, R 39 W	Bridge Replacement	2,500				
Page CRD	Page	Bridge Swap	On West main Street in Braddyville, Over Tributary of Nodaway River, in S36 T67 R37	Bridge Replacement	300				
Page CRD	Page	Bridge Swap	On 290th St, Over Middle Tarkio Creek, in S14 T67 R39	Bridge Replacement		400			
Page CRD	Page	Bridge Swap	On 190th St (M56), Over Middle Tarkio River, in S23 T69 R38	Bridge Replacement			1,000		
Page CRD	Page	Bridge Swap	On L Ave, Over Snake Creek in S31 T69 R37 and also removal on 220th St over Snake Creek in S2 T68 R38	Bridge Replacement, Grading					
Cass CRD	Page	Swap STBG	On 690th Street, from Iowa HWY 92 North 10.2 Miles to Iowa HWY 83	Pavement Rehab			2,250		

Fremont CRD	Fremont	Swap STBG	On J18, from M16 East 4.0 Miles to 410th Ave	Pavement Rehab		1,400			
Fremont CRD	Fremont	Swap STBG	On J18, from 410th Ave. East 1.043 Miles to U.S Hwy 59, S7 T70 R39	Pave				800	
Page CRD	Page	Swap STBG	On O Avenue (M63), from IA 2 north 11 miles to Page/Montgomery County Line	Pavement Rehab			2,750		
DOT-D04-RPA13	Cass	NHPP	IA 92: SEVENMILE CREEK 1.7 MI W OF W JCT US 71	Bridge Replacement				1,500	
DOT-D04-RPA13	Fremont	NHPP	IA 2: MISSOURI RIVER OVERFLOW EAST PF MISSOURI RIVER	Grade and Pave, Bridge Replacement	30,000				
DOT-D04-RPA13	Page	NHPP	US 59: EAST NISHNABOTNA 1.0 MI N OF IA 48	Bridge Replacement			4,708		
RPA-13	Region Wide	STBG	SW IA 4/SWIPCO: RPA 13 TRANSPORTATION PLANNING	Trans Planning	10	10	10	10	
DOT-D04-RPA13	Fremont	STBG	US 275: SIDNEY TO N OF CO RD J24	Pavement Rehab/Widen	3,512				
Farragut	Fremont	TAP	New Orleans Ave to Manti Road	Pave, Bridge Replacement, Culvert Replacement	100				
Shenandoah	Page	TAP	In the City of Shenandoah, on Ferguson Ave. Ped/Bike Structures	Ped/Bike Structures	118				
Cass CRD	Cass	CHBP	On Boston Road, Over small creek, from Hwy 71 east 1.0, on NLINE S7 T77 R35	Bridge Replacement	600				

Fremont CRD	Fremont	CHBP	J40: Bridge Replacement	Bridge Replacement	700				
Montgomery CRD	Montgomery	CHBP	On N18 (T Ave), Under Tributary to West Nodawat River, from 270th Street North 0.1 Miles, at NW 1/4 Corner S33 T71 R36	Culvert Replacement		300			
Montgomery CRD	Montgomery	CHBP	On M37, over Crabapple Creek, on Ctr S16 T72 R39	Bridge Replacement		700			
DOT-D04-RPA13	Cass	PRF	I-80: 1.4 MI W of CO RD N28 to 0.6 MI E of CO RD N28 at VAR LOC	Grade and Pave	1,947				
DOT-D04-RPA13	Cass	PRF	On I-80 0.7 MI E of IA 173 to 0.7 MI W of US 71 (WB) and 0.7 MI W of US 71 to Adair Co (EB)	Pavement planning	1,010				
DOT-D04-RPA13	Cass	PRF	IA 92: Stream 0.9 MI W of IA 148	Right of Way, Rip Rap	33				
DOT-D04-RPA13	Cass	PRF	IA 48: Baughmans Creek 0.2 MI S of IA 92 in Griswold	Bridge Deck Overlay	163				
DOT-D04-RPA13	Cass	PRF	IA 48: East Nishnabotna River 2.0 MI S of US 6	Bridge Deck Overlay	534				
DOT-D04-RPA13	Cass	PRF	US 6: Indian Creek 0.4 MI E of IA 48	Bridge Deck Overlay			600		
DOT-D04-RPA13	Cass	PRF	IA 83: East Nishnabotna River 1.1 MI W of W JCT US 6	Bridge Deck Overlay			290		
DOT-D04-RPA13	Cass	PRF	I-80: Pottawattamie Co to E of IA 173 (WB)	Pavement Rehab			1,401		
DOT-D04-RPA13	Cass	PRF	US 6: East Nishnabotna River 2.6 MI E of IA 48	Bridge Deck Overlay				720	

DOT-D04-RPA13	Cass	PRF	I-80: 570th St 2.0 MI W of IA 173 (EB & WB)	Grade and Pave				1,500	
DOT-D04-RPA13	Fremont	PRF	IA 2: Horse Creek Ditch 1.0 MI W of I-29 (EB & WB)	Grading	88				
DOT-D04-RPA13	Fremont	PRF	IA 2: Co Rd L44 to US 275	Pavement Rehab	1,253				
DOT-D04-RPA13	Fremont	PRF	IA 2: Missouri River E of Nebraska City (State share)	Bridge Painting	21	21	21	21	
DOT-D04-RPA13	Fremont	PRF	IA 2: Missouri River E of Nebraska City (State share)	Bridge Deck Overlay		799			
DOT-D04-RPA13	Fremont	PRF	I-29: Main Ditch #6 0.4 MI S of IA 133 (NB & SB)	Bridge Deck Overlay			960		
DOT-D04-RPA13	Fremont	PRF	I-29: Missouri to 1.0 MI S of IA 2 (NB)	Pavement Rehab			2,226		
DOT-D04-RPA13	Fremont	PRF	I-29: 1.5 MI N of Co Rd L31 to 1.0 MI N of Co Rd J18 (SB)	Pavement Rehab				1,047	
DOT-D04-RPA13	Montgomery	PRF	IA 48: E Nishnabotna River 1.9 MI S of Co Rd H14	Bridge Deck Overlay		490			
DOT-D04-RPA13	Montgomery	PRF	US 34: West Nodaway River 0.3 MI W of US 71 (EB)	Bridge Deck Overlay			610		
DOT-D04-RPA13	Montgomery	PRF	US 34: Middle Nodaway River 3.0 MI E of US 71	Bridge Deck Overlay				550	
Farragut	Fremont	Fed Rec	Admiral Trail	Bride Rehab and Paving	380				
Montgomery Co	Montgomery	Traffic Safety Improvement Program	H34 pavement widening, paved shoulders with safety edge and rumble strips and centerline rumble strips	Safety Features	500				

Griswold	Cass	Traffic Safety Improvement Program	Intersection of Hwy 48 and Whitney St, North St from Madison to school	Safety Features	8				
DOT-D04-RPA13	Cass	Highway Program	770th St 1.9 MI E of IA 148 (EB & WB)	Bridge Rehabilitation					3,000
DOT-D04-RPA13	Fremont	Highway Program	Fisher Creek 2.2 MI W of US 59	Bridge Deck Overlay					450
DOT-D04-RPA13	Fremont	Highway Program	Ditch 2.8 MI E of I-29	Bridge Replacement					3,500
DOT-D04-RPA13	Fremont	Highway Program	Ditch 3.1 MI E of I-29	Bridge Replacement					3,500
DOT-D04-RPA13	Fremont	Highway Program	Stream 3.9 MI E of I-29	Bridge Replacement					3,500
DOT-D04-RPA13	Fremont	Highway Program	Abandoned RR and local Rd 1.6 MI S of IA 2 (SB)	Bridge Deck Overlay					800
DOT-D04-RPA13	Montgomery	Highway Program	W of IA 48 to Co Rd H34	Grade and Pave					12,000
DOT-D04-RPA13	Cass	Highway Program	Indian Creek 0.4 MI E of IA 48	Bridge Deck Overlay			600		
DOT-D04-RPA13	Montgomery	Highway Program	West Nodaway River 0.3 MI W of US 71 (EB)	Bridge Deck Overlay			610		
DOT-D04-RPA13	Page	Highway Program	East Nishnabotna River 1.0 MI N of IA 48	Bridge Replacement			4,708		

**Source:** 2020-2024 Iowa Transportation Improvement Program, 2020-2023 State Transportation Improvement Program

## **Funding Programs**

There are numerous funding sources when it comes to transportation planning, design, building and repair. Below are some common programs used within the region for various transportation projects.

### *Iowa Highway Program*

Iowa Highway Program-provides investments in primary and interstate highway construction-related projects. The objective of the program is the safety, maintenance and modernization of Iowa's existing highway system and developing and constructing capacity and system enhancement projects. Projects in many cases overlap with the State Transportation Improvement Program, and may be listed above.

### *National Highway Performance Program*

National Highway Performance Program-provides funds to improve the condition and performance of highways included in the National Highway System (NHS) and for construction of new facilities on the NHS.

### *Surface Transportation Block Grant*

Surface Transportation Block Grant-provides funding to the region to be used on projects which meet needs and goals of the Long Range Transportation plan, and address needs such as safety, signalization and operation maintenance.

### *Competitive Highway Bridge Program*

Competitive Highway Bridge Program-funds can be applied for by State Department of Transportations to replace or rehabilitate bridges on public roads.

### *State Recreational Trails Program*

State Recreational Trails Program – provides funds to establish transportation and recreation trails in Iowa for the use and enjoyment of the public.

### *Transportation Alternatives Program*

Transportation Alternatives Program-is funding available through the RPA for projects related to alternative transportation such as projects related to bicycle, pedestrian and non-motorized transportation. Eligible projects could include trail development or bicycle/pedestrian facilities.

### *Public Transit Infrastructure Program*

Public Transit Infrastructure Grant Program – provides funding for improvement of the vertical infrastructure of Iowa's designated public transit systems. These funds are available on a competitive basis.

### *Airport Improvement Program*

Airport Improvement Program (AIP) – funds aviation safety programs and aviation planning and development projects.

### *General Aviation Vertical Infrastructure*

General Aviation Vertical Infrastructure (GAVI) Program - provides funding for landside development projects such as terminal, hangar, and fuel-facility construction and/or renovation at public-owned general aviation airports.

### *Traffic Safety Improvement Program*

Traffic Safety Improvement Program – funds can be used for traffic safety improvements or studies on public roads under county, city or state jurisdiction.

### *Living Roadway Trust Fund*

The Living Roadway Trust Fund (LRTF) was established by the Iowa Legislature in July 1989. This fund was created to implement Integrated Roadside Vegetation Management (IRVM) programs on city, county or state rights-of-way or areas adjacent to traveled roadways. Examples of projects eligible for funding through this program are planning and public education, installation or initial maintenance and development, special staff training, special equipment, or increased protection for existing vegetation. The Iowa Code, Section 314.22, requires that county or city applicants must have an IRVM plan on file with the IRVM coordinator's office before applying for funds. It further states that all county applications must be sponsored by the county engineer or county conservation board.



# Chapter 7

## Long Range Plan (Years 6-20)

Future transportation within the RPA will most likely continue to serve the region in a way that is very similar to today. The current network of roads and highways is well established and is accessible by most residents and businesses within the RPA. While vehicles are well established as the primary means of transportation in the region; alternatives in the form of rail, aviation, public transit and recreational trails do exist and are being expanded upon, however, they are small in comparison. Maintaining the current network is imperative to sustain the current levels of activities within the region. Network infrastructure in disrepair would increase transportation costs and decrease the safety of the network in the region. Therefore a majority of the resources spent towards transportation infrastructure in the future will go towards maintaining the existing network and preserving the current services offered.

The following are additional improvements that are suggested or needed in the RPA and are an addition to the previously listed inventory of the regional transportation network projects. While some modes of transportation have specific projects planned out that will need done in future years, others will vary heavily based on things such as funding and political environment. Where specific projects are not listed, the general project descriptions should be used as justification for Transportation Improvement Plan project development over the next 20 years. For future project selection, projects which work towards a goal listed, or are specifically listed in this plan, shall be given more consideration than other projects that do not meet those

### Roads and Bridges

- Raise the grade on Iowa 2 from the Missouri River to I-29
- Maintain the existing regional highway network
- Initiate improvements at the federal, state, county and city levels as needed
- Preservation of current network infrastructure through replacement, rehabilitation and safety improvements are a higher priority over new construction
- Evaluate the existing network and its effectiveness in transporting goods and people throughout the region and surrounding areas

The State of Iowa Long Range Transportation Plan contains a highway improvement matrix for the primary road system within the state. Below are three tables which detail the projects within this matrix for the region. Areas shaded with a solid red color are where improvements are needed.

**Figure 48 A-C: Tables – Highway Improvement Matrix for RPA 13**

**Figure 48 A: Highway Improvement Matrix—Interstates**

Interstate	ID	Counties	Corridor	Capacity	Freight	Condition	Operations	Bridge
					(out of 94)		(out of 54)	(out of 216)
I-29	420	Fremont, Mills	IA 2 to US 34		94, 29		54	
I-80	369	Pottawattamie, Cass	US 59 to US 6/US 71				47	77, 190

I-80	273	Cass, Adair, Madison, Dallas	US 6/US 71 to US 169	×			31	113, 142
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Source: Iowa in Motion 2045 State Transportation Plan

**Figure 48 B: Highway Improvement Matrix—US Routes**

US Route	ID	Counties	Corridor	Capacity	Mobility and safety	Freight (out of 94)	Condition	Bridge (out of 216)	Stewardship Only
US 34	453	Montgomery, Adams, Union	US 71 to IA 25					126, 208	
US 59	148	Fremont, Page	MO border to IA 2						
US 59	295	Fremont, Page, Mills	IA 2 to US 34					47	
US 71	296	Page, Montgomery	MO border to US 34						
US 71	167	Montgomery, Cass	US 34 to I-80					70	
US 71	166	Cass, Audubon, Carroll	I-80 to US 30					111	
US 275	146	Fremont, Mills	MO border to US 34						

Source: Iowa in Motion 2045 State Transportation Plan

**Figure 48 C: Highway Improvement Matrix—State Routes**

IA Route	ID	Counties	Corridor	Capacity	Freight (out of 94)	Condition	Bridge (out of 216)	Stewardship Only
IA 2	147	Fremont	I-29 to US 59		29		138, 211	
IA 2	231	Fremont, Page	US 59 to US 71					
IA 2	140	Page, Taylor, Ringgold	US 71 to US 169					
IA 48	143	Page, Montgomery	US 59 to US 34					
IA 48	144	Montgomery, Cass	US 34 to US 6					

IA 92	145	Pottawattamie, Cass	US 59 to US 71				127	
IA 92	137	Cass, Adair, Madison	US 71 to US 169					
IA 148	136	Adams, Cass	US 34 to I-80				96	
IA 173	100	Cass, Shelby, Audubon	IA 83 to IA 44					

**Source:** Iowa in Motion 2045 State Transportation Plan

### Transit

- Develop new areas of service, where feasible, and attract new riders without compromising service to existing riders
- Maintain and replace existing transit fleet as necessary and replace fleet as funds allow
- Coordinate with other public transit providers adjacent to SWITA services
- Promote ride share services

### Rail

- Engage railroads in the decision-making process and community development planning process to develop and maintain routes and infrastructure that would better serve the communities
- Work with railroads to improve safety of the rail network, especially when improvements are being made
- Consider the feasibility of adding passenger rail services to the region

### Aviation

- Support updates and expansions to the regional airports
- Search for opportunities to utilize current facilities
- Expand hangar capacity

### Trails

#### *Montgomery County*

- Connection between Red Oak and Viking Lake (between H34 and railroad)
- Red Oak Eastern Trailhead
- Indian Gully expansion
- Indian Gully enhancements (arboretum, pollinator habitat, art, solar lighting)
- On street bicycle route improvements

#### *Cass County*

- Connecting Atlantic to the T-Bone Trail

#### *Fremont County*

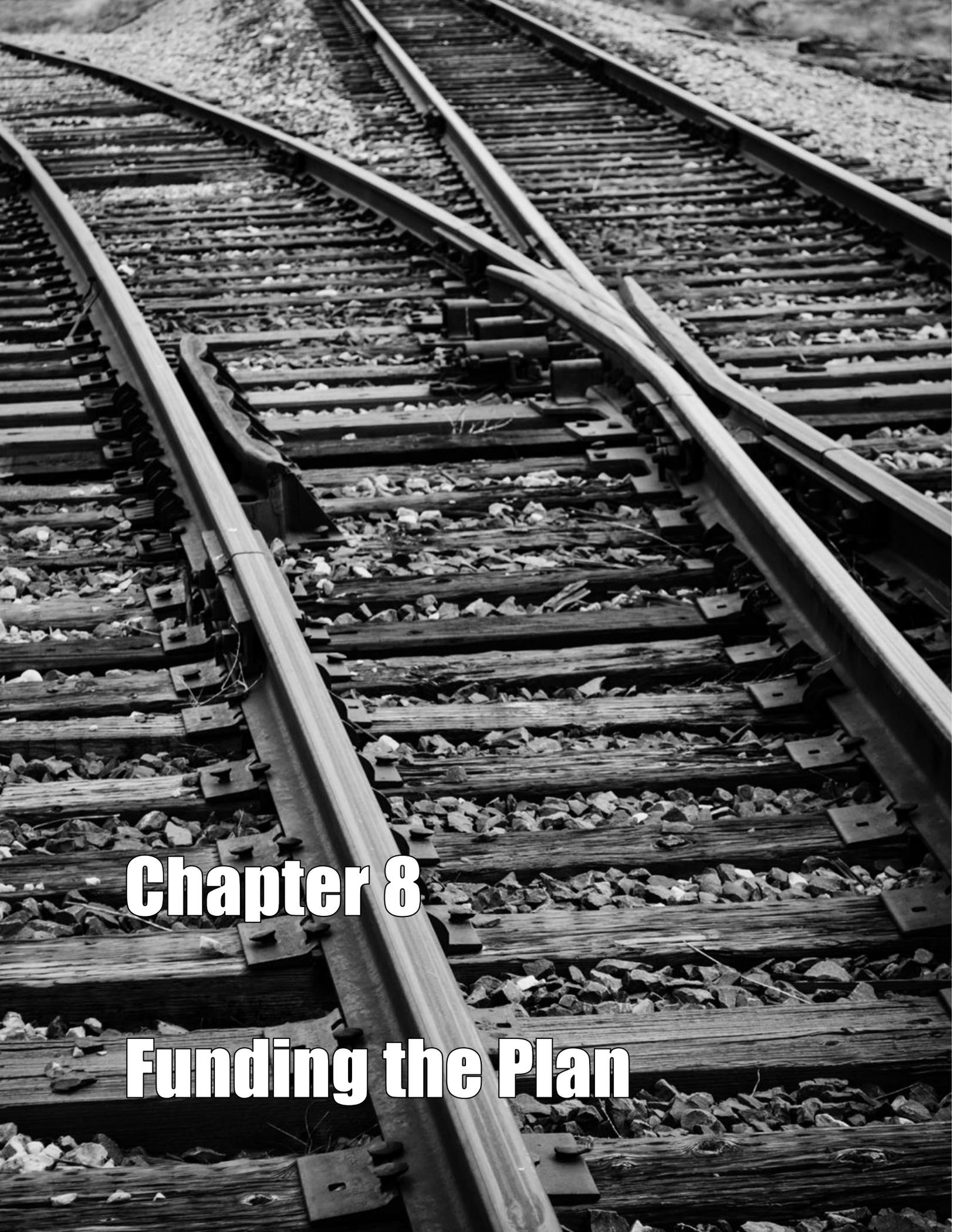
- Constructing a trail between Farragut and Shenandoah
- Sidney Safe Routes to school

*Page County*

- Constructing a trail from Shenandoah and the Wabash Trace to Rapp Park
- Resurfacing asphalt from Sportsman park trailhead to Highway 59
- Improvements to Izaak Walton Lodge on the Wabash Trace

*General*

- Focus development on finishing current trail projects
- Place development priorities on facilities that address the greatest public use and need
- Enhance safety of cyclists and pedestrians
- Work with county boards to connect existing trails
- Seek different opportunities for new trail connections such as abandoned railroads and greenbelt development with river systems
- Partner with surrounding RPA organizations to develop regional trails plan
- Promote regional trail connections and connectivity to larger urban areas
- Eliminate all shared road routes by creating off road trails to adequately replace them
- Improve conservation, health and wellness of the region

A black and white photograph of railroad tracks receding into the distance. The tracks are made of steel rails on wooden ties, with gravel ballast between them. The perspective is from a low angle, looking down the tracks as they curve slightly to the right. The lighting creates strong shadows and highlights, emphasizing the textures of the wood, metal, and gravel.

# **Chapter 8**

# **Funding the Plan**

Transportation programs are funded through a combination of local, state and federal programs. These programs fund a range of transportation improvements and operations for all transportation modes. Funding is spent on construction, improvements, and maintenance of the nation's transportation network, supporting transportation safety and enforcement activities. Most federal funds given to state and local governments are collected from user fees and taxes and are distributed based on formulas. Funds distributed to each state are based upon the amount of interstate highway vehicle miles and interstate lane miles located within the state. Funding opportunities for Iowa's airports are based on the number of passengers, population and geographic area of the state. Transit funds are based on transit ridership. Other programs that have no mandatory distribution formula are distributed based on competitive applications or another selection process.

- **Highway Trust Fund**

The Highway Trust Fund is a transportation fund established in 1956 and expanded since to provide funding to support the construction of the nation's interstate system. New expansions have created a Mass Transit Account designated to support mass transit. User fees include fuel taxes, heavy vehicle use taxes, and retail taxes on purchases of trucks and truck tires. The funds, not including those dedicated to the Mass Transit account, are used for construction, maintenance and improvement of the federal highways, a wide range of motor carrier safety and enforcement programs, and highway-railroad grade crossing programs. The mass transit account provides funds for the construction and operation of bus and rail transit systems.

- **Aviation Trust Fund**

The Federal Aviation Administration (FAA) is funded primarily by the Airport and Airway Trust Fund (AATF) and is used to finance investments in the airport and airway system and to cover operational costs of the airway system. Trust fund revenues are derived from passenger ticket taxes, segment taxes, freight taxes, and fuel taxes. The largest source of excise tax revenues is from transportation of passengers.

## **Mode Specific Funding**

A number of programs are available to local governments that are sponsored primarily by the federal or state government and are intended to develop certain aspects of the transportation systems. Funding for projects through these programs is usually made through a competitive application process. Most programs listed below are available to local and regional governments and various organizations within RPA 13 to fund projects related to transportation. Other programs may not be available to organizations or entities within the RPA but may be used indirectly by governments or organizations outside of or incorporates the RPA that could benefit the RPA. In most cases, a local match is required either through allocated budgets of local governments, state funds or private funding sources. A listing of the public funding sources below with application requirements and specific guidelines can be found on the Iowa DOT Funding Guide at ([http://www.iowadot.gov/pol\\_leg\\_services/funding\\_guide.htm](http://www.iowadot.gov/pol_leg_services/funding_guide.htm)).

### *Aviation Programs*

- **Federal Airport Improvement Program (AIP)**

This program provides funding for airport improvements and airport planning. Public agencies owning public-use airports in the Federal Aviation Administration's (FAA) National Plan of Integrated Airport Systems are eligible to request funds.

- **State Airport Improvement Program**

This program provides funding for airport improvements, navigational aids, communications equipment, marketing, safety, security, outreach, education, and planning. Airport Development and Immediate Safety Enhancement are specific funding programs under the Airport Improvement Program. Publicly owned airports in Iowa are eligible to request funds.

- **Airport Vertical Infrastructure Program**

This state program funds improvements to the vertical infrastructure at commercial service and general aviation airports in Iowa. Publicly owned airports in Iowa are eligible to request funds.

### *Economic Development Programs*

- **Revitalize Iowa's Sound Economy (RISE)**

This state program was established to promote economic development in Iowa through construction or improvement of roads and streets. All Iowa cities and counties are eligible to request funding.

### *Rail Programs*

- **Railroad Revolving Loan and Grant Program**

This state loan and grant program was established to build or improve rail infrastructure or facilities that will spur economic development and job growth and provide assistance to railroads for the preservation and improvement of the rail transportation system. Businesses and industries, railroads, local governments and economic development agencies are eligible to request funding.

- **Highway-Railroad Crossing Safety Program**

This federally funded program improves the safety of public highway-railroad grade crossings. Railroad companies and public road jurisdictions are eligible to request funding.

- **Highway-Railroad Crossing Surface Repair Program**

This federally funded program improves the safety of public highway-railroad grade crossings. Railroad companies or other private entities, such as grain elevators, that own a railroad track; and public road jurisdictions are eligible to request funding.

- **Railroad Rehabilitation and Improvement Financing Program**

This federal program was established to provide direct loans and loan guarantees to: 1) acquire, improve or rehabilitate intermodal or rail equipment or facilities, including track, 2) components of track, bridges, yards, buildings, and shops; 3) refinance outstanding debt incurred for those purposes; or 4) develop or establish new intermodal or railroad facilities.

Railroads, state and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, limited option freight shippers who intend to construct a new rail connection are eligible to request funding.

- **Iowa Clean Air Attainment Program (ICAAP)**

This program funds highway/street, transit, bicycle/pedestrian, or freight projects or programs which help maintain Iowa's clean air quality by reducing transportation-related emissions. Eligible highway/street projects must be on the federal-aid system, which includes all federal functional class routes except local and rural minor collectors. The state, a county or a city may sponsor an application or may co-sponsor for private, non-profit organizations and individuals. Transit systems may apply directly for funding.

### *Road, Street and Bridge Programs*

- **Revitalize Iowa's Sound Economy (RISE)**  
This state program was established to promote economic development in Iowa through construction or improvement of roads and streets. Iowa cities and counties are eligible to request funding.
- **Highway Bridge Program (STBG set-aside)**  
Using a set-aside of Surface Transportation funds, this federal program provides for the replacement or rehabilitation of structurally deficient or functionally obsolete public roadway bridges. Any agency with public road jurisdiction is eligible to request funding.
- **Iowa Clean Air Attainment Program (ICAAP)**  
The ICAAP funds projects that are intended to maximize emission reductions through traffic flow improvements, reduced vehicle-miles of travel, and reduced single-occupancy vehicle trips. This program utilizes \$4 million of Iowa's CMAQ apportionment. Funding targeted towards these local projects is eligible to be swapped for Primary Road Fund dollars.
- **Surface Transportation Block Grant (STBG) and SWAP**  
This program is designed to address specific issues identified by Congress and provides flexible funding for projects to preserve or improve the condition/performance of transportation facilities, including any federal-aid highway or public road bridge. STBG funding may be utilized on:
  - Roadway projects on federal-aid routes
  - Bridge projects on any public road
  - Transit capital improvements
  - TAP eligible activities
  - Planning activities

Iowa targets STBG funding to each of its 27 MPOs and RPAs on an annual basis for programming based on regional priorities. Iowa has implemented a Swap program that allows MPOs and RPAs, at their discretion, to swap targeted federal STBG funding for state Primary Road Fund dollars. Iowa also targets a portion of its STBG funding directly to counties for use on county bridge projects. Iowa's swap program allows counties, at their discretion, to swap federal STBG funding for state Primary Road Fund dollars. These funds can be used on either on-system or off-system bridges however off-system bridge investments must be continued to maintain the ability to transfer the federal STBG set-aside for off system bridges.

- **Regional Surface Transportation Program**  
Regionally allocated funding to the region from the Iowa DOT, RPA 13 receives approximately \$1.3million each year for federal aid eligible road projects. The region sub-allocates these funds to each county and city over 5,000 based on population and number of federal aid eligible road miles. The allocation strategy is such that it equally distributes funding to each county and selected cities proportionally. Smaller cities and entities that don't automatically receive funding will be eligible to apply the RPA 13 for annual funding. Applications for funding will be sent directly to all eligible entities in December and will be due back between January 1st and February 28th. Those jurisdictions that receive a sub-allocation for funding will also be required to complete an application for each project they wish to receive funding for. This recently adopted requirement ensures that each project that receives funding fits and is in line with the

region's long term goals and commitment to maintaining the local transportation system. Proposed projects are presented and reviewed by the Technical Committee with recommendations for approval to the Policy Board. Counties and cities have the ability to advance projects outside their annual allotment as long as the TIP is fiscally constrained. This is allowed to ensure timeliness of project completion. Sub-allocation values are as follows:

Cass County	18.14%
Fremont County	21.31%
Montgomery County	17.00%
Page County	23.96%
City of Atlantic	5.98%
City of Clarinda	4.11%
City of Red Oak	5.04%
City of Shenandoah	4.48%

- **County and City Bridge Construction Fund**  
The intent of the program is the construction or replacement of public roadway bridges. All Iowa counties and cities are eligible to request funding.
- **Federal Lands Access Program**  
This program provides funding for projects that are located on or adjacent to, or that provide access to, federal lands (public highway, road, bridge, trail or transit systems). State, tribal, or local governments that title or maintain a federal lands access transportation facility are eligible to request funding.
- **City Bridge Program**  
A portion of STBG funding dedicated to local bridge projects is set aside for the funding of bridge projects within cities. Eligible projects need to be classified as structurally deficient or functionally obsolete. Projects are rated and prioritized by the Office of Local Systems with awards based upon criteria identified in the application process. Projects awarded grant funding are subject to a federal-aid obligation limitation of \$1 million. Iowa has implemented a Swap program that allows cities, at their discretion, to swap federal STBG funding for state Primary Road fund dollars.

### *Traffic Safety and Engineering Programs*

- **County-State Traffic Engineering Program (C-STEP)**  
Solve traffic operation and safety problems on primary roads outside incorporated cities. Any Iowa county is eligible to sponsor a project.
- **Iowa Traffic Engineering Assistance Program (TEAP)**  
TEAP provides traffic engineering expertise to local units of government. The purpose is to identify cost-effective traffic safety and operational improvements as well as potential funding sources to implement the recommendations. Typical studies include high-crash locations, unique lane configurations, obsolete traffic control devices, school pedestrians, truck routes, parking issues, and other traffic studies. Iowa cities and counties without the resources for a staff traffic engineer, typically cities with a population less than 35,000, are eligible to request funding. Roundabout feasibility or design reviews are available for any size city or county.
- **Traffic Safety Improvement Program**  
The Traffic Safety Improvement Program provides funding for traffic safety improvements or

studies on any public roads under county, city or state jurisdiction. Any state, county or city is eligible to request funding.

- **Urban-State Traffic Engineering Program (U-STEP)**  
This program aims to solve traffic operation and safety problems on primary roads in Iowa cities. Any Iowa city is eligible to request funding.
- **Highway Safety Improvement Program – Secondary**  
This program is funded using a portion of Iowa’s Highway Safety Improvement Program apportionment and funds safety projects on rural roadways. Funding targeted towards these local projects is eligible to be swapped for Primary Road Fund dollars.
- **Pedestrian Curb Ramp Construction**  
This program assists cities in complying with the Americans with Disabilities Act (ADA) on primary roads in Iowa cities. Any Iowa city is eligible to request funding.
- **Safe Routes to School (now part of the federal Transportation Alternatives Program)**  
This program aims to provide infrastructure and non-infrastructure improvements which will result in more students walking or bicycling to school. State, local and regional agencies, schools (both public and private), parent-teacher associations, etc. are eligible to request funding. Non-eligible organizations (such as a non-profit) may partner with an eligible applicant.

#### *Trails, Enhancement and Youth Programs*

- **DOT/DNR Fund**  
This program funds roadside beautification projects of primary system corridors with plant materials. Any tax-levying body is eligible to request funding.
- **Living Roadway Trust Fund**  
This program funds projects that implement integrated roadside vegetation management programs (IRVM) on city, county or state rights-of-way or publicly owned areas adjacent to traveled roadways. Categories for funds of eligible projects are as follows: roadway inventories, gateway enhancement plantings for city, county and state locations, education/training, research/demonstration, roadside enhancement, seed propagation, and special equipment. Individuals, cities, counties or the state may apply. Individual applicants must have written support from the agency responsible for maintaining the right-of-way in which the project is proposed. County projects must be sponsored by either the county engineer or the county conservation board.
- **Recreational Trails Program (Federal)**  
This program was established to provide and maintain motorized and non-motorized recreational trails and trail-related projects. Public agencies, and non-profit or private organizations are eligible to sponsor – non-profit and private sponsorship will require a public agency co-sponsor for funding.
- **Recreational Trails Program (State)**  
This program was established to fund public recreational trails. State agencies, counties, cities and non-profit organizations may sponsor applications.
- **State Scenic Byway Program**  
This program was established to identify, protect and enhance roadways in Iowa which exemplify the state’s scenic and historic resources. This effort is carried out through volunteer work and cooperation between interested citizens, organizations, local governments, and the DOT. This is

not a funding program. The DOT designates a route as a State Scenic Byway on the basis of scenic and historic qualities, using established criteria. Applicants are then responsible for funding tourism and promotional plans. Federal grant opportunities may be available for scenic byways for certain infrastructure projects (see Federal Transportation Alternatives Program). While no funds are distributed through the state program, designation as a state scenic byway may be applied for by any group or individual having the support and concurrence of their local government entity (i.e. a County Board of Supervisors, City Council, Resource Conservation and Development Board, or County Conservation Board).

- **Iowa Clean Air Attainment Program (ICAAP)**  
This program funds highway/street, transit, bicycle/pedestrian, or freight projects or programs which help maintain Iowa's clean air quality by reducing transportation-related emissions. Eligible highway/street projects must be on the federal-aid system, which includes all federal functional class routes except local and rural minor collectors. The state, a county or a city may sponsor an application or may co-sponsor for private, non-profit organizations and individuals for funding. Transit systems may apply directly.
- **Safe Routes to School (now part of the federal Transportation Alternatives Program)**  
This program aims to provide infrastructure and non-infrastructure improvements which will result in more students walking or bicycling to school. State, local and regional agencies, schools (both public and private), parent-teacher associations, etc. are eligible to request funding. Non-eligible organizations (such as a non-profit) may partner with an eligible applicant.
- **Iowa's Transportation Alternatives Program**  
This program targets STBG funding to MPOs and RPAs to award to locally sponsored projects that expand travel choices and improve the motorized and non-motorized transportation experience.
- **Urban Youth Corps**  
This program is intended to provide transportation-related employment and training opportunities to youth between the ages of 16 and 21 who face barriers to employment; along with meaningful and productive improvements to transportation facilities.  
Any public or private nonprofit organization is eligible to request funding.
- **Community Attraction and Tourism (CAT)**  
This grant program through Enhance Iowa provides funding for projects which are primarily vertical which includes recreational trails, land acquisition, repair of major buildings and site development. Applicants must have at least 65% of the total project cost committed to qualify for the CAT grant and grants are awarded quarterly (January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup>).
- **People for Bikes**  
People for Bikes is an organization dedicated to increasing safety and accessibility for all bicyclists. Each year, People for Bikes hold one or two grant cycles where applicants can apply for up to \$10,000 to go towards bike trails, mountain bike facilities, bike parks and more.
- **Resource Enhancement and Protection (REAP) Grant**  
This State of Iowa program provides various levels of funding for projects aimed at enhancing and protecting the state's natural and cultural resources. These grants do not require a local match and can fund projects such as trails, habitat restoration and parkland expansion.

## *Transit Programs*

- **State Transit Assistance**  
This program provides state funding assistance to support and improve locally sponsored public transit programs. Urban or regional transit systems as designated by local officials under Chapter 324A of the Code of Iowa. (Transit systems may be organized as public bodies or as private not-for-profit corporations.)
- **Metro/Statewide/Non-Metro Transportation Planning (Sec. 5303, 5304, 5305)**  
This program provides funding and procedural requirements for multimodal transportation planning. (Jointly administered by FTA and the Federal Highway Administration) States, Metropolitan Planning Organizations (MPO) and Regional Planning Affiliations (RPA) are eligible for funding.
- **Urbanized Area Formula Program (Sec. 5307)**  
This program was established to provide federal funding for support of transit activities in urbanized areas over 50,000 in population. Those activities may include capital, planning, job access and reverse commute projects, as well as operating expenses in certain circumstances. Urban transit systems from urbanized areas are eligible for funding.
- **Fixed Guideway Capital Investment Program (Sec. 5309)**  
This program offers Federal assistance for transit capital improvements including new and expanded rail, bus rapid transit, and ferry system projects that will expand the core capacity of existing fixed guideway corridors. The program also includes provision for streamlining aspects of the New Starts process. “Direct Recipients” within the meaning of FTA’s Section 5307 Urbanized Area Formula Program, plus States may apply directly to Federal Transit Administration (FTA).
- **Enhanced Mobility of Seniors and Individuals with Disabilities (Sec. 5310)**  
This program was established to provide federal funding for support of transit activities in rural areas and in urban areas, to serve the special needs of transit-dependent populations beyond traditional public transit services and Americans with Disabilities Act (ADA) complementary paratransit services. Urban and regional transit systems as designated by local officials under Chapter 324A of the Code of Iowa (Transit systems may be organized as public bodies or as not-for-profit corporations) are eligible for funding.
- **Formula Grants for Rural Areas (Sec. 5311)**  
This program provides federal funding for support of transit activities in rural areas and in urban areas of less than 50,000 in population (operating, capital, planning, and job access and reverse commute assistance). Urban transit systems with less than 50,000 in population and regional transit systems as designated by local officials under Chapter 324A of the Code of Iowa are eligible to apply for funding. (Transit systems may be organized as public bodies or as private, not-for-profit corporations.)
- **Intercity Bus Assistance (Sec. 5311(f))**  
Urban transit systems less than 50,000 in population and regional transit systems as designated by local officials under Chapter 324A of the Code of Iowa are eligible to apply for funding. (Transit systems may be organized as public bodies or as private, not-for-profit corporations.) Private intercity bus companies, public transit agencies and local communities are eligible. Joint private/public applications are encouraged.

- **Bus and Bus Facilities (Sec. 5309)**  
This program offers Federal assistance to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities. Urban and regional transit systems as designated by local officials under Chapter 324A of the Code of Iowa are eligible to apply for funding. (Transit systems may be organized as public bodies or as private, not-for-profit corporations.)
- **Congestion Mitigation/Air Quality (CMAQ)**  
CMAQ provides flexible funding for transportation projects and programs tasked with helping to meet the requirements of the Clean Air Act. These projects can include those that reduce congestion and improve air quality.
- **State of Good Repair (Sec. 5337)**  
This program offers Federal assistance dedicated to repairing and upgrading rail transit systems along with high-intensity bus systems that use high-occupancy vehicle lanes, including bus rapid transit (BRT). (Replaced the Fixed Guideway Modernization Formula program). “Direct recipients” within the meaning of FTA’s Section 5307 Urbanized Area Formula Program, plus States may apply directly to Federal Transit Administration (FTA). Must have operated fixed guideway public transportation facilities for at least seven years.
- **Iowa Clean Air Attainment Program (ICAAP)**  
This program funds highway/street, transit, bicycle/pedestrian, or freight projects or programs that help maintain Iowa’s clean air quality by reducing transportation-related emissions. Eligible highway/street projects must be on the federal-aid system, which includes all federal functional class routes except local and rural minor collectors. The state, a county or a city may sponsor an application or may co-sponsor for private, non-profit organizations and individuals for funding. Transit systems may apply directly.
- **Surface Transportation Program (STP) – transit**  
This Federal Highway Administration (FHWA) program provides flexible funding that may be used for transit projects. Urban and regional transit systems as designated by local officials under Chapter 324A of the Code of Iowa are eligible to request funding. Transit systems may be organized as public bodies or as not-for-profit corporations.

## **Then, Now and the Future**

### *Funding*

As stated above, Surface Transportation Block Grant and Transportation Alternative Program funding both federal funds allocated to the RPA. These funds aid in supporting projects throughout the region that otherwise wouldn’t be possible due to a funding deficiency with local funds. The following table shows Surface Transportation Block Grant and Transportation Alternative Program funding from 2008 through 2019 and then future projections through 2045. Projections were figured by calculating the change in STBG funding for years 2008 through 2019 and then averaging the differences resulting in an average change of \$45,902 per year. TAP funding projections were figured by assuming funding will remain constant for the coming years. Along with these figures, monies spent by the Iowa DOT on the State highway system within the region are included for the same time period and projected at remaining constant.

**Figure 49: Table – History and Projections of Federal and State Funding (2008-2045)**

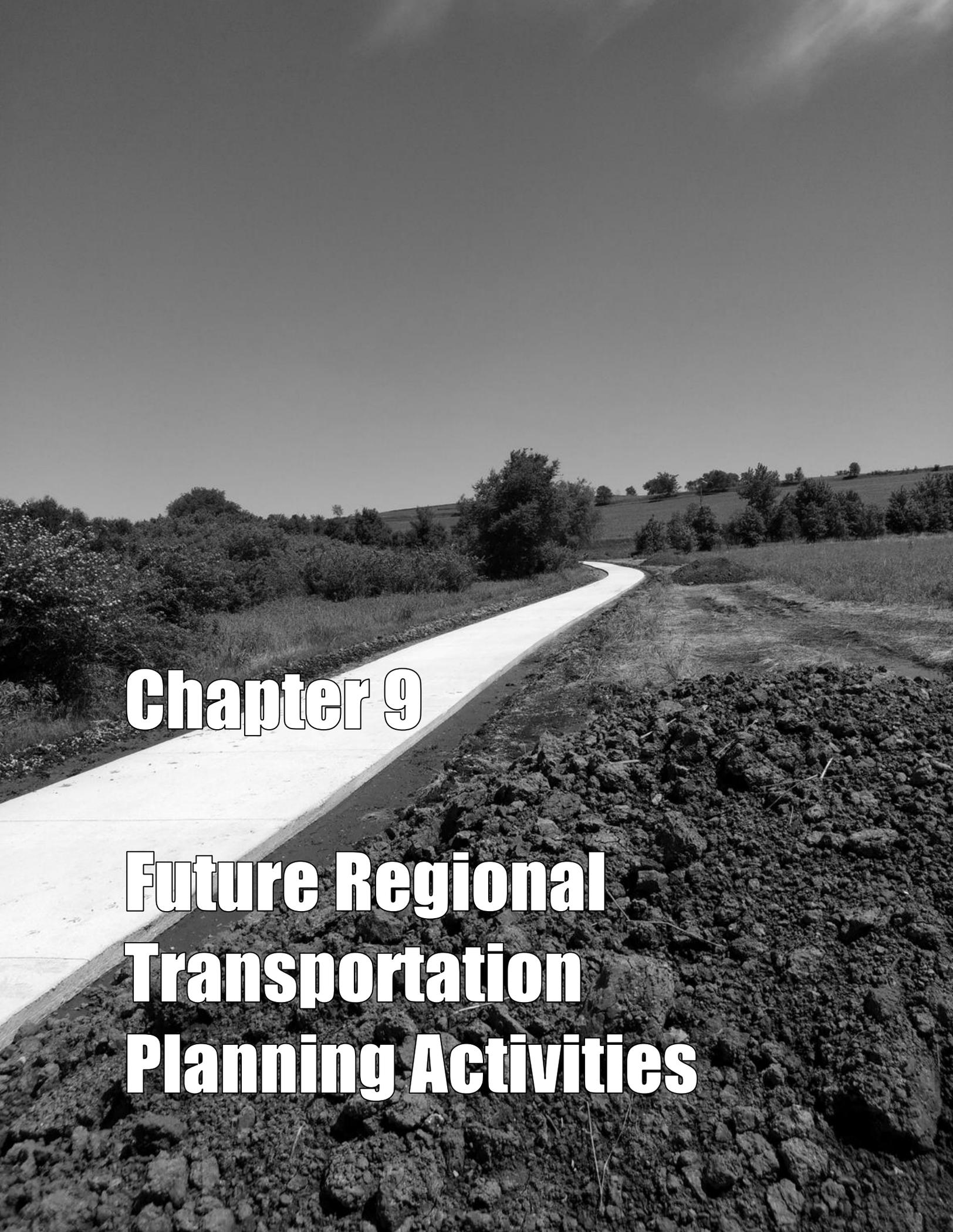
	Fiscal Year	DOT Spending	STP/STBG	TE/TAP
History	2008	\$7,644,000	\$1,000,444	\$75,021
	2009	\$25,039,000	\$1,130,616	\$80,333
	2010	\$8,792,000	\$1,255,765	\$86,404
	2011	\$2,571,684	\$1,424,216	\$91,482
	2012	\$12,097,680	\$1,463,735	\$103,274
	2013	\$12,460,164	\$1,398,411	\$99,198
	2014	\$13,703,781	\$1,341,830	\$117,916
	2015	\$28,379,786	\$1,361,219	\$118,817
	2016	\$6,376,610	\$1,352,601	\$118,058
	2017	\$7,481,098	\$1,392,071	\$121,731
	2018	\$7,148,288	\$1,392,584	\$67,191
2019	\$12,851,389	\$1,505,371	\$120,309	
Projections	2020	\$12,045,457	\$1,551,273	\$120,000
	2021	\$12,045,457	\$1,597,176	\$120,000
	2022	\$12,045,457	\$1,643,078	\$120,000
	2023	\$12,045,457	\$1,688,981	\$120,000
	2024	\$12,045,457	\$1,734,883	\$120,000
	2025	\$12,045,457	\$1,780,786	\$120,000
	2026	\$12,045,457	\$1,826,688	\$120,000
	2027	\$12,045,457	\$1,872,591	\$120,000
	2028	\$12,045,457	\$1,918,493	\$120,000
	2029	\$12,045,457	\$1,964,396	\$120,000
	2030	\$12,045,457	\$2,010,298	\$120,000
	2031	\$12,045,457	\$2,056,200	\$120,000
	2032	\$12,045,457	\$2,102,103	\$120,000
	2033	\$12,045,457	\$2,148,005	\$120,000
	2034	\$12,045,457	\$2,193,908	\$120,000
	2035	\$12,045,457	\$2,239,810	\$120,000
	2036	\$12,045,457	\$2,285,713	\$120,000
2037	\$12,045,457	\$2,331,615	\$120,000	
2038	\$12,045,457	\$2,377,518	\$120,000	
2039	\$12,045,457	\$2,423,420	\$120,000	
2040	\$12,045,457	\$2,469,323	\$120,000	
2041	\$12,045,457	\$2,515,225	\$120,000	
2042	\$12,045,457	\$2,561,127	\$120,000	
2043	\$12,045,457	\$2,607,030	\$120,000	
2044	\$12,045,457	\$2,652,932	\$120,000	
2045	\$12,045,457	\$2,698,835	\$120,000	

Operations and maintenance of the road system within the region take a large portion of the budget for the counties. The following table shows data from 2014-2018 and then projections until 2045 for non-federal aid revenues and roadway operations and maintenance costs for the region. Revenues and expenditures vary considerably from year to year. Due to this variation, a conservative percentage was used for each category to project future values. A three percent increase was used for non-federal aid revenue while a four percent increase was used for operation and maintenance costs. As shown, the local funding is

largely consumed by simple operation and maintenance costs. This does not account for road improvements costs or costs to bring the system into a state of good condition.

**Figure 50: Table – History and Projections of Local Revenues and Operation and Maintenance Costs (2014-2045)**

		Revenue		Expenditures	
	Fiscal Year	Non-Federal Aid Revenue	Operations Cost on Roadway System	Maintenance Cost on Roadway System	
History	2014	\$19,388,992	\$5,802,786	\$10,313,188	
	2015	\$19,200,773	\$4,810,659	\$10,466,136	
	2016	\$22,082,817	\$5,006,973	\$12,482,413	
	2017	\$23,222,937	\$5,410,502	\$11,714,665	
	2018	\$24,466,037	\$5,709,464	\$12,713,059	
Projections	2019-2025	\$25,200,018	\$5,937,843	\$13,221,581	
	2026-2035	\$25,956,018	\$6,175,356	\$13,750,445	
	2036-2045	\$26,734,699	\$6,422,371	\$14,300,462	



## **Chapter 9**

# **Future Regional Transportation Planning Activities**

The RPA 13 Long Range Transportation Plan will be updated every five years and will be reviewed annually to implement revisions as needed to reflect changes in priorities. Amendments to the Long Range Transportation Plan will require a public hearing with a notice published no more than twenty days and no fewer than four days prior to the scheduled meeting. Other transportation planning activities may occur throughout the five year time frame and will supplement the LRTP. These activities include, but are not limited to the following:

- Passenger Transportation Development Plan
- Transportation Improvement Program
- Transportation Planning Work Program
- City, County or regional trail plans
- Feasibility studies

The five-year update and annual review will be completed by SWIPCO through the guidance of the RPA Policy Board and Technical Committee. Public participation will be included in all planning activities as outlined in the Region's Public Participation Plan.



# Appendix

## Minutes Adopting Final Plan

**MINUTES**  
**Regional Planning Affiliate 13 – Policy Board and Technical Committee**  
**TELECONFERENCE**  
**Thursday December 19, 2019**  
Call In 877-594-8353  
Passcode 73041235#

1. **Call to Order.** DeBord called the meeting to order at 1:33 p.m.
2. **Roll Call.**
  - a. Policy Board Attendees: Alan Armstrong, Dave Jones, AJ Lyman, Gary McClarnon, Donna Robinson, and Brad Wright.
  - b. Technical Committee Attendees: Dan Davis, JD King, John Lund, AJ Lyman, Gary McClarnon, and Brad Wright.
  - c. Others Present: Tammy DeBord and Alexis Fleener, SWIPCO; Scott Suhr, Iowa DOT.
3. **Approve Agenda.** Jones moved to approve the agenda. Armstrong seconded. The motion passed with all ayes.
4. **Approve October 17, 2019 Minutes.** Wright moved to approve the minutes of the October 17, 2019 meeting and Robinson seconded. The motion passed with all ayes.
5. **Review and Approve Amendment to Farragut Trails Project.** DeBord explained the city of Farragut has requested a change of scope in work for the Regional TAP award they received from RPA 13 in July 2019. The original project was let in the fall, but the bids were much higher than the engineer estimates due to the extensive flooding and demand in the area. The Iowa DOT recommended the scope of work be changed and the project be re-let. The change would not change the TAP award amount. Wright moved to recommend approval from the Technical Committee. McClarnon seconded. The motion passed with all ayes. Armstrong moved to approve for the Policy Board and Jones seconded. The motion passed with all ayes.
6. **Review and Approve Public Participation Plan Final.** DeBord presented the final PPP on behalf of Briggs, who is out of the office. SWITA recently had their review with the Iowa DOT. SWITA must maintain a PPP, and staff recommended a joint plan with RPA 13. Briggs integrated more SWITA information into the plan, making it viable for both RPA 13 and SWITA. Suhr recommended removing the names of the former Cass and Montgomery County engineers. In their place, the plan will say VACANT. Wright moved to recommend Technical Committee of the PPP as amended to remove the names of the county engineers and Lund seconded. The motion passed with all ayes. Jones moved the Policy Board approve the PPP with the change aforementioned. Armstrong seconded and the motion passed with all ayes.
7. **Review and Approve Long Range Transportation Plan Final.** DeBord presented the final LRTP on behalf of Briggs. Changes from the draft approved in October include:
  - a. Region specific pictures on the cover and chapter pages.
  - b. Updated wording for graph on page 54 to better explain the increased profit margin SWITA experienced and what the money was used for per Iowa DOT request.
  - c. More description for the proposed trails outlined on the map on page 71.
  - d. Justification for suballocation within the region on pages 113-114.
  - e. Cultural and historical sites pages 83-85. State Historical Society website interactive map information was included.Davis moved to recommend approval of the Technical Committee. Lyman seconded. Motion passed with all ayes. Robinson moved to approve for the Policy Board. Armstrong seconded. Motion passed with all ayes.

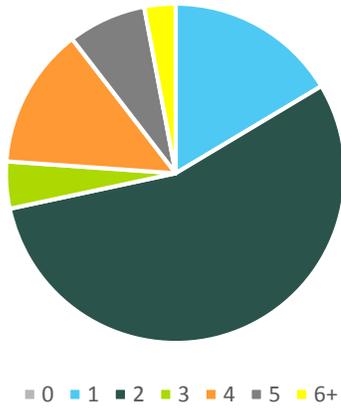
- 8. Review and Approve FY20 Transportation Planning Work Plan.** Fleener presented the amended TPWP for review. The Budget Summary table on page 11 has been updated to reflect carryover incorporated from FY2019 and adjusted to better reflect hours worked on the projects. McClarnon moved to recommend Technical Committee approval. Davis seconded and the motion passed with all ayes. Jones moved the Policy Board approve, Lyman seconded, the motion passed with all ayes.
- 9. Program Updates.** DeBord reported:
- a. TPMS has been updated and will go live next week. The new version will not allow counties to change their information once approved, it will be the responsibility of the RPA administrators. DeBord and Briggs will be learning the new system as they work through the upcoming TIP process.
  - b. DeBord emailed the STBG application to the Technical Committee, Policy Board, counties, and cities within the area. The applications are due back by February 28.
  - c. DeBord emailed the TAP application to the Technical Committee, Policy Board, counties, cities, and economic development groups. The applications are due back by February 28.
- 10. Other Business.**
- a. Robinson reported Montgomery County is reviewing applications for interim county engineers. They hope to have something in place around the first of the year. She will keep SWIPCO updated and forward all emails for applications once the interim has been contracted.
  - b. Jones reported Cass County has received one application for the county engineer. No action has been taken on that application at this time. Charles Marker, former county engineer, is the part time interim for the county and would be the RPA's point of contact.
- 11. Adjourn.** Jones moved to adjourn the meeting at 1:48 p.m. Armstrong seconded the motion. Motion passed with all ayes.

**\*Any individual requesting accommodations should do so no later than 36 hours prior to the scheduled meeting.**

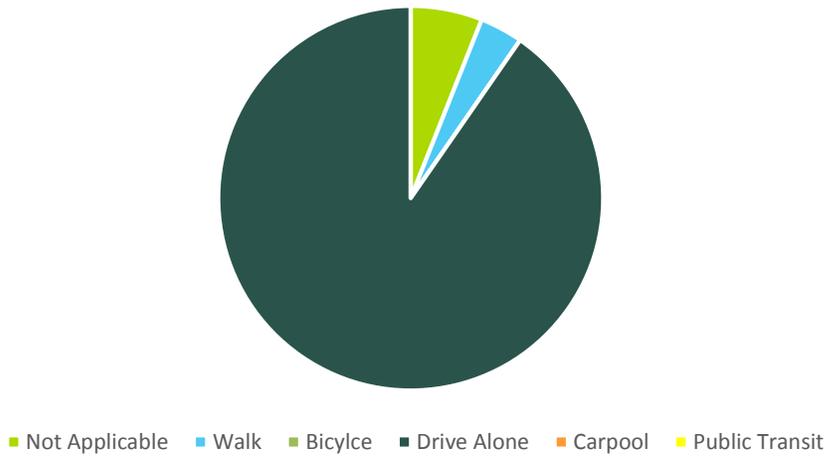
SWIPCO is an equal opportunity employer, provider and lender.

## Survey Results

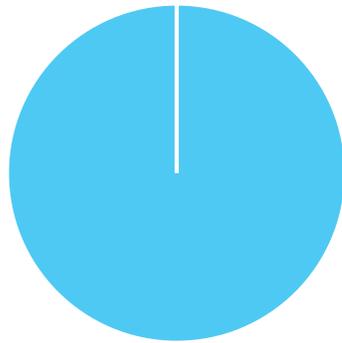
How many vehicles are available for your household?



How do you get to work?

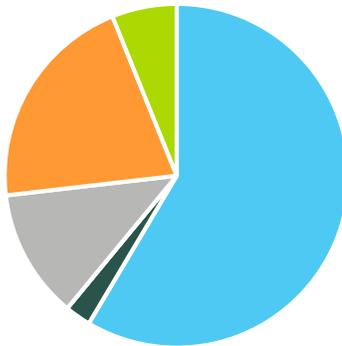


Have you ever lost a job or couldn't accept a job offer because of transportation issues?

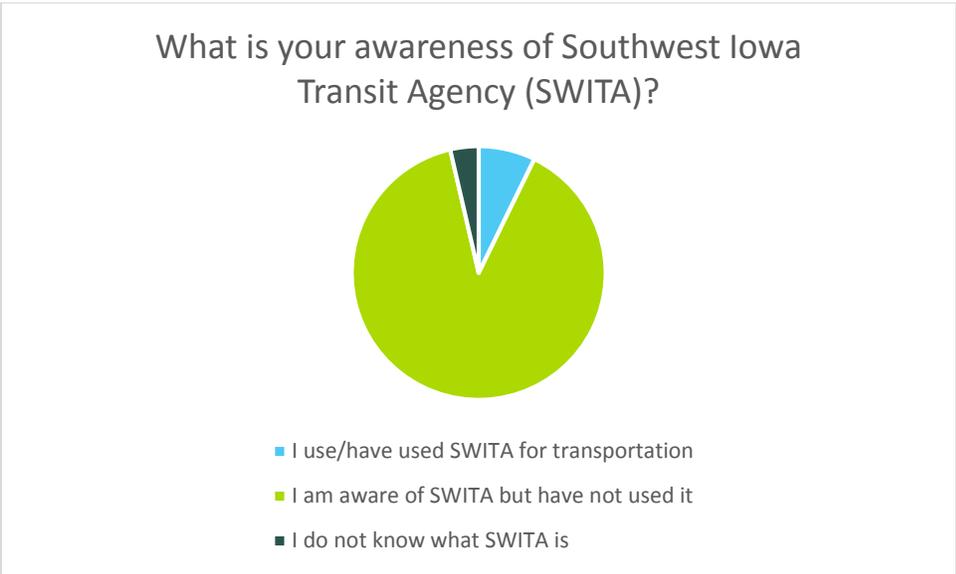
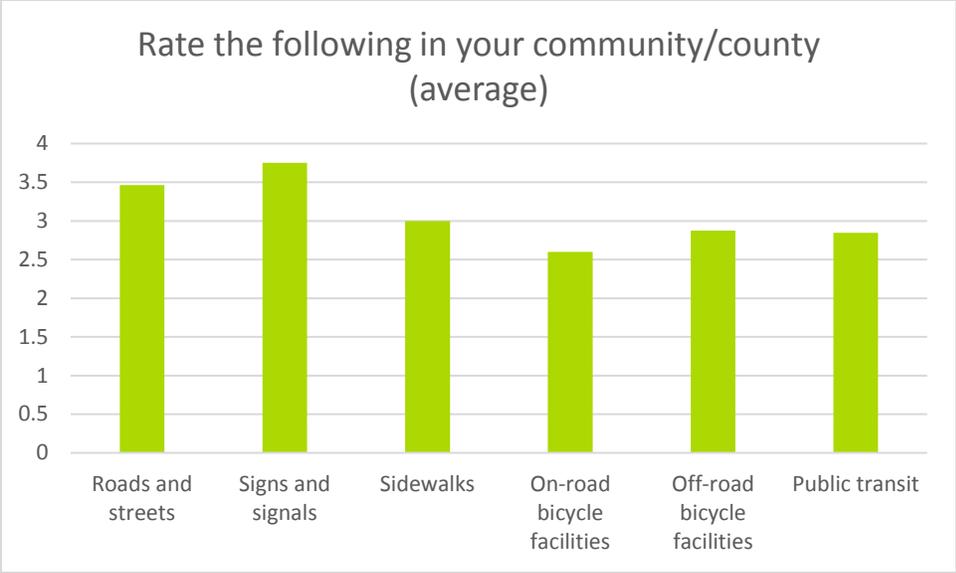


■ Yes ■ No

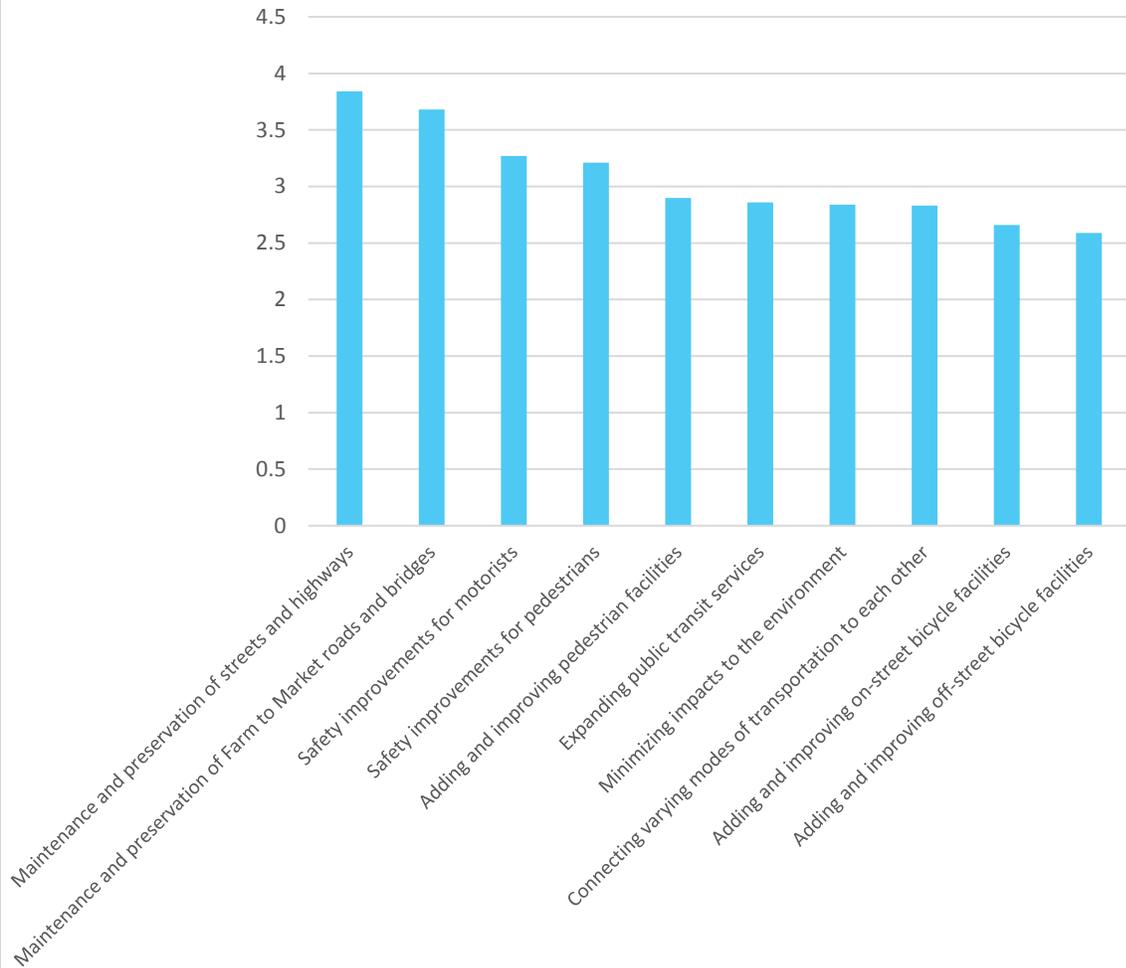
How do your children get to school/daycare?



■ Not applicable ■ Walk ■ Bicycle ■ They drive  
■ We drive them ■ School bus ■ Public Transit



The Long Range Transportation Plan will provide guidance for transportation planning for the next 20 years. How important are the following areas? (averaged)



**What three things do you like most about the existing transportation system in your county?**

connectivity

Good roads for the most part, some recreational facilities need more, good sidewalks

Reliable, affordable, extensive

easily accessible, I feel they are good stewards of my tax dollars

city and county roads are fairly well maintained; airport is now in decent shape;

The network grid, otherwise county roads in very poor condition.

I LIKE ALL THE BIKE TRAILS FOR CHEAP FUN FAMILY ACTIVITY, IN TOWN ROADS AREN'T AWFUL, BUT GRAVEL ROADS THAT ARE HIGHLY TRAVELED NORTH OF TOWN BY SEMI'S ARE MOSTLY MUD, HOLES, AND AWFUL FOR REGULAR SUV'S EVEN TO TRAVEL, ESPECIALLY AFTER A RAIN.

Affordable, convenient, timely

Adequate roads, maintained well, no big city traffic

Good streets
The price, the company, and reliable transportation
roads maintained
To my knowledge they provide services to the elderly, disabled and children.
It seems to work ok for now
SWITA is a great resource in our community, no traffic congestion, easy access to everything
I do not know enough about our current system to reply.
Carpooling. Reducing emissions.
Love the summer program for kids!
Repairing new highway 34 with overlay. Opportunity for multiple connections to a county-wide/regional trail system.
Easy access, friendly commuters, street names easy to read.
Generally well maintained
Odd questions, there is barely a system so this is impossible to answer.
light traffic, easy to navigate, reasonably safe
Our local group of volunteers using their own cars and many of their own resources to transport individuals around and outside the community.
School bussing is accessible, short distances to work, walking trails within community

<b>Are there any specific transportation issues or projects you would like to see addressed?</b>
Transportation services for those individuals who do not drive so that they are able to get to and from work at various times during the day
County roads need attention, particularly the gravel roads. Need more paved roads in the county whether they are asphalt or seal coat, especially in the Atlantic area. That would open new areas for home building.
TROUBLESOME CREEK ROAD IS ALMOST A "HIGHWAY" FOR SEMI'S AND SPEED THROUGH BY SEMIS ALL DAY LONG, THE ROAD GETS VERY BAD VERY QUICKLY AND ISN'T SERVICED AS OFTEN AS IT SHOULD, IT WAS ONCE TALKED ABOUT BEING SEEN A DIFFERENT ROUTE THEN GRAVEL TO HELP WITH THIS, AS FARMINGS WICKMAN CHEMICAL SEMIS CUT ACROSSED ON THIS ROAD THE GRAIN ELEVATOR AND TO GO TO THE ETHANAL PLANT.
Additional Transportation for elderly to & from doctor, etc.
Somehow encourage more walking/bicycle, hilly terrain makes more difficult
More taxi options, Uber, etc.
More bike and walking trails grants
Continue to improve recreational walking, biking amenities in the county.
Better options for those who can't drive themselves
If it does not exist, I would like to see elderly or disabled to have an inexpensive and reliable mode of being transported to medical related facilities and out of town cultural events.
Availability
Red Oak Industry Park access intersection widened with turning lane. Green Lights Program - Stop lights in town programmed to only stop if cross traffic is near (timing and reduce pollution) and so emergency vehicles approaching forces light to change so they have direct uninhibited pass through;

side walks and cross-walks needed in many places in each of my communities. Bike trail from Stanton to Viking Lake!
Some intersections have no stop or yield signs at all in some of the neighborhoods. Very dangerous.
Sidewalks are awful
Put money into roads, sewers and big out of date infrastructure.
I am not a fan of SWITA relying so heavily on the local group of volunteers for public transportation within and outside of our community. SWITA should be providing this service or at least more of this local group's resources to do the job
scheduled transportation between communities - such as a shuttle to WalMart or other amenities not located in our community. For those needing a means to access/purchase certain items, this might be helpful. In a college town, this is critical for some students
Not that I'm aware of
none
no
No
no

# Sign in Sheet for Trails Meeting

2040 Long Range Transportation Plan  
 Non-Motorized  
 SWIPCO Office  
 August 14<sup>th</sup>, 2019  
 1:30-2:30 PM

Name	Position	Email
Beau Boeys	President of Friends of the Red Oak Trails	bboeye@redoakiaowa.com
STEVIE TURMAN	PRESIDENT OF MONTGOMERY COUNTY RECREATIONAL TRAILS	steviem@visibleedge.com
Laura Brisbois	Golden Hills	lance@goldenhillscrd.org
CALEB WHITEHOUSE	GOLDEN HILLS	caleb.whitehouse@goldenhillsrcrd.org
R Lendiness	Atlanta	RKL@mate.net
Payton Schnafers	NPS	payton_schnafers@partner.nps.gov
Brian Leaders	NPS	brian_leaders@NPS.GOV
Michelle Franks	Golden Hills	Michelle@goldenhillsrcrd.org

**Sign in Sheet for Roads, Highways and Bridges Meeting**

2040 Long Range Transportation Plan  
 Roads, Highways and Bridges  
 Red Oak Fire Station  
 July 9<sup>th</sup>, 2019  
 2:00-3:00 PM

Name	Position	Email
AJ Lyman	City Admin - Shen	ajlyman@shenandoah.gov
Gary M. Garrison	City Mgr/Clerk - Clarinda	gmarrison@cityofclarinda.com
Brad Wright	City Admin - Red Oak	redokadmin@redokia.city
Charles Bechtold	Cass County	cbechtold@casscountysc.gov
Paul Jane	City of Allentown	Voice 917@gmail.com

Sign in Sheet for Comprehensive Economic Development Strategy (CEDS) Plan Meeting

CEDS SWOT meeting 7-25-19

Name	Organization
John McCurdy	SWJPCO
Sherman Stubble	Swjpcd
Bailey Smith	Atlantic Chamber
Jennifer McEntaffer	Cass/Atlantic Dev. Corp.
Susan Shepherd	Fremont / Taber HomeTownLink
Shawna Silvis	Montgomery Co Dev. Corp.
Dani Briggs	SWJPCO
Elaine Farwell	Clarinda Chamber
Renec-Rickel	CEDC
Deb Frazier	Gov. STEM Council - SW Montgomery
Todd Valtin	SCECT
Charles Parkhurst	Shelby Co. Supv.

**Figure 51: Table-Population Change Estimates**

PEPTCOMP: Estimates of the Components of Resident Population Change: April 1, 2010 to July 1, 2017  
2017 Population Estimates

Geography	Cumulative Estimates of the Components of Population Change						
	April 1, 2010 to July 1, 2017						
	Total Population Change [1]	Natural Increase	Vital Events		Net Migration		
			Births	Deaths	Total	International [2]	Domestic
Cass County, Iowa	-811	-352	1,037	1,389	-455	6	-461
Fremont County, Iowa	-493	-85	561	646	-414	10	-424
Montgomery County, Iowa	-603	-209	846	1,055	-394	33	-427
Page County, Iowa	-719	-254	1,235	1,489	-462	72	-534

Annual Estimates of the Components of Population Change						
July 1, 2016 to July 1, 2017						
Total Population Change [1]	Natural Increase	Vital Events		Net Migration		
		Births	Deaths	Total	International [2]	Domestic
-35	-42	131	173	8	0	8
-12	6	84	78	-16	1	-17
3	2	120	118	2	9	-7
-111	-40	158	198	-71	16	-87

Source: 2017 ACS Estimates

**Figure 52: Table A-D--2010 Age Demographics**

**Cass County**

	Male	Female
	Estimate	Estimate
Total population	6,818	7,047
AGE		
Under 5 years	6.6%	6.0%
5 to 9 years	6.5%	5.5%
10 to 14 years	6.6%	5.8%
15 to 19 years	7.3%	6.1%
20 to 24 years	4.8%	4.2%
25 to 29 years	5.4%	4.8%
30 to 34 years	5.5%	5.0%
35 to 39 years	5.1%	5.5%
40 to 44 years	5.3%	4.4%
45 to 49 years	7.0%	7.5%
50 to 54 years	8.2%	7.6%
55 to 59 years	7.9%	6.7%
60 to 64 years	5.9%	6.9%
65 to 69 years	4.7%	5.3%
70 to 74 years	4.9%	5.4%
75 to 79 years	4.4%	4.4%
80 to 84 years	1.8%	4.3%
85 years and over	2.0%	4.5%

**Fremont County**

	Estimate	Estimate
Total population	3,672	3,701
AGE		
Under 5 years	5.8%	6.3%
5 to 9 years	5.9%	6.0%
10 to 14 years	6.8%	6.1%
15 to 19 years	6.9%	6.4%
20 to 24 years	5.0%	3.8%
25 to 29 years	4.8%	4.2%
30 to 34 years	5.0%	5.1%
35 to 39 years	4.9%	5.7%
40 to 44 years	6.1%	4.5%
45 to 49 years	7.7%	7.2%
50 to 54 years	8.4%	8.3%
55 to 59 years	7.9%	8.1%
60 to 64 years	7.2%	6.7%
65 to 69 years	5.3%	4.6%
70 to 74 years	3.7%	4.9%
75 to 79 years	4.6%	5.3%
80 to 84 years	1.6%	3.5%
85 years and over	2.3%	3.3%

**Montgomery County**

	Estimate	Estimate
Total population	5,198	5,512
AGE		
Under 5 years	5.4%	5.5%
5 to 9 years	6.6%	6.3%
10 to 14 years	7.0%	6.0%
15 to 19 years	7.5%	6.4%
20 to 24 years	3.9%	3.8%
25 to 29 years	4.7%	4.0%
30 to 34 years	5.1%	4.6%
35 to 39 years	5.1%	5.3%
40 to 44 years	6.2%	6.2%
45 to 49 years	8.3%	7.1%
50 to 54 years	8.2%	7.5%
55 to 59 years	8.5%	9.1%
60 to 64 years	6.8%	4.9%
65 to 69 years	3.8%	4.5%
70 to 74 years	4.5%	5.3%
75 to 79 years	3.6%	5.2%
80 to 84 years	2.9%	3.9%
85 years and over	2.0%	4.5%

**Page County**

	Estimate	Estimate
Total population	8,091	7,811
AGE		
Under 5 years	5.1%	6.1%
5 to 9 years	4.8%	4.9%
10 to 14 years	6.7%	5.8%
15 to 19 years	7.1%	6.9%
20 to 24 years	5.1%	4.7%
25 to 29 years	6.2%	4.1%

30 to 34 years	6.4%	5.7%
35 to 39 years	6.2%	5.4%
40 to 44 years	6.7%	4.7%
45 to 49 years	7.6%	6.8%
50 to 54 years	7.6%	7.4%
55 to 59 years	8.3%	8.1%
60 to 64 years	6.0%	5.7%
65 to 69 years	5.2%	5.5%
70 to 74 years	3.6%	4.2%
75 to 79 years	3.2%	5.3%
80 to 84 years	2.1%	3.7%
85 years and over	2.1%	5.1%

Source: 2010 Census

**Figure 53: Table--2017 Age Demographics**

S0101: AGE AND SEX  
2013-2017 American Community  
Survey 5-Year Estimates

Subject	Cass County, Iowa			Fremont County, Iowa		
	Total	Male	Female	Total	Male	Female
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Total population	13,327	6,586	6,741	6,985	3,453	3,532
AGE						
Under 5 years	739	358	381	410	215	195
5 to 9 years	962	477	485	367	161	206
10 to 14 years	792	465	327	498	269	229
15 to 19 years	719	380	339	386	222	164
20 to 24 years	710	392	318	353	170	183
25 to 29 years	608	306	302	282	146	136
30 to 34 years	725	354	371	341	177	164
35 to 39 years	711	374	337	396	192	204
40 to 44 years	753	393	360	409	207	202
45 to 49 years	746	373	373	371	183	188
50 to 54 years	973	469	504	504	251	253
55 to 59 years	991	483	508	638	332	306
60 to 64 years	983	501	482	530	257	273
65 to 69 years	793	394	399	485	256	229
70 to 74 years	668	295	373	305	131	174
75 to 79 years	659	287	372	259	111	148
80 to 84 years	338	153	185	220	88	132
85 years and over	457	132	325	231	85	146
SELECTED AGE CATEGORIES						
5 to 14 years	1,754	942	812	865	430	435
15 to 17 years	476	246	230	273	144	129
Under 18 years	2,969	1,546	1,423	1,548	789	759
18 to 24 years	953	526	427	466	248	218
15 to 44 years	4,226	2,199	2,027	2,167	1,114	1,053
16 years and over	10,678	5,189	5,489	5,627	2,765	2,862
18 years and over	10,358	5,040	5,318	5,437	2,664	2,773
21 years and over	9,997	4,837	5,160	5,255	2,564	2,691
60 years and over	3,898	1,762	2,136	2,030	928	1,102
62 years and over	3,429	1,495	1,934	1,749	787	962
65 years and over	2,915	1,261	1,654	1,500	671	829
75 years and over	1,454	572	882	710	284	426

SUMMARY INDICATORS						
Median age (years)	44.6	43.1	46.9	46.0	44.3	46.8
Sex ratio (males per 100 females)	97.7	(X)	(X)	97.8	(X)	(X)
Age dependency ratio	79.1	(X)	(X)	77.4	(X)	(X)
Old-age dependency ratio	39.2	(X)	(X)	38.1	(X)	(X)
Child dependency ratio	39.9	(X)	(X)	39.3	(X)	(X)
PERCENT ALLOCATED						
Sex	(X)	(X)	(X)	(X)	(X)	(X)
Age	(X)	(X)	(X)	(X)	(X)	(X)

S0101: AGE AND SEX  
2013-2017 American Community Survey  
5-Year Estimates

Subject	Montgomery County, Iowa			Page County, Iowa		
	Total	Male	Female	Total	Male	Female
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Total population	10,239	4,931	5,308	15,393	7,996	7,397
AGE						
Under 5 years	594	259	335	836	421	415
5 to 9 years	695	385	310	824	465	359
10 to 14 years	615	313	302	826	410	416
15 to 19 years	687	353	334	944	535	409
20 to 24 years	505	241	264	845	486	359
25 to 29 years	437	217	220	835	461	374
30 to 34 years	472	239	233	891	484	407
35 to 39 years	514	252	262	992	562	430
40 to 44 years	668	323	345	853	497	356
45 to 49 years	621	301	320	897	517	380
50 to 54 years	739	366	373	1,126	609	517
55 to 59 years	829	377	452	1,017	501	516
60 to 64 years	757	405	352	1,332	650	682
65 to 69 years	604	310	294	1,017	470	547
70 to 74 years	466	193	273	593	323	270
75 to 79 years	379	146	233	602	225	377
80 to 84 years	314	137	177	537	266	271
85 years and over	343	114	229	426	114	312
SELECTED AGE CATEGORIES						
5 to 14 years	1,310	698	612	1,650	875	775
15 to 17 years	445	238	207	632	341	291
Under 18 years	2,349	1,195	1,154	3,118	1,637	1,481
18 to 24 years	747	356	391	1,157	680	477
15 to 44 years	3,283	1,625	1,658	5,360	3,025	2,335
16 years and over	8,243	3,927	4,316	12,746	6,592	6,154
18 years and over	7,890	3,736	4,154	12,275	6,359	5,916
21 years and over	7,589	3,604	3,985	11,774	6,046	5,728
60 years and over	2,863	1,305	1,558	4,507	2,048	2,459
62 years and over	2,562	1,156	1,406	3,997	1,771	2,226
65 years and over	2,106	900	1,206	3,175	1,398	1,777

75 years and over	1,036	397	639	1,565	605	960
<b>SUMMARY INDICATORS</b>						
Median age (years)	44.5	43.3	45.9	44.4	42.5	46.8
Sex ratio (males per 100 females)	92.9	(X)	(X)	108.1	(X)	(X)
Age dependency ratio	77.0	(X)	(X)	69.2	(X)	(X)
Old-age dependency ratio	36.4	(X)	(X)	34.9	(X)	(X)
Child dependency ratio	40.6	(X)	(X)	34.3	(X)	(X)
<b>PERCENT ALLOCATED</b>						
Sex	(X)	(X)	(X)	(X)	(X)	(X)
Age	(X)	(X)	(X)	(X)	(X)	(X)

Source: 2017 ACS Estimates

**Figure 54: Table--2017 Economic Characteristics**

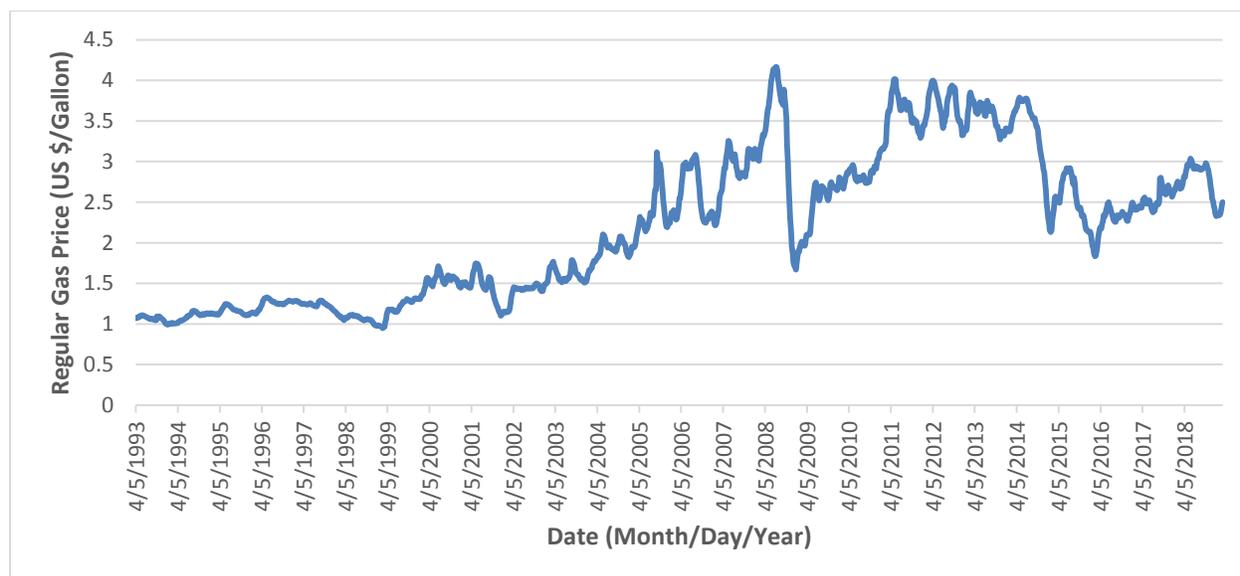
DP03: SELECTED ECONOMIC CHARACTERISTICS  
2013-2017 American Community Survey 5-Year Estimates

Subject	Cass County, Iowa	Fremont County, Iowa	Montgomery County, Iowa	Page County, Iowa
	Estimate	Estimate	Estimate	Estimate
<b>EMPLOYMENT STATUS</b>				
Population 16 years and over	10,678	5,627	8,243	12,746
In labor force	6,711	3,472	5,198	7,526
Civilian labor force	6,711	3,472	5,187	7,513
Employed	6,544	3,363	4,838	7,220
Unemployed	167	109	349	293
Armed Forces	0	0	11	13
Not in labor force	3,967	2,155	3,045	5,220
Civilian labor force	6,711	3,472	5,187	7,513
Unemployment Rate	(X)	(X)	(X)	(X)
<b>COMMUTING TO WORK</b>				
Workers 16 years and over	6,358	3,306	4,793	7,110
Car, truck, or van -- drove alone	4,961	2,739	3,813	5,767
Car, truck, or van -- carpooled	690	273	453	640
Public transportation (excluding taxicab)	47	0	21	8
Walked	304	114	194	287
Other means	52	61	79	125
Worked at home	304	119	233	283
Mean travel time to work (minutes)	18.4	24.5	19.0	13.9
<b>INDUSTRY</b>				
Civilian employed population 16 years and over	6,544	3,363	4,838	7,220
Agriculture, forestry, fishing and hunting, and mining	567	364	349	389
Construction	567	168	309	350
Manufacturing	935	462	870	1,288
Wholesale trade	162	92	120	166
Retail trade	774	318	641	1,126
Transportation and warehousing, and utilities	316	218	245	289

Information	162	26	153	150
Finance and insurance, and real estate and rental and leasing	365	222	170	221
Professional, scientific, and management, and administrative and waste management services	302	108	173	289
Educational services, and health care and social assistance	1,443	924	1,172	2,023
Arts, entertainment, and recreation, and accommodation and food services	407	178	213	397
Other services, except public administration	386	138	301	283
Public administration	158	145	122	249
<b>INCOME AND BENEFITS (IN 2017 INFLATION-ADJUSTED DOLLARS)</b>				
Total households	6,053	2,997	4,614	6,405
Less than \$10,000	391	147	282	432
\$10,000 to \$14,999	374	143	419	435
\$15,000 to \$24,999	794	326	643	761
\$25,000 to \$34,999	660	316	561	761
\$35,000 to \$49,999	1,076	435	659	971
\$50,000 to \$74,999	1,194	682	948	1,294
\$75,000 to \$99,999	746	321	485	746
\$100,000 to \$149,999	547	382	438	764
\$150,000 to \$199,999	152	143	93	144
\$200,000 or more	119	102	86	97
Median household income (dollars)	45,637	54,430	43,674	46,708
Mean household income (dollars)	58,039	69,843	55,355	60,121
Per capita income (dollars)	26,427	29,813	25,005	25,739

Source: 2017 ACS Estimates

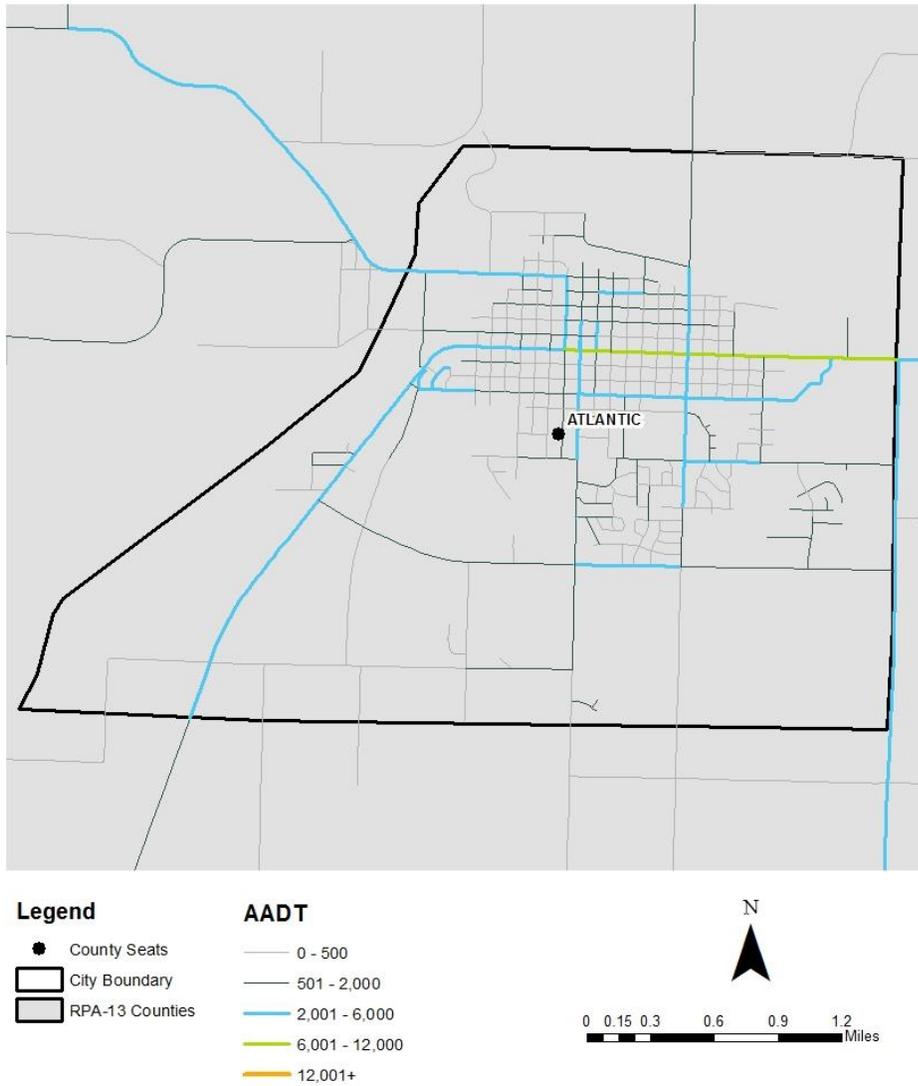
**Figure 55: Graph--Historic Average Gas Prices for the Midwest USA (1993-2018)**



Source: U.S. Energy Information Administration

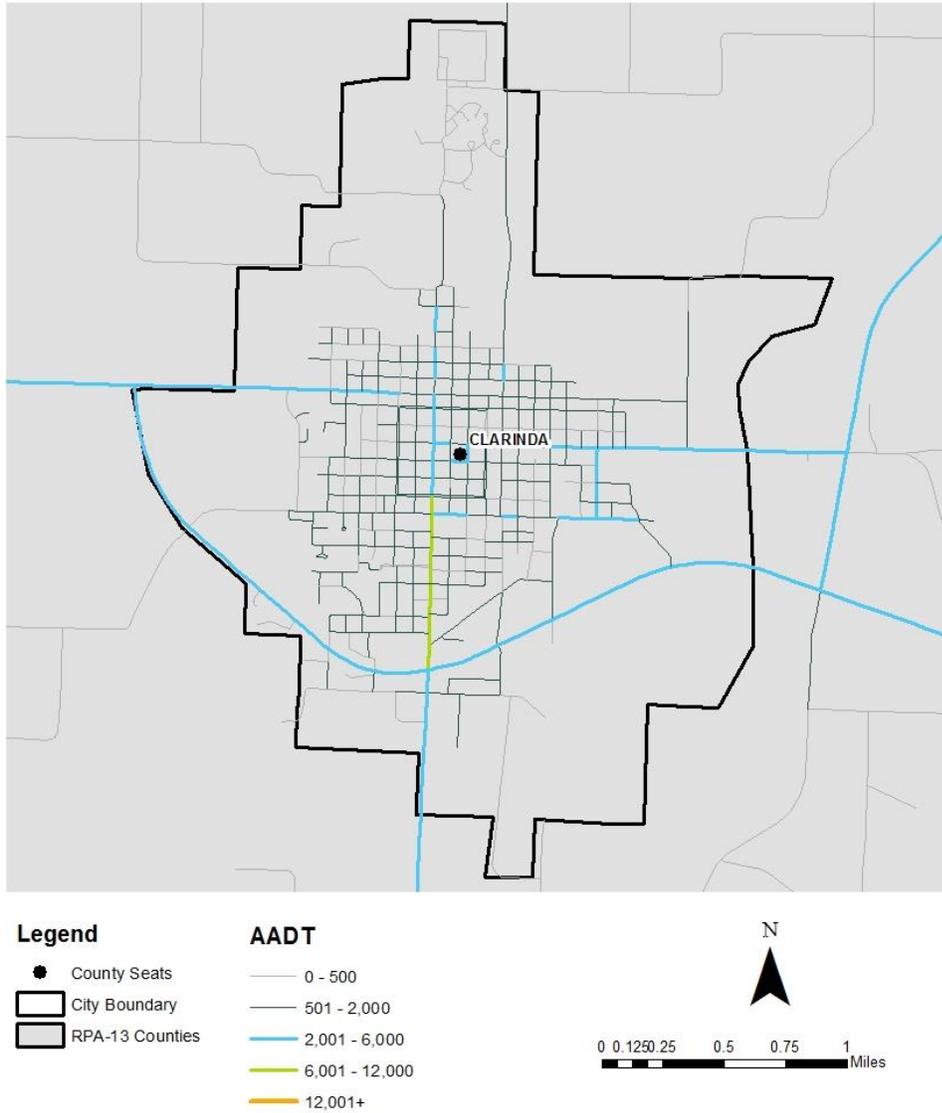
**Figure 56 A-D: Map – Annual Average Daily Traffic Count for Urban Cities - All Vehicles (2018)**

**Figure 56 A: Atlantic AADT**



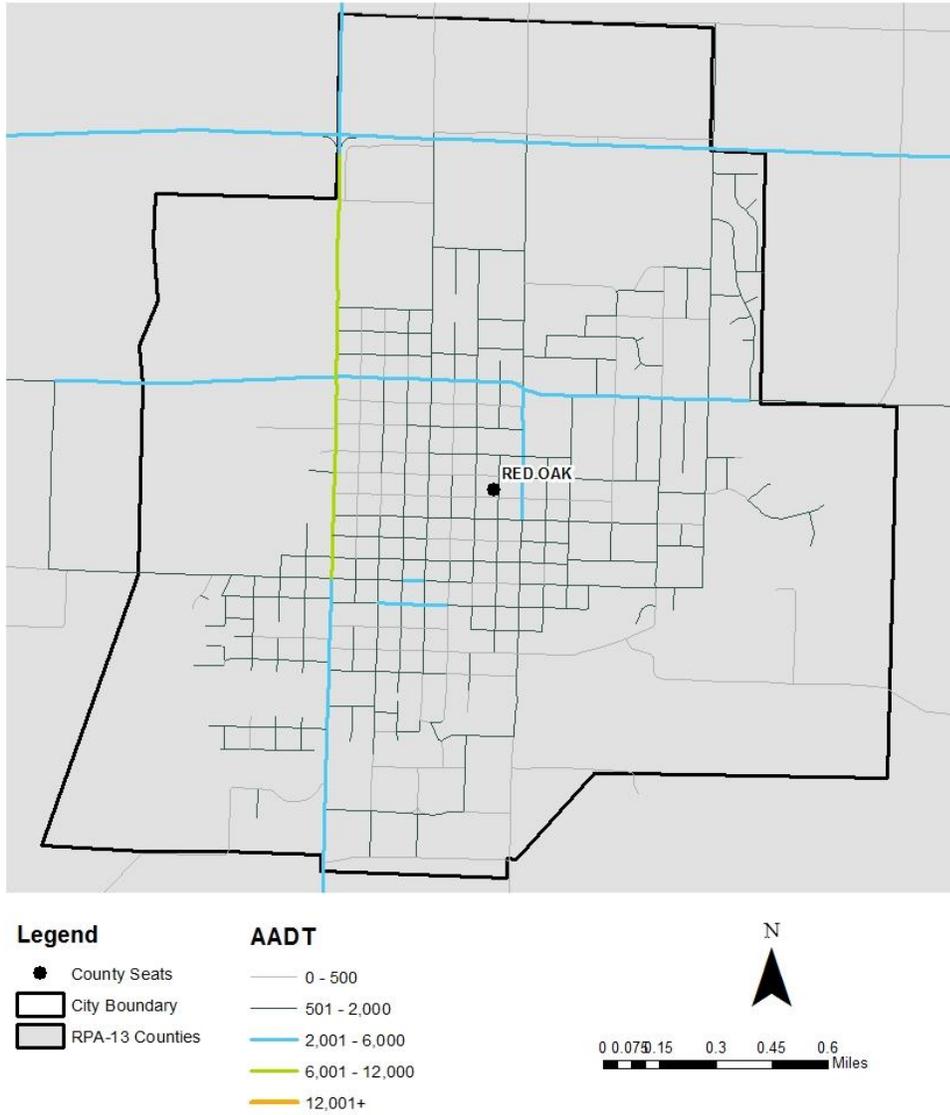
**Source:** Iowa Department of Transportation

**Figure 56 B: Clarinda AADT**



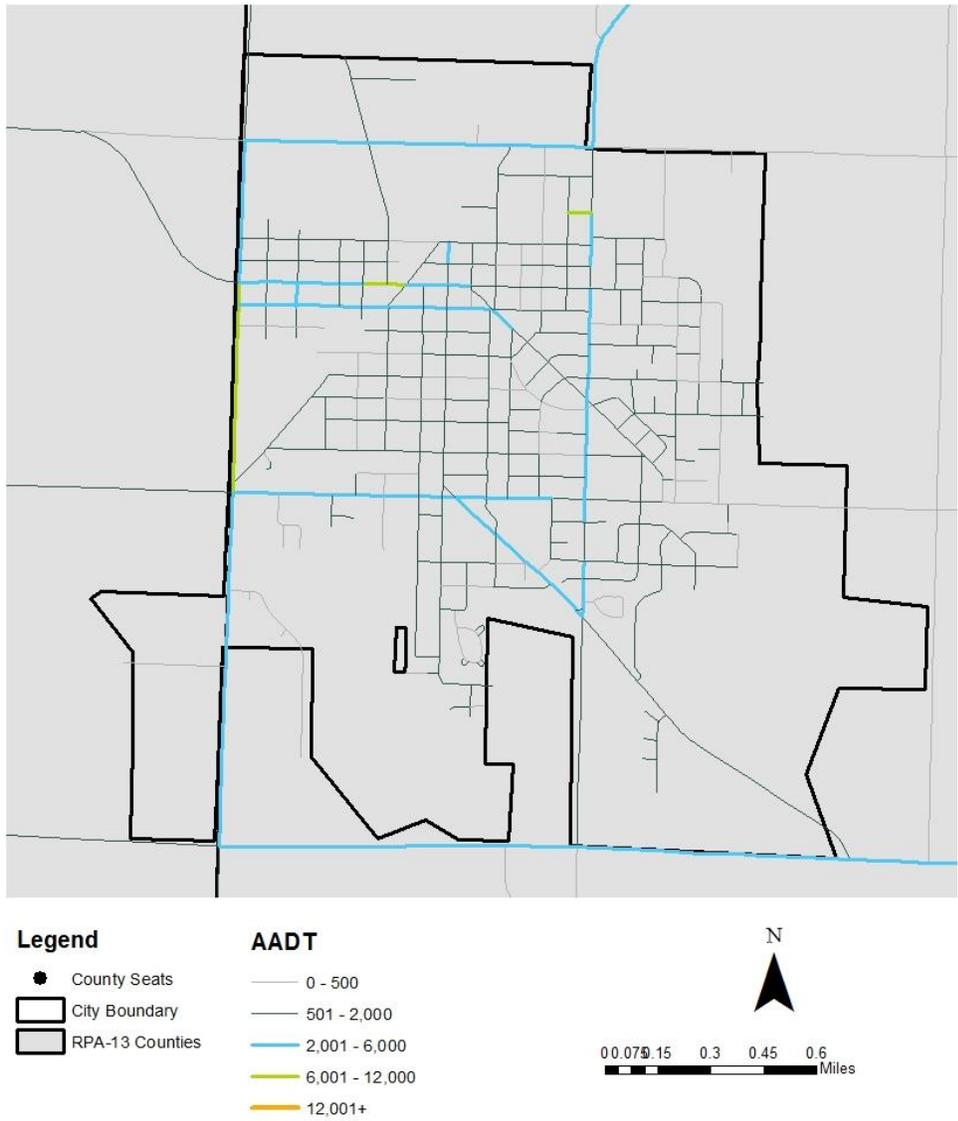
**Source:** Iowa Department of Transportation

**Figure 56 C: Red Oak AADT**



**Source:** Iowa Department of Transportation

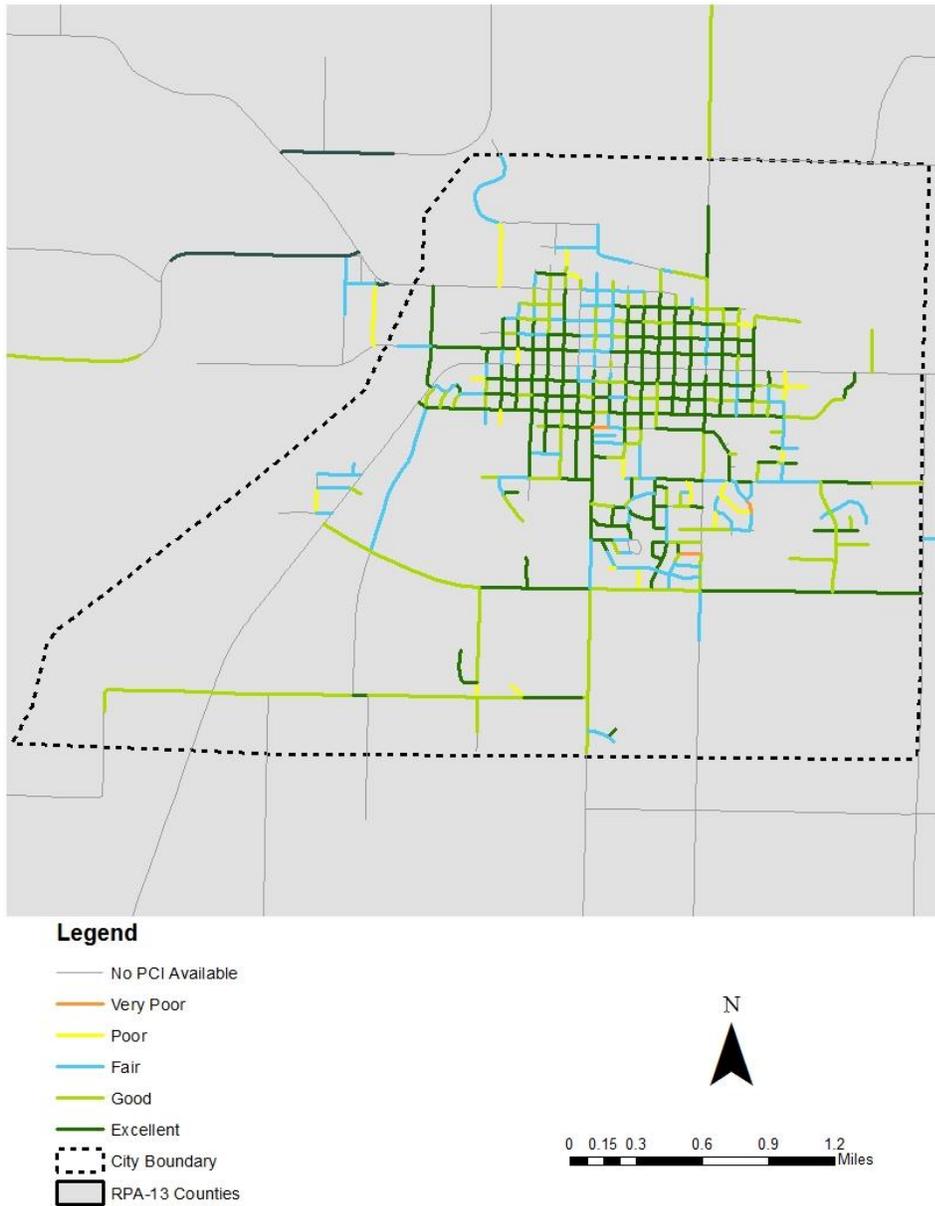
**Figure 56 D: Shenandoah AADT**



**Source:** Iowa Department of Transportation

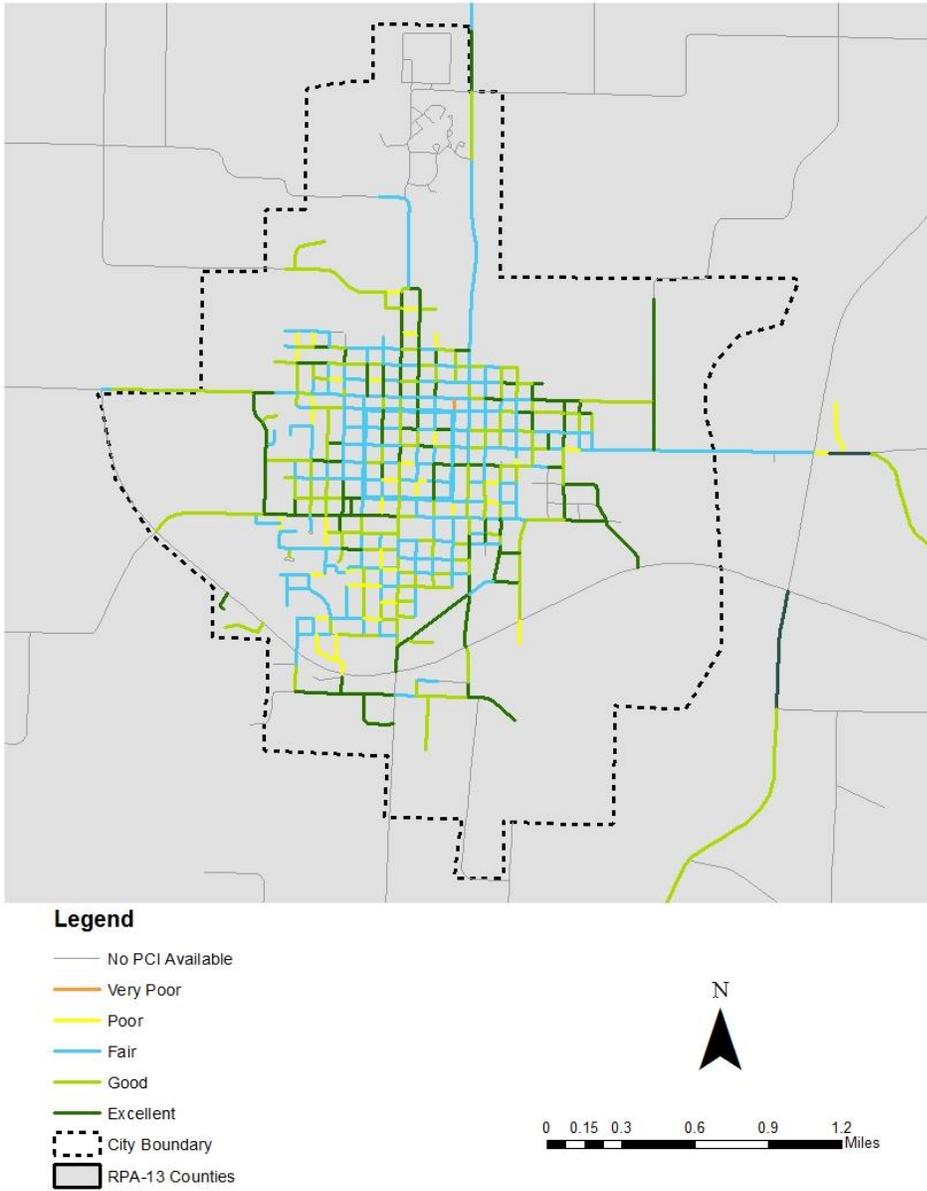
**Figure 57 A-D: Map – Pavement Condition Index (PCI) for Urban Cities (2017)**

**Figure 57 A: Atlantic PCI**



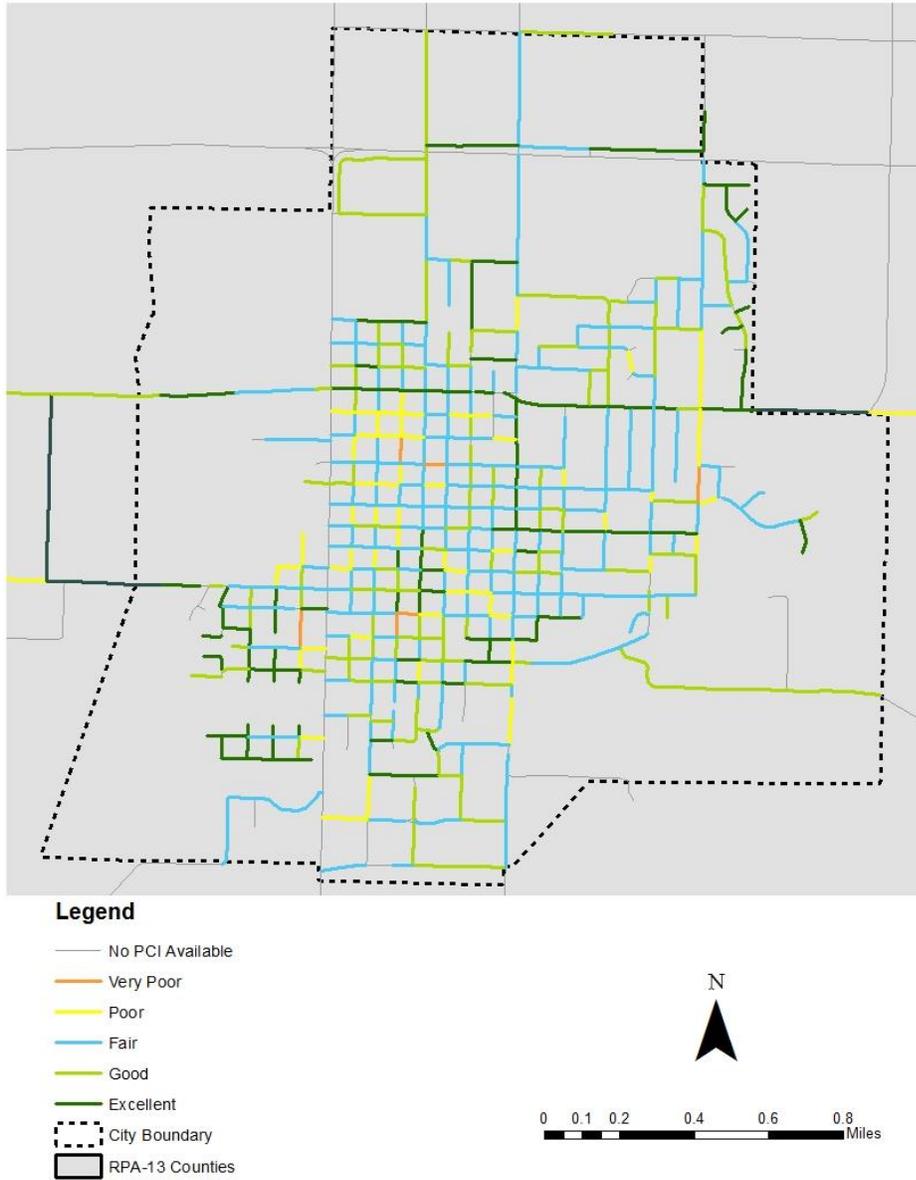
**Sources:** Iowa Department of Transportation; Institute for Transportation (Iowa State University)

**Figure 57 B: Clarinda PCI**



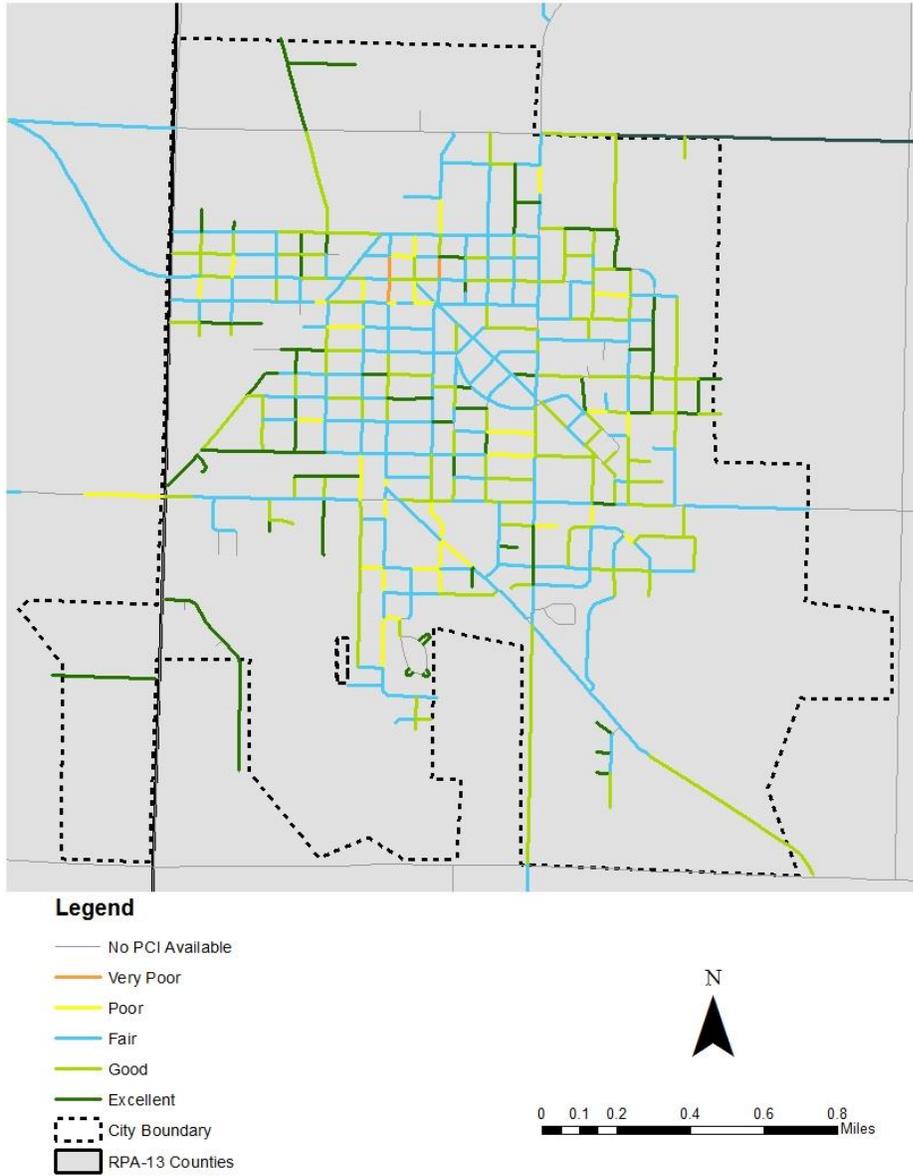
**Sources:** Iowa Department of Transportation; Institute for Transportation (Iowa State University)

**Figure 57 C: Red Oak PCI**



**Sources:** Iowa Department of Transportation; Institute for Transportation (Iowa State University)

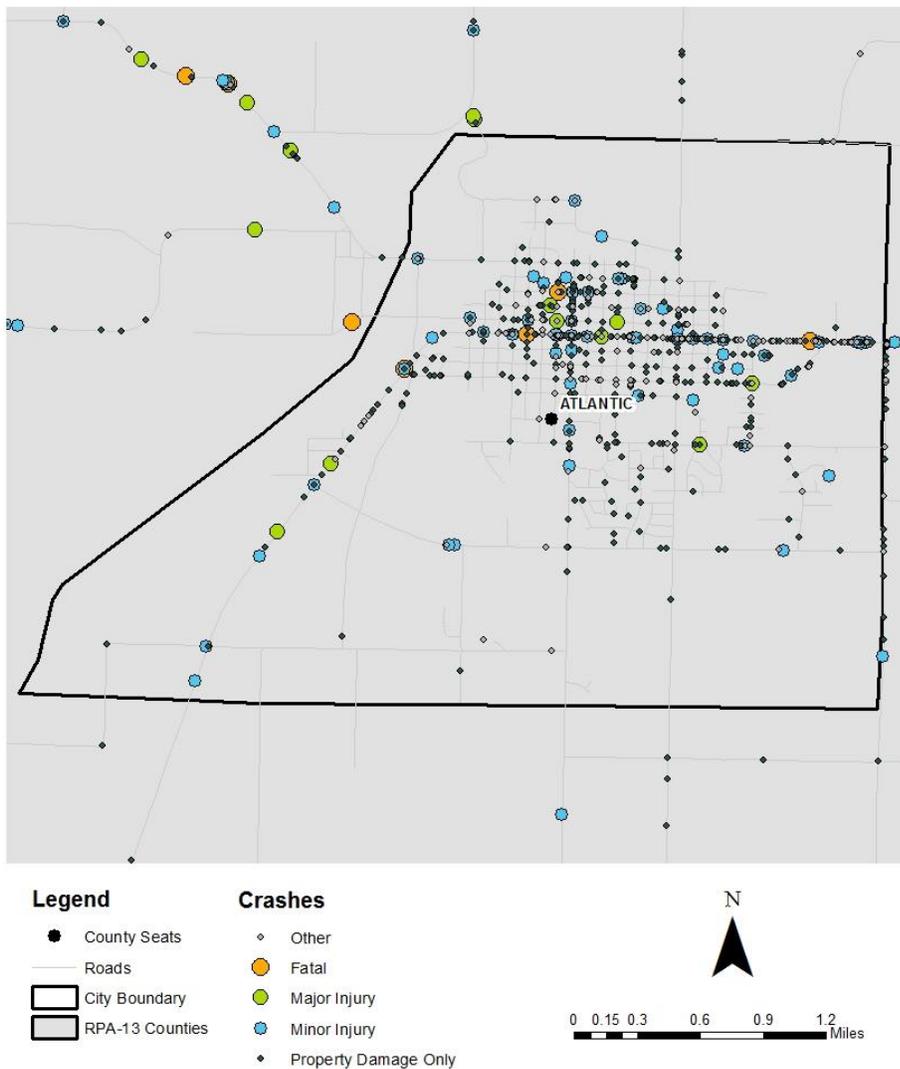
**Figure 57 D: Shenandoah PCI**



**Sources:** Iowa Department of Transportation; Institute for Transportation (Iowa State University)

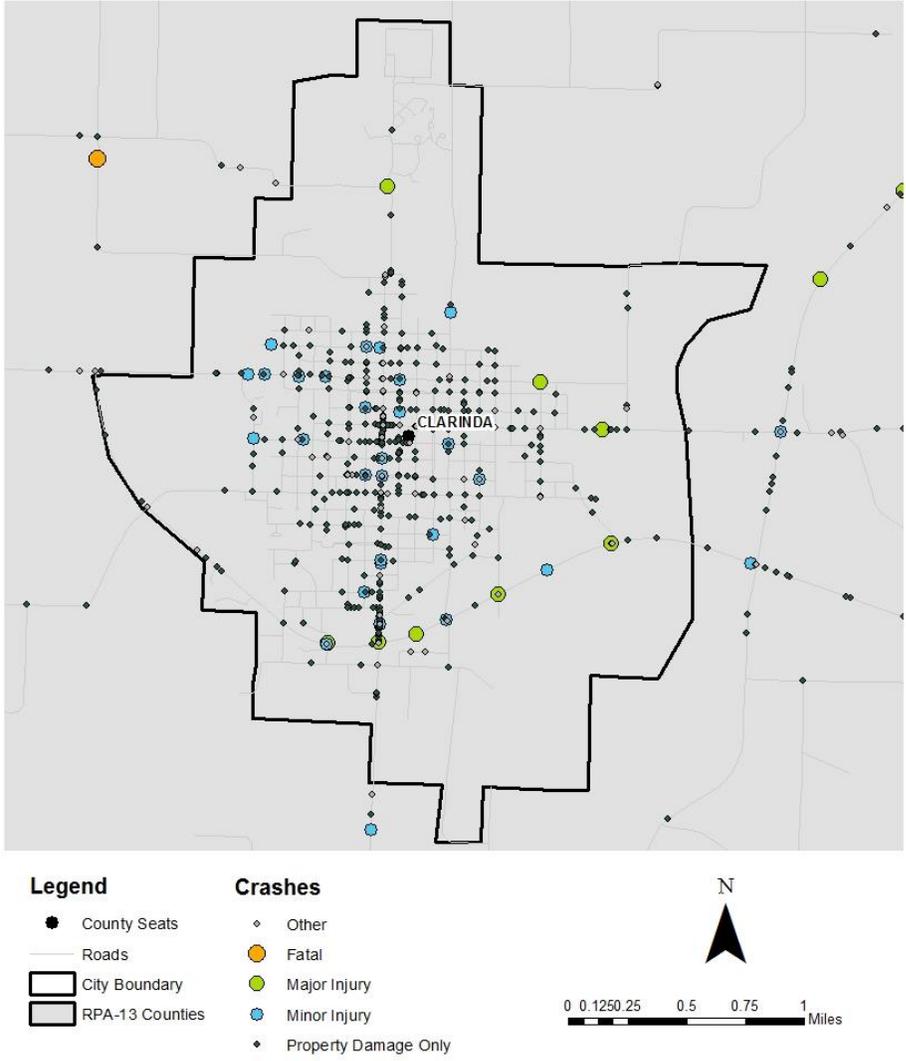
Figure 58 A-D: Map – Reported Vehicle Collisions in Urban Cities (2008-2018)

Figure 58 A: Collisions in Atlantic



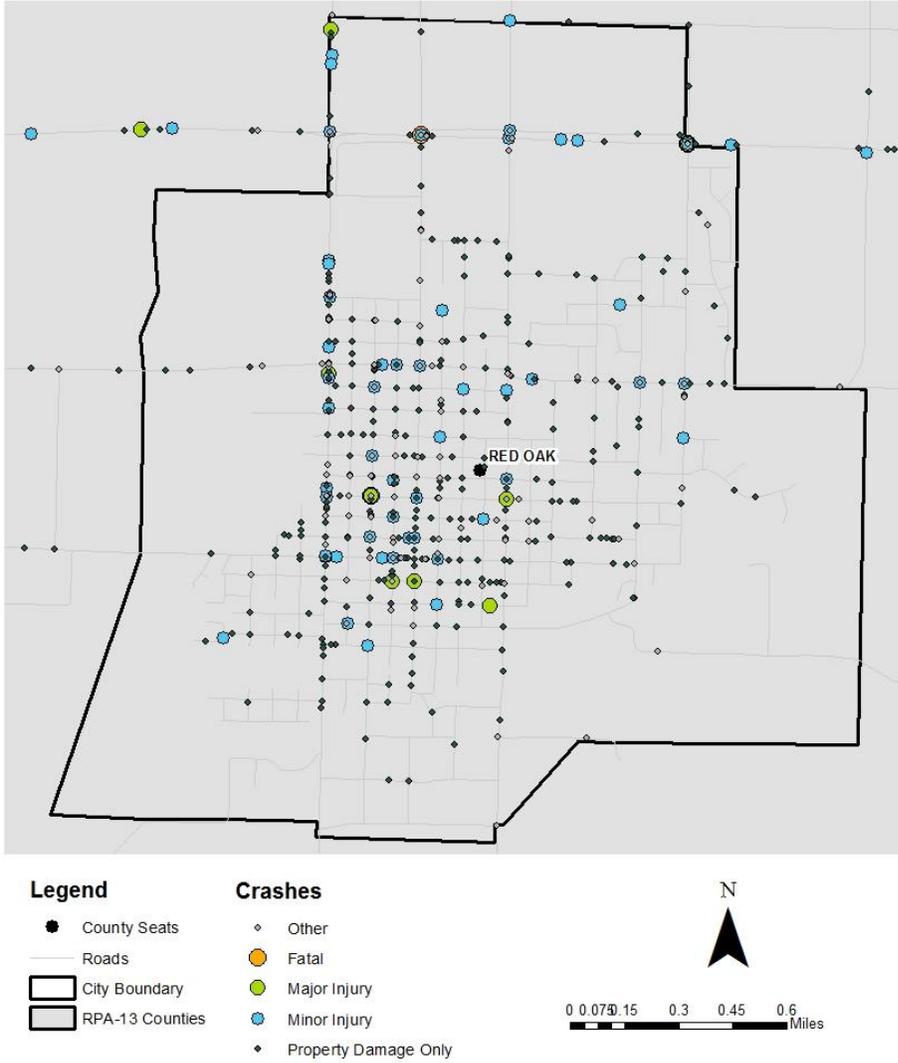
Source: Iowa Department of Transportation

**Figure 58 B: Collisions in Clarinda**



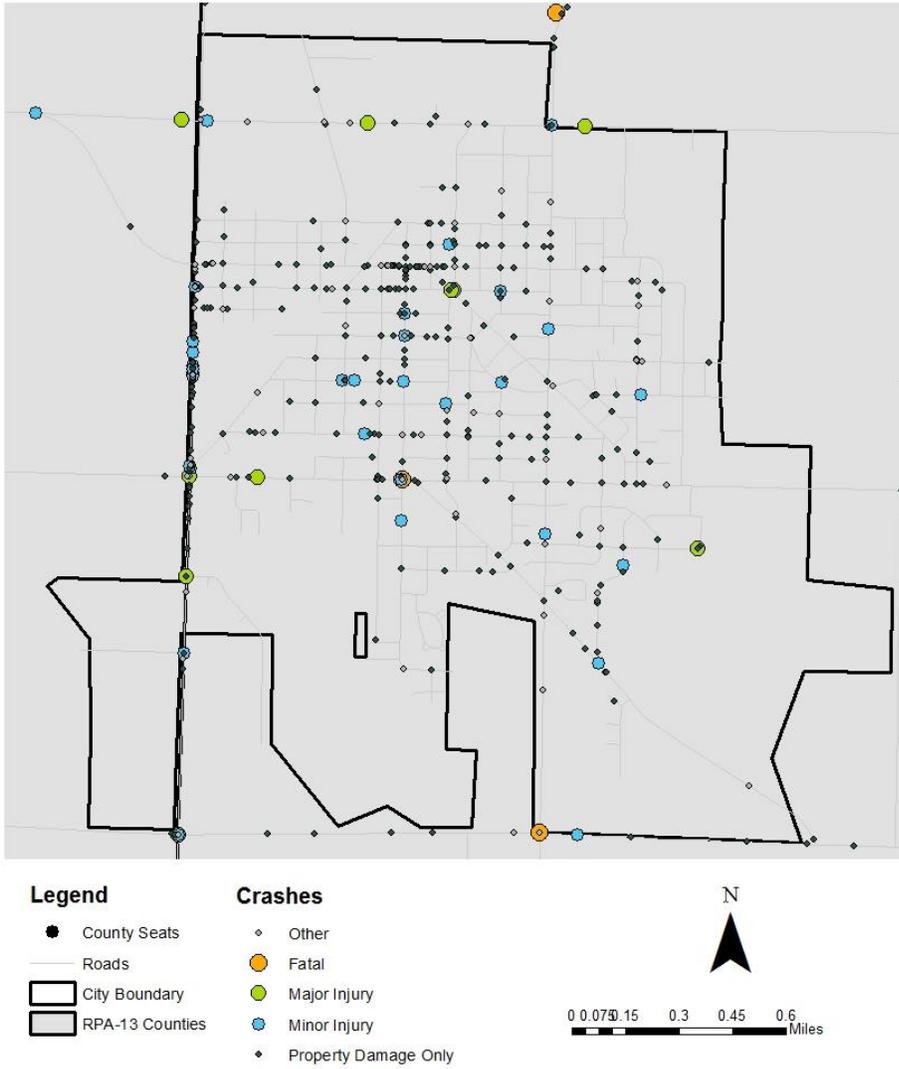
**Source:** Iowa Department of Transportation

**Figure 58 C: Collisions in Red Oak**



**Source:** Iowa Department of Transportation

**Figure 58 D: Collisions in Shenandoah**



**Source:** Iowa Department of Transportation

**Figure 59: Table – SWITA Vehicle Inventory 2019**

Make	Model	Type	Year	Passengers	Wheelchair Accessible
Ford	El Dorado	Light Duty Bus	2007	25	
Ford	Supreme	Light Duty Bus	2008	18	2
Ford	Startrans Supreme	Light Duty Bus	2008	18	2
Ford	El Dorado	Light Duty Bus	2008	18	2
Ford	El Dorado	Light Duty Bus	2008	8	3
Ford	El Dorado	Light Duty Bus	2008	8	3
Ford	El Dorado	Light Duty Bus	2008	8	3
Ford	El Dorado	Light Duty Bus	2008	8	3
Ford	El Dorado	Light Duty Bus	2010	18	2
Ford	El Dorado	Light Duty Bus	2010	18	2
Ford	El Dorado	Light Duty Bus	2010	18	2
Ford	El Dorado	Light Duty Bus	2010	18	2
Ford	El Dorado	Light Duty Bus	2010	18	2
Ford	El Dorado	Light Duty Bus	2010	18	2
Ford	El Dorado	Light Duty Bus	2011	18	2
Ford	El Dorado	Light Duty Bus	2011	18	2
Ford	El Dorado	Light Duty Bus	2011	18	2
Ford	El Dorado	Light Duty Bus	2011	18	2
Ford	El Dorado	Light Duty Bus	2011	18	2
Ford	El Dorado	Light Duty Bus	2011	18	2
Ford	Glaval	Light Duty Bus	2012	20	2
Ford	Glaval	Light Duty Bus	2012	20	2
Ford	Glaval	Light Duty Bus	2012	20	2
Ford	Glaval	Light Duty Bus	2012	20	2
Ford	El Dorado	Light Duty Bus	2013	20	2
Ford	El Dorado	Light Duty Bus	2013	20	2
Ford	El Dorado	Light Duty Bus	2013	20	2
Ford	El Dorado	Light Duty Bus	2012	20	2
Ford	Glaval	Light Duty Bus	2014	18	2
Ford	Glaval	Light Duty Bus	2014	18	2
Ford	Glaval	Light Duty Bus	2014	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2015	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2015	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2015	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2015	24	2
Ford	E450 Cutaway	Light Duty Bus	2016	18	2
Ford	E450 Cutaway	Light Duty Bus	2016	18	2
Ford	Goshen	Light Duty Bus	2009	19	2
Ford	Goshen	Light Duty Bus	2009	19	2
Ford	ElDorado LD	Light Duty Bus	2017	18	2
Ford	ElDorado WB ADA	Light Duty Bus	2017	18	2
Ford	ElDorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Goshen Coach	Light Duty Bus	2017	18	2
Ford	Goshen Coach	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2

Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado Aerotech	Light Duty Bus	2017	18	2
Ford	Eldorado LD	Light Duty Bus	2019	18	2
Ford	Eldorado	Light Duty Bus	2019	18	2
Ford	Eldorado	Light Duty Bus	2019	18	2
Ford	Eldorado	Light Duty Bus	2019	18	2
Ford	AeroLite 320	Medium Duty Bus	2016	33	
Ford	Champion Defender	Medium Duty Bus	2018	37	2
Ford	Freightliner Glaval	Medium Duty Bus	2018	40	2
Dodge	Durango	SUV	2011	6	
Dodge	Caravan ADA	Minivan	2010	6	1
Dodge	Caravan ADA	Minivan	2010	6	1
Dodge	Caravan ADA	Minivan	2010	6	1
Dodge	Caravan ADA	Minivan	2010	6	1
Dodge	Caravan ADA	Minivan	2010	6	1
Plymouth	Grand Voyager	Minivan	1999	6	
Ford	Freestar SE	Minivan	2006	6	
Dodge	ADA Minivan	Minivan	2016	6	1
Dodge	ADA Minivan	Minivan	2016	6	1
	Minivan	Minivan	2016	6	
Dodge	Braun Minivan	Minivan	2016	6	
	MV-1	Minivan	2016	6	
Dodge	Grand Caravan SE	Minivan	2007	6	
Toyota	Sienna	Minivan	2015	6	
Nissan	Quest	Minivan	2016	6	
GMC	Acadia	Minivan	2014	6	
Chrysler	Town and Country	Minivan	2004	6	
	MV-1 Deluxe	Minivan	2015	6	
	MV-1 DX	Minivan	2015	6	
KIA	Sedona	Minivan	2012	6	
Chrysler	Town and Country	Minivan	2010	6	
Chevy	Venture ADA	Minivan	2003	6	1
Dodge	Grand Caravan SE	Minivan	2015	6	
Dodge	Grand Caravan SE	Minivan	2015	6	
Dodge	Grand Caravan SE	Minivan	2013	6	
Dodge	Grand Caravan SE	Minivan	2014	6	
Dodge	Grand Caravan SE	Minivan	2015	6	
Dodge	Grand Caravan	Minivan	2019	6	
Dodge	Grand Caravan	Minivan	2019	6	
Dodge	Grand Caravan ADA	Minivan	2019	6	1
Dodge	Grand Caravan ADA	Minivan	2019	6	1
Ford	Taurus	Sedan	2012	4	
Chevrolet	Malibu LS	Sedan	2012	4	
Chevy	Impala	Sedan	2014	4	
Chevy	Impala	Sedan	2014	4	

Source: Southwest Iowa Transit Agency

**Figure 60: Table – State and Federal Status of Threatened and Endangered Species**

County	Common Name	Scientific Name	Class	State Status	Federal Status
Cass	Henslow's Sparrow	<i>Ammodramus henslowii</i>	Birds	T	
Cass	Large-leaf Pondweed	<i>Potamogeton amplifolius</i>	Plants (Monocots)	S	
Cass/Fremont	Nodding Thistle	<i>Cirsium undulatum</i>	Plants (Dicots)	S	
Cass/Fremont/Montgomery/Page	Bald Eagle	<i>Haliaeetus leucocephalus</i>	Birds	S	
Cass/Fremont/Montgomery/Page	Barn Owl	<i>Tyto alba</i>	Birds	E	
Cass/Fremont/Page	Zebra Swallowtail	<i>Eurytides marcellus</i>	Insects	S	
Cass/Page	Long-eared Owl	<i>Asio otus</i>	Birds	T	
Fremont	Black Tern	<i>Chidonias niger</i>	Birds	S	
Fremont	Least Tern	<i>Sterna antillarum</i>	Birds	E	E
Fremont	Northern Harrier	<i>Circus cyaneus</i>	Birds	E	
Fremont	Red-shouldered Hawk	<i>Buteo lineatus</i>	Birds	E	
Fremont	Short-eared Owl	<i>Asio flammeus</i>	Birds	E	
Fremont	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	Fish	E	E
Fremont	Dusted Skipper	<i>Atrytonopsis</i>	Insects	S	
Fremont	Hickory Hairstreak	<i>Satyrium caryaevorum</i>	Insects	S	
Fremont	Leonard's Skipper	<i>Hesperia leonardus</i>	Insects	S	
Fremont	Olympia Marble	<i>Euchloe olympia</i>	Insects	S	
Fremont	Ottoe Skipper	<i>Hesperia ottoe</i>	Insects	S	
Fremont	Regal Fritillary	<i>Speyeria idalia</i>	Insects	S	
Fremont	Wild Indigo Dusky Wing	<i>Erynnis baptisiae</i>	Insects	S	
Fremont	Zabulon Skipper	<i>Poanes zabulon</i>	Insects	S	
Fremont	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Mammals		T
Fremont	Plains Pocket Mouse	<i>Perognathus flavescens</i>	Mammals	E	
Fremont	Biscuit Root	<i>Lomatium foeniculaceum</i>	Plants (Dicots)	E	

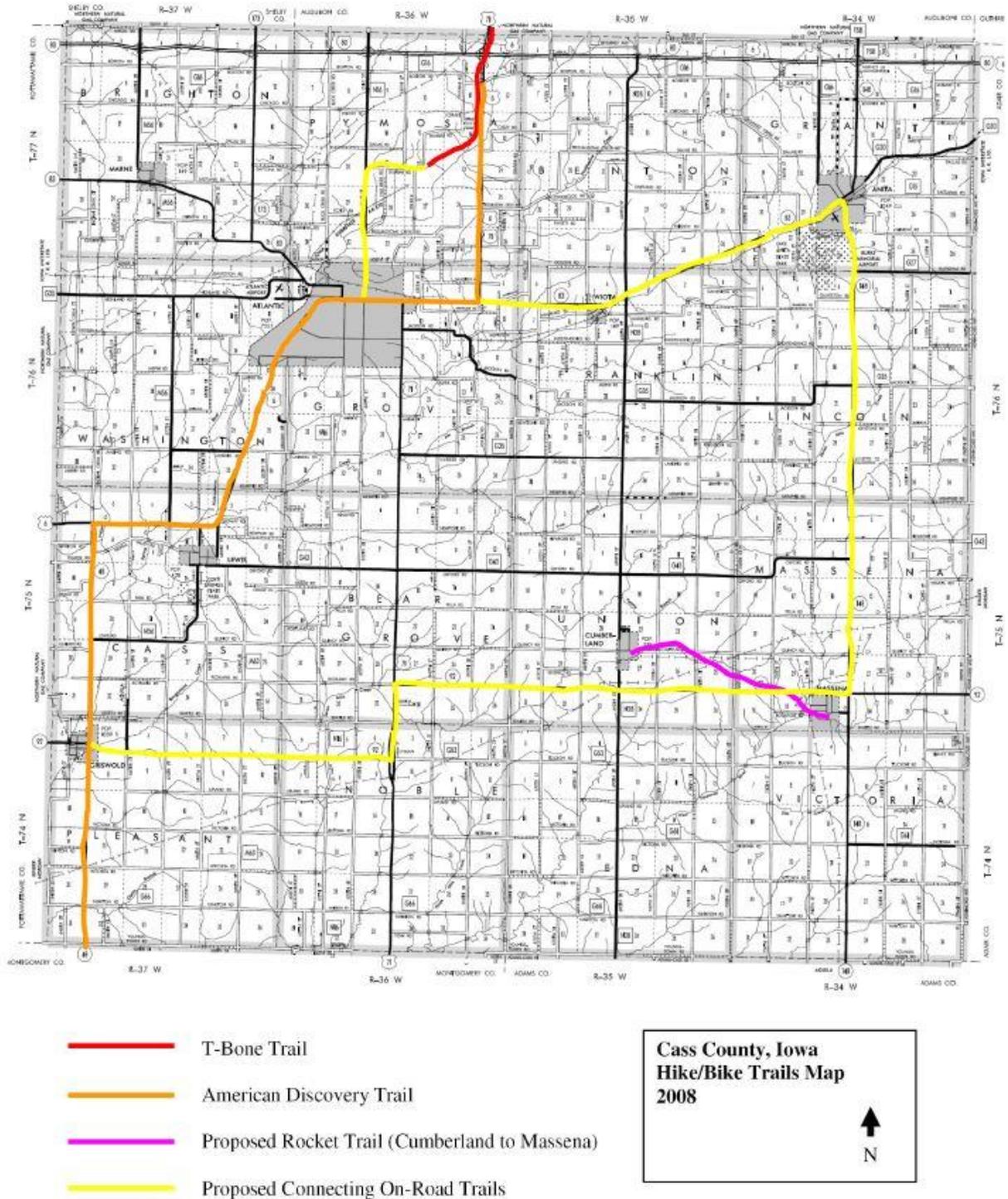
Fremont	Butterweed	Senecio glabellus	Plants (Dicots)	S	
Fremont	Cobaea Penstemon	Penstemon cobae	Plants (Dicots)	S	
Fremont	Cutleaf Water-milfoil	Myriophyllum pinnatum	Plants (Dicots)	S	
Fremont	False Loosestrife	Ludwigia peploides	Plants (Dicots)	S	
Fremont	Paw Paw	Asimina triloba	Plants (Dicots)	S	
Fremont	Raccoon Grape	Ampelopsis cordata	Plants (Dicots)	S	
Fremont	Sensitive Briar	Schrankia nuttallii	Plants (Dicots)	S	
Fremont	Three-seeded Mercury	Acalypha ostryifolia	Plants (Dicots)	S	
Fremont	Toothcup	Rotala ramosior	Plants (Dicots)	S	
Fremont	White Evening Primrose	Oenothera speciosa	Plants (Dicots)	S	
Fremont	Blue Mud-plantain	Heteranthera limosa	Plants (Monocots)	S	
Fremont	Glomerate Sedge	Carex aggregata	Plants (Monocots)	S	
Fremont	Spring Ladies'-tresses	Spiranthes vernalis	Plants (Monocots)	T	
Fremont	Umbrella Grass	Fuirena simplex	Plants (Monocots)	S	
Fremont	Prairie Moonwort	Botrychium campestre	Plants (Pteridophytes)	S	
Fremont	Blanding's Turtle	Emydoidea blandingii	Reptiles	T	
Fremont	Bullsnake	Pituophis catenifer sayi	Reptiles	S	
Fremont	Great Plains Skink	Eumeces obsoletus	Reptiles	E	
Fremont	Ornate Box Turtle	Terrapene Ornata	Reptiles	T	
Fremont	Smooth Green Snake	Liochlorophis vernalis	Reptiles	S	
Fremont	Speckled Kingsnake	Lampropeltis getulus	Reptiles	T	

Fremont	Western Massasauga	Sistrurus tergeminus	Reptiles	E	
Fremont	Western Worm Snake	Carphophis amoenus	Reptiles	T	
Fremont/Montgomery/Page	Southern Bog Lemming	Synaptomys cooperi	Mammals	T	
Fremont/Page	Silvery Blue	Glaucopsyche lygdamus	Insects	T	
Fremont/Page	Small Morning Glory	Ipomoea lacunosa	Plants (Dicots)	S	
Fremont/Page	Spreading Yellow Cress	Rorippa sinuata	Plants (Dicots)	S	
Montgomery	Great Plains Ladies'-tresses	Spiranthes magnicamporum	Plants (Monocots)	S	
Montgomery	Philadelphia Panic Grass	Panicum philadelphicum	Plants (Monocots)	T	
Montgomery	Richardson Sedge	Carex richardsonii	Plants (Monocots)	S	
Montgomery	Small White Lady's Slipper	Cypripedium candidum	Plants (Monocots)	S	
Montgomery/Page	Bigroot Prickly-pear	Opuntia macrorhiza	Plants (Dicots)	E	
Page	Edwards' Hairstreak	Satyrrium edwardsii	Insects	S	
Page	Purplish Copper	Lycaena helloides	Insects	S	
Page	Blue Wild Indigo	Baptisia australis	Plants (Dicots)	S	
Page	Clustered Poppy-mallow	Callirhoe alcaeoides	Plants (Dicots)	T	
Page	Spring Avens	Geum vernum	Plants (Dicots)	S	
Page	Broom Sedge	Andropogon virginicus	Plants (Monocots)	S	
Page	Tumble Grass	Schedonnardus paniculatus	Plants (Monocots)	S	

Source: Iowa Department of Natural Resources

**Figure 61 A-D: County Trail Plan Maps**

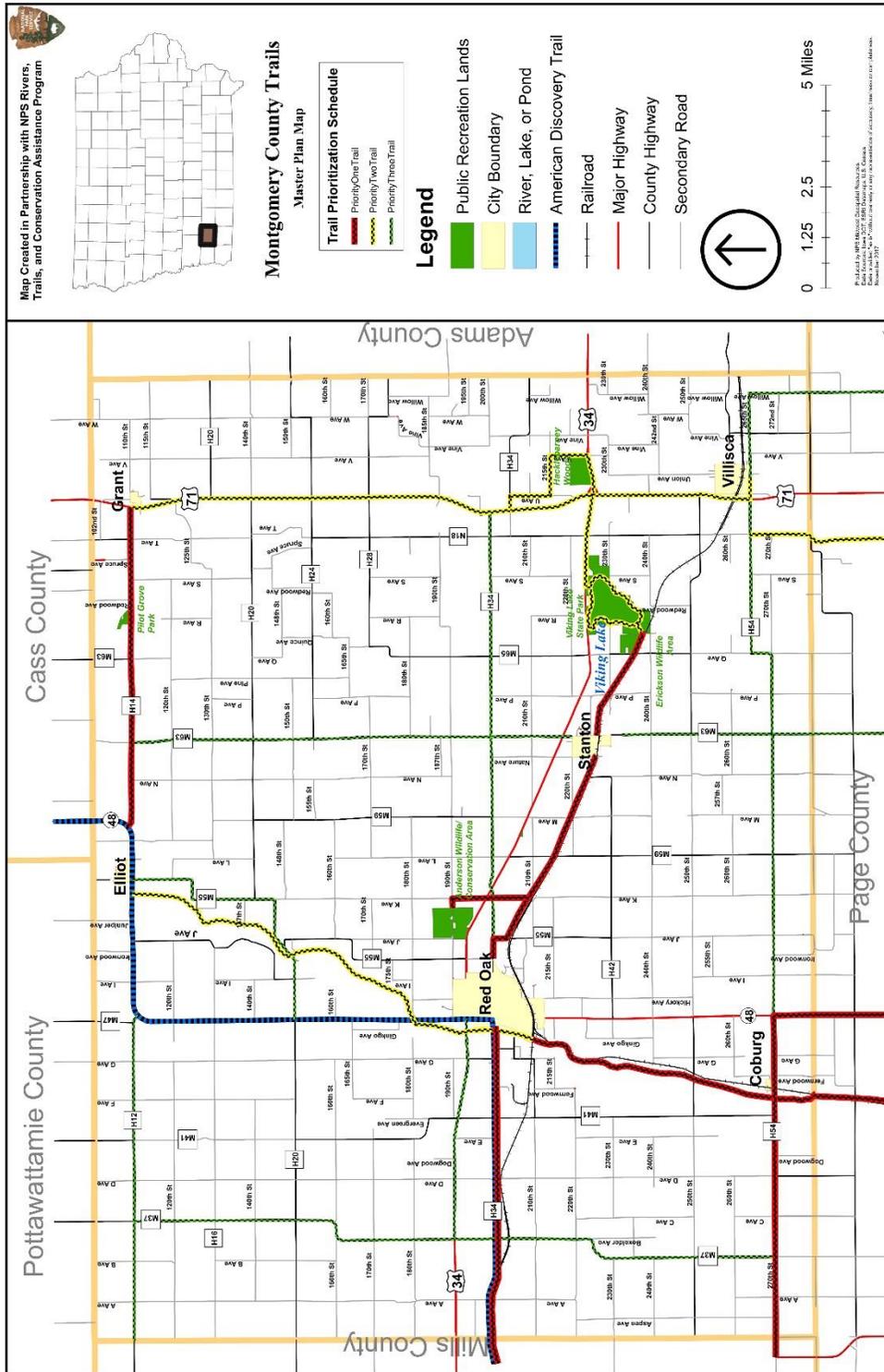
**Figure 61 A: Cass County**



Source: Cass County Trails Plan, 2008



Figure 61 C: Montgomery County

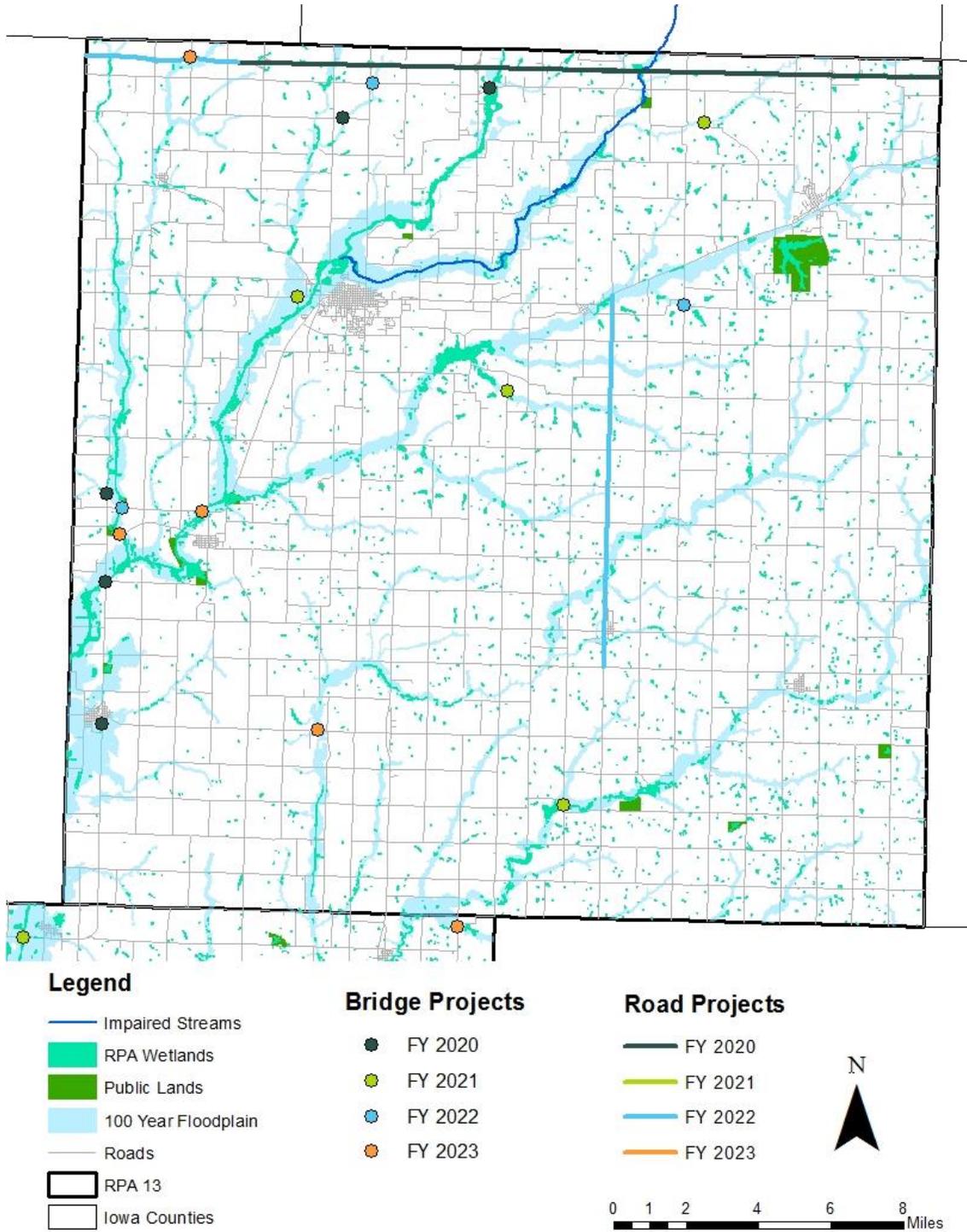


Source: Montgomery County Trails Plan, 2017



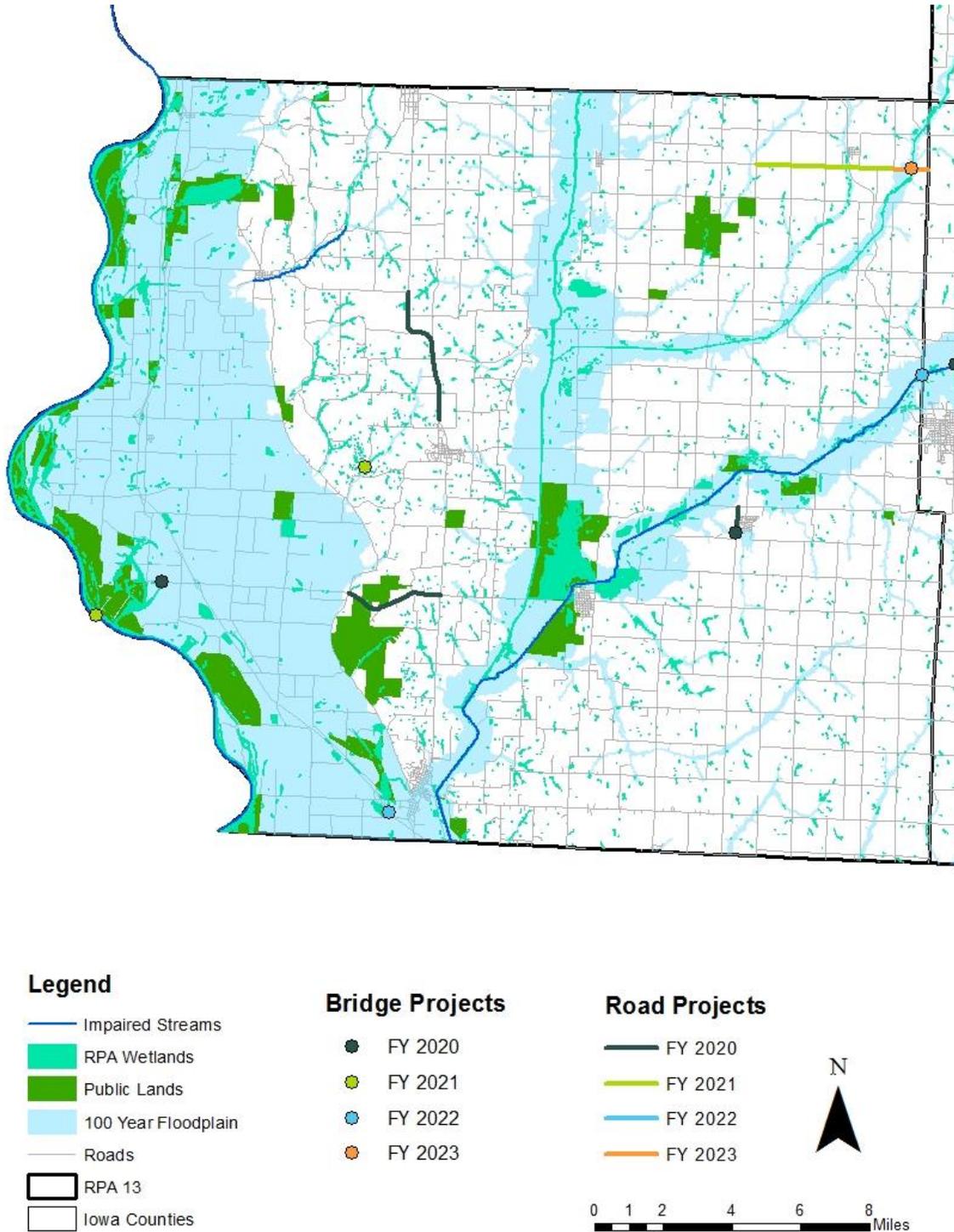
**Figure 62 A-D: Map – Planned Future Projects (FY 2020-2023) with Natural Resource Areas**

**Figure 62 A: Cass County**



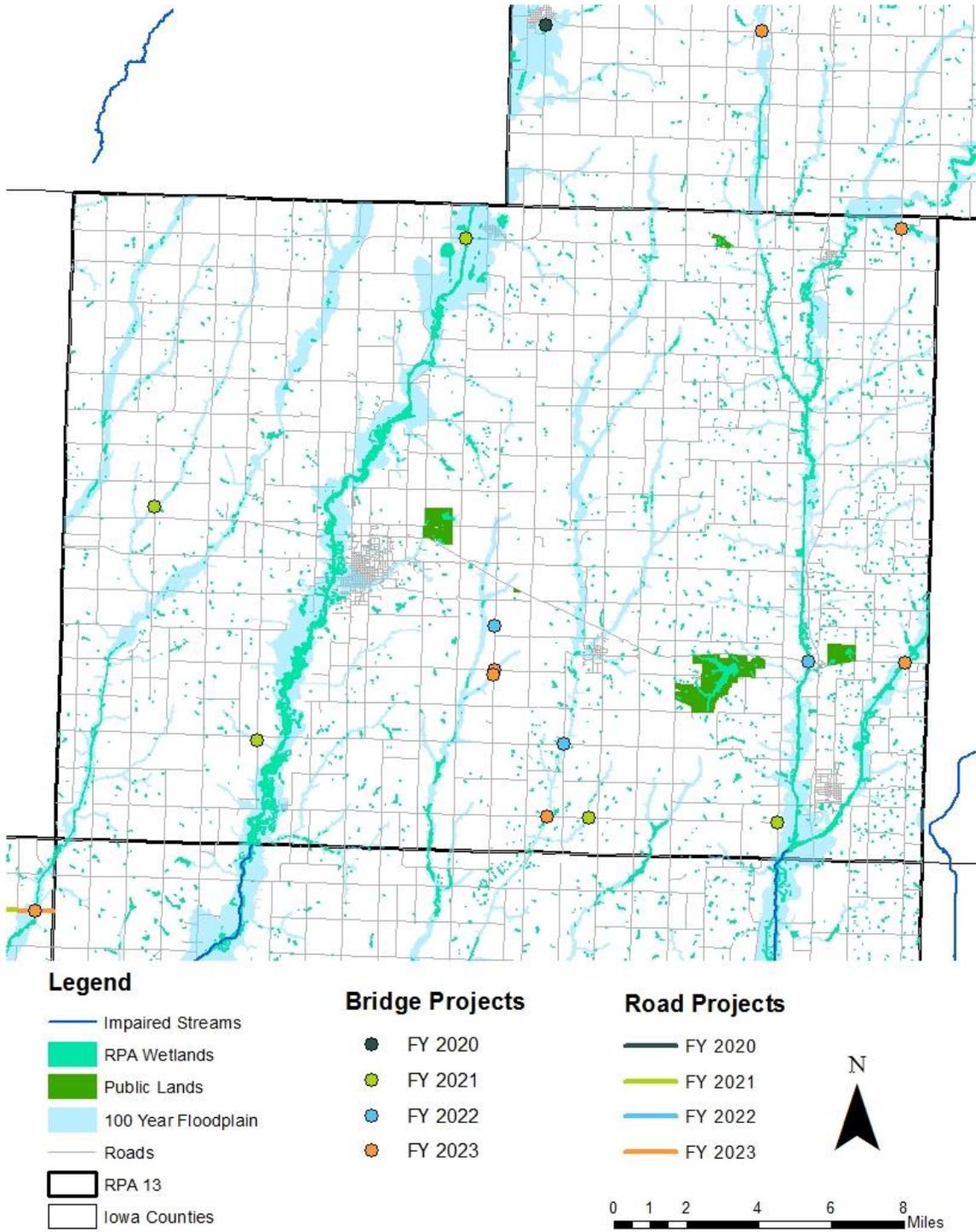
**Source:** Iowa Department of Transportation, Iowa Department of Natural Resources, FEMA

**Figure 62 B: Fremont County**



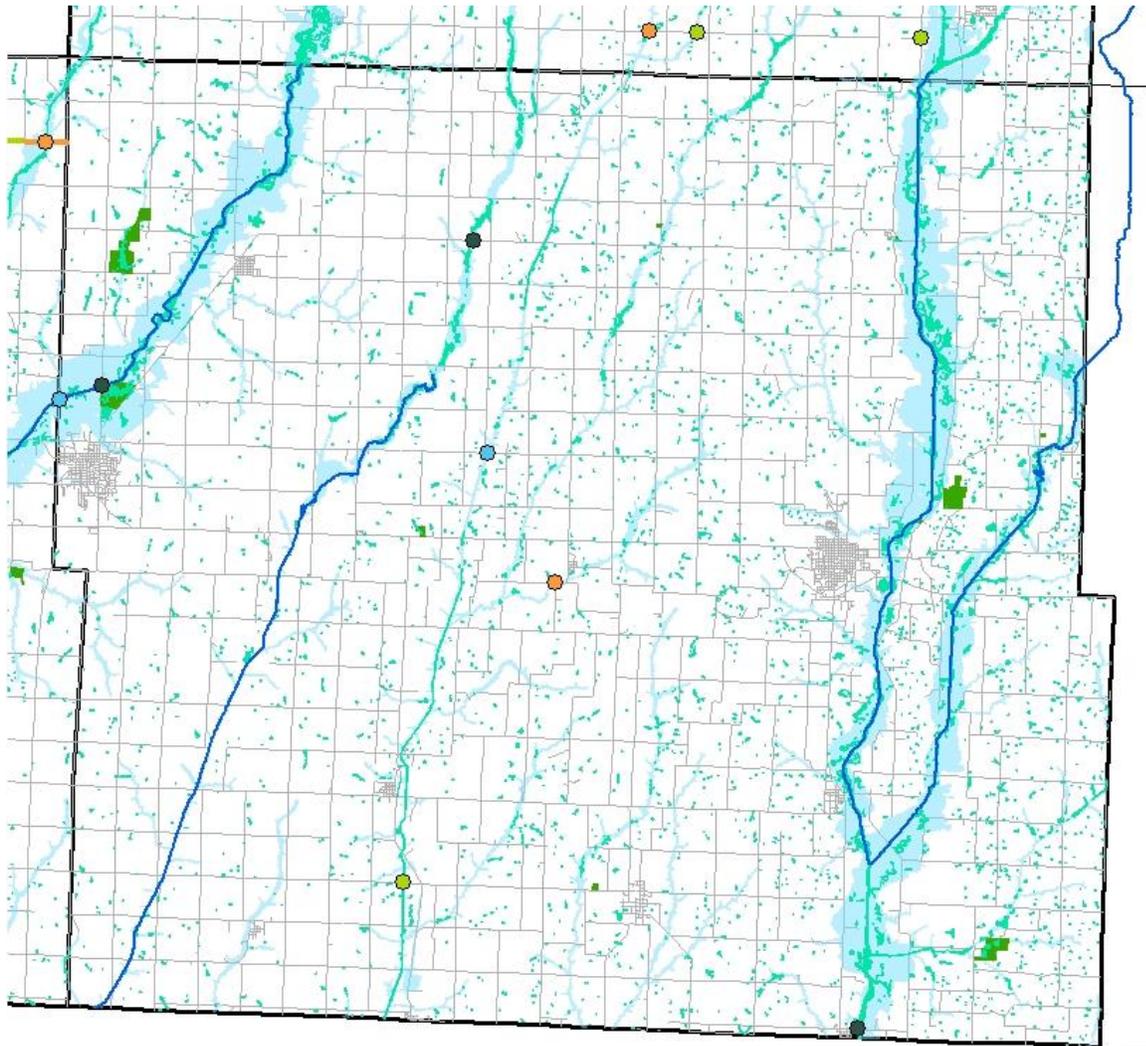
**Source:** Iowa Department of Transportation, Iowa Department of Natural Resources, FEMA

**Figure 62 C: Montgomery County**



**Source:** Iowa Department of Transportation, Iowa Department of Natural Resources, FEMA

**Figure 62 D: Page County**



**Legend**

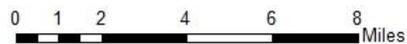
- Impaired Streams
- RPA Wetlands
- Public Lands
- 100 Year Floodplain
- Roads
- RPA 13
- Iowa Counties

**Bridge Projects**

- FY 2020
- FY 2021
- FY 2022
- FY 2023

**Road Projects**

- FY 2020
- FY 2021
- FY 2022
- FY 2023



**Source:** Iowa Department of Transportation, Iowa Department of Natural Resources, FEMA