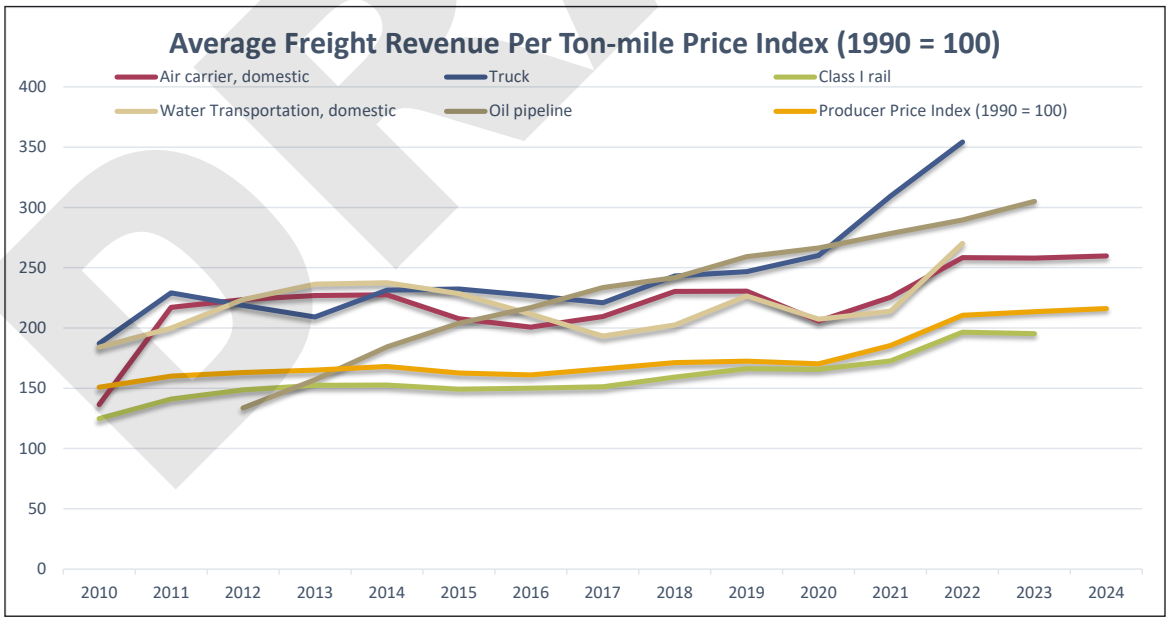
Chapter 4 – Freight Network

Existing Freight Network

This freight chapter outlines information related to movement of goods by air, truck, rail, and water navigation in Region 9. A viable transportation network considers the ease of freight movement, system reliability, and safety. *The Geography of Transport Systems* outlines a freight service spectrum where costs correlate to speed, reliability, weight, and cargo value. Air transportation is the fastest, most reliable, most visible, and most costly mode of transportation. Air freight transports the lowest weight, highest value, and most time-sensitive cargo. In contrast, pipelines are the slowest, least reliable, least visible, and lowest cost per pound mode for shipping commodities. Water transportation can carry the highest weight, lowest value, least time-sensitive cargo. Truck and rail freight transportation fall between the two ends of the continuum.[1]

The Bureau of Transportation Statistics calculates annually the average freight revenue per ton-mile for each mode of freight transportation. Figure 4.1 shows the change in value per ton-mile for air, truck, rail, water, and pipeline freight transportation from 2010 to 2024, as well as the increase in producer price index over that same timeframe.

Figure 4.1 – Average Freight Revenue Per Ton-mile Price Index (1990 = 100)



Source: Bureau of Transportation Statistics, 2024

1 Source: The Geography of Transport Systems, Rodrigue, Dr. Jean-Paul, Ch. 3.3

Freight movements are frequently a complex chain of intermodal and interregional trips. These trips take diverse and competing factors into consideration. Freight movement has an integral role in the Region 9 economy, providing not only the delivery of goods and services, but also employment opportunities, including for-hire freight carriers, private transportation providers, freight forwarders, logistics providers, and companies that serve and maintain vehicles. A depiction of the multimodal system and its relation to the Regional 9 economy can be seen in Map 4.1. Region 9 strengths include good transportation infrastructure, access for movement of both goods and employees, and the physical condition of the farm-to-market road system.

According to the most recent Commodity Flow Survey from the Bureau of Transportation Statistics for fiscal year 2022, 11 billion tons of domestic goods were moved by freight in the United States, valuing approximately $14.7 trillion. Trucks transport the majority of goods, which accounts for approximately 89.89 percent of the total value and 75.18 percent of the total tonnage. Rail is the next largest contributor at 13.2 percent of the tonnage and 3.9 percent of the total value. Water navigation, air, and pipeline are smaller contributors with about 3.87, 0.05, and 7.25 percent of the annual tonnage, and 1.16, 1.06, and 4.01 percent of the total dollar value of domestic freight shipments respectively. Compared to the previous Commodity Flow Survey for fiscal year 2017, there has been a slight increase in tonnage transported by rail (up from 10.8 percent) and by pipeline (up from 6 percent).

Table 4.2 shows the total tonnage and value of total freight flows by mode in the Bi-State Region in 2022 as well as the projected tonnage and value by mode of total freight flows in the year 2055. It is estimated that by 2055, trucks are expected to haul 87.1 percent of the total tonnage in Region 9 followed by rail (6.7 percent), multiple modes (4.2 percent), water (1.5 percent), and air (0.02 percent).[2] From a location perspective, Region 9 is geographically situated in the heartland along a major interstate highway (I-80) with access to interstate railroads and pipelines, the Mississippi River navigation channel, and general aviation airports. Map 4.1 highlights the Bi-State Region Economy and the Intermodal Network in the Region 9.

2 Source: Bi-State Region Freight Plan Addendum, 2024

Table 4.1 **Value and Percent of Total Tonnage by Transport Mode (Nationwide)**

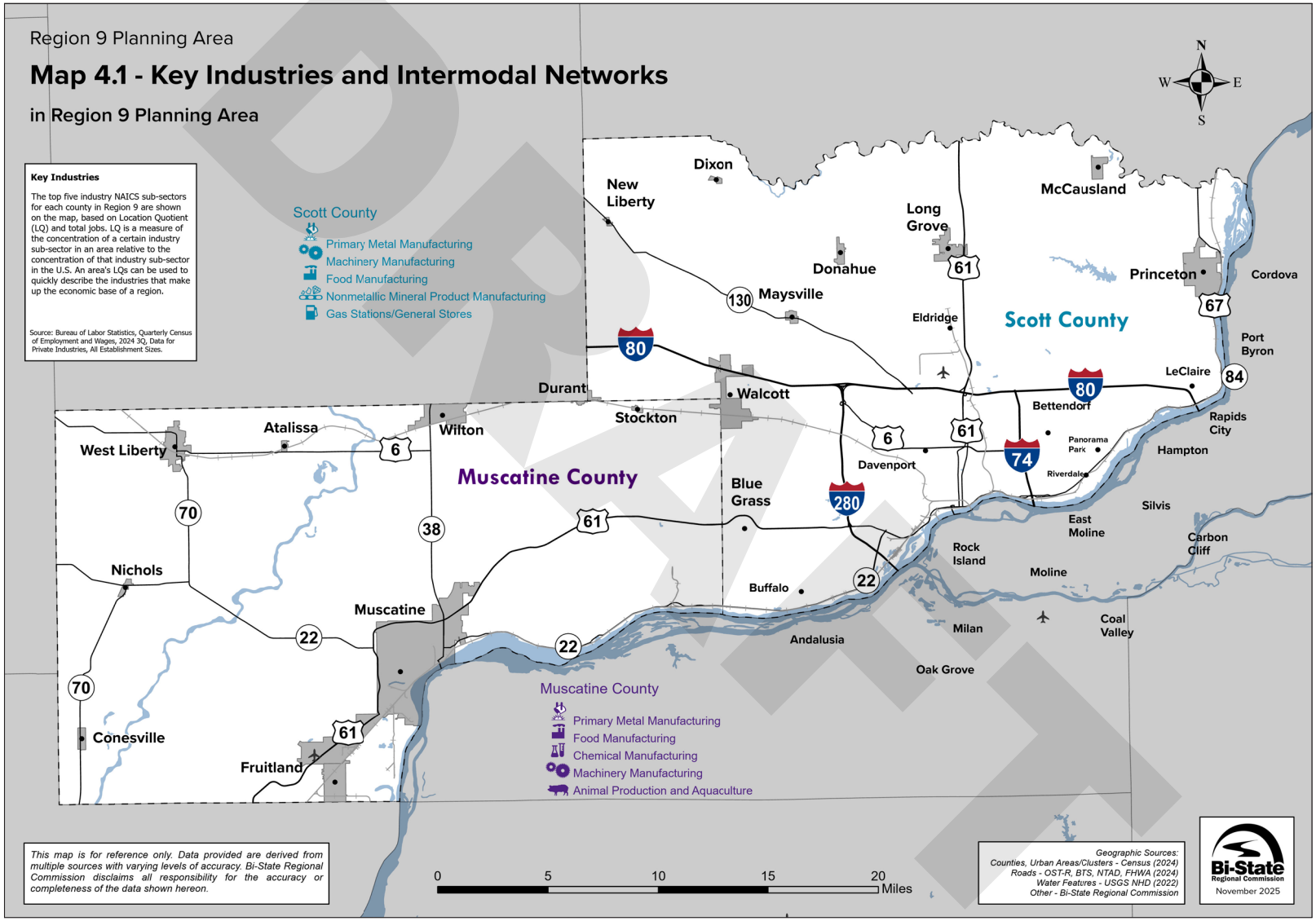
Mode of Transportation	2022 Value (Millions $)	Value (Percent of Total)	2022 Tons (Thousands)	Tons (Percent of Total)
Nationwide				
Truck	13,222,965	89.89%	8,293,501	75.18%
Rail	568,541	3.87%	1,456,515	13.20%
Water	171,131	1.16%	435,378	3.95%
Air (includes truck and air)	155,933	1.06%	5,212	0.05%
Pipeline	589,646	4.01%	799,759	7.25%
Other Single modes	1,372	0.01%	40,763	0.37%
Total	**14,709,588**		**11,031,128**	
Bi-State Region				
Truck	67,925	84.30%	68,883	82.76%
Rail	2,569	3.19%	9,419	11.32%
Water	0.363	<0.01%	9	0.01%
Air	0.620	<0.01%	1,447	1.74%
Multiple Modes	9,093	11.29%	3,477	4.18%
Total	**80,573**		**83,237**	

Source: National Data: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics and U.S. Department of Commerce, U.S. Census Bureau, Economic Census: Transportation Commodity Flow Survey, 6/26/2025.
Bi-State Region Data: FHWA FAF5 estimates, Analysis by WSP, 2024

Table 4.1 – Value and Percent of Total Tonnage by Transport Mode In Bi-State Region 2022 and 2055 (projected)

Mode	Tons					Value (Millions $)				
	2022	2055	% Growth	% Annual Growth	% Share of Increment	2022	2055	% Growth	% Annual Growth	% Share of Increment
Truck	68,883,945	119,608,259	74%	2.4%	93.7%	67,925	145,044	114%	3.4%	82.9%
Rail	9,419,052	9,148,188	-3%	-0.1%	-0.5%	2,569	4,522	76%	2.5%	2.1%
Air	9,254	21,334	131%	3.7%	0.0%	620	2,076	234%	5.4%	1.6%
Maritime	1,447,202	1,997,076	38%	1.4%	1.0%	363	624	72%	2.4%	0.3%
Multiple Modes	3,477,796	6,604,164	90%	2.8%	5.8%	9,093	21,374	135%	3.8%	13.2%
Total	83,237,249	137,379,021	65%	2.2%	100.0%	80,573	173,643	116%	3.4%	100.0%

Source: FHWA FAF5 estimates, Analysis by WSP, 2024


Region 9 Planning Area
Map 4.1 - Key Industries and Intermodal Networks
in Region 9 Planning Area
N
W
E
S
Key Industries
The top five industry NAICS sub-sectors for each county in Region 9 are shown on the map, based on Location Quotient (LQ) and total jobs. LQ is a measure of the concentration of a certain industry sub-sector in an area relative to the concentration of that industry sub-sector in the U.S. An area's LQs can be used to quickly describe the industries that make up the economic base of a region.
Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2024 3Q, Data for Private Industries, All Establishment Sizes.
Scott County
Primary Metal Manufacturing
Machinery Manufacturing
Food Manufacturing
Nonmetallic Mineral Product Manufacturing
Gas Stations/General Stores
Muscatine County
Primary Metal Manufacturing
Food Manufacturing
Chemical Manufacturing
Machinery Manufacturing
Animal Production and Aquaculture
Dixon
New Liberty
Long Grove
McCausland
Donahue
Princeton
Cordova
Maysville
Eldridge
Scott County
Port Byron
LeClaire
Durant
Walcott
Stockton
Bettendorf
Rapids City
Atalissa
Wilton
West Liberty
Davenport
Panorama Park
Riverdale
Hampton
Muscatine County
Blue Grass
Silvis
East Moline
Carbon Cliff
Nichols
Rock Island
Moline
Buffalo
Muscatine
Milan
Coal Valley
Andalusia
Oak Grove
Conesville
Fruitland
0
5
10
15
20
Miles
This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.
Geographic Sources:
Counties, Urban Areas/Clusters - Census (2024)
Roads - OST-R, BTS, NTAD, FHWA (2024)
Water Features - USGS NHD (2022)
Other - Bi-State Regional Commission
Bi-State Regional Commission
November 2025

Intermodal Facilities in Region 9 Area

An intermodal, or multi-modal, facility is a location where items are moved from one form of conveyance or mode to another. A transload facility transfers products between modes, trucks to trains, rather than staying in the same container the entire origin to destination. There are currently no public intermodal facilities in Region 9. The nearest public transload facility is located in Davenport's Eastern Iowa Industrial Center (EIIC), which opened in 2016. There are a number of private transload facilities in Region 9, facilitating the movement of freight from truck to rail or truck to river.

Motor Freight

Motor freight traffic in the non-urban Region 9 is served primarily by one interstate highway, three United States primary highways, and a high-quality secondary highway system to provide for the movement of goods, services, and people within the region and to other market locations. Interstate 80 bisects Scott County and carries significant freight traffic across Iowa. It is a vital thread connecting the Region 9 economy to national and international markets. Some sections of I-280 and all of I-80 in the Bi-State Region carry over 10,000 trucks per day on average and at some locations up to 12,000 trucks per day or over 30% truck traffic. According to 2022 Freight Analysis Framework data aggregated for the Bi-State Region in the 2024 *Bi-State Region Freight Plan Addendum*, outbound truck tonnage is greater than inbound tonnage, and has greater value. Table 4.3 displays these tonnages for the Bi-State Region, which includes Region 9, using 2022 data and projecting what truck tonnage will be in 2055. In the freight plan, this increase was projected to be 74%. These two indicators point to a high number of manufacturing and processing employers in the Metropolitan Quad Cities Area and surrounding the Region 9 area. Key manufacturing and processing industries are shown in Map 4.1.

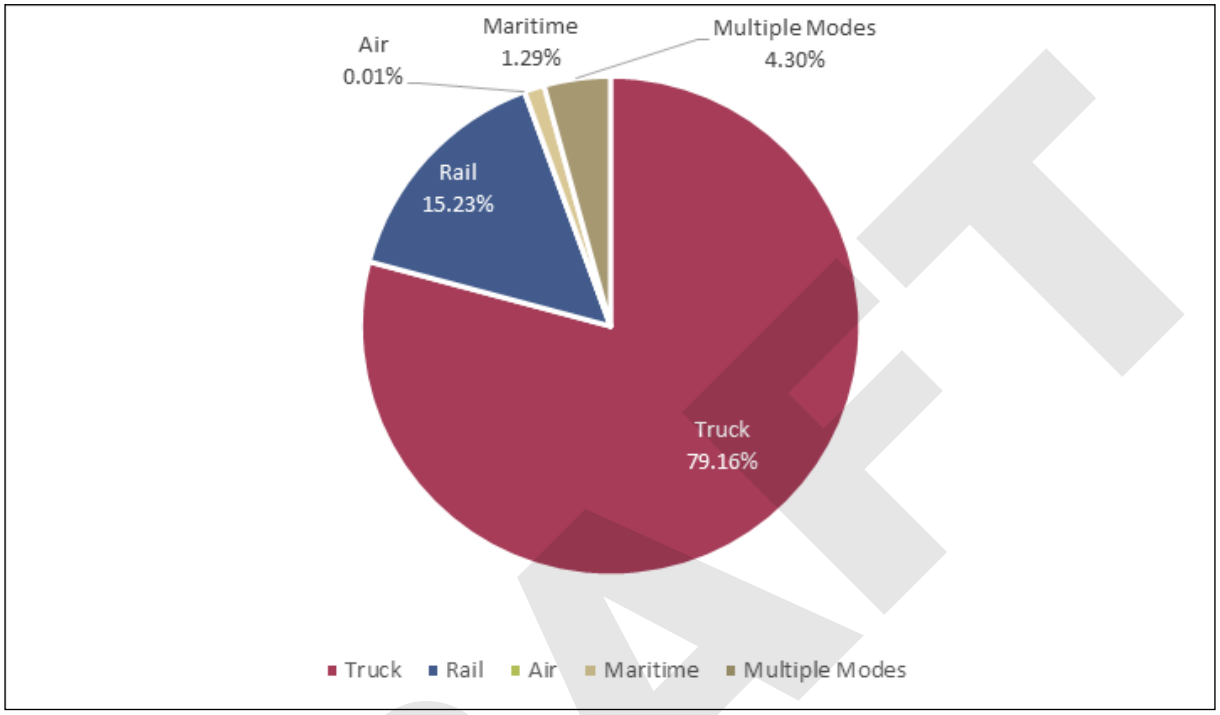
Table 4.2 – Bi-State Region Inbound & Outbound Truck Tonnage

Year	Inbound Tons (Thousands)	Outbound Tons (Thousands)
2022	32,502	34,659
2055 (aggregated)	56,553	60,306

Source: 2024 Bi-State Region Freight Plan Addendum

The Bi-State Freight Plan estimates that 40,380,723 tons or 79.2%, of freight moving into and out of Scott and Muscatine Counties occurs on trucks. While this data includes the urban Quad Cities, it provides a representative picture of freight flows in Region 9. Rail represented 15.23% of freight flow tonnage, while multiple modes, maritime, and air represent 4.3%, 1.29%, and 0.01% respectively. (See Figure 4.2)

Figure 4.2 – Estimated Freight Movement Originating and Terminating in Scott and Muscatine Counties



Source: 2024 Bi-State Region Freight Plan Addendum

The Unified Carrier Registration Act of 2005 (UCR) became effective January 1, 2007. This program requires all individuals and companies that operate commercial motor vehicles in interstate or international commerce to register their business and pay an annual fee based on the size of the fleet. The program applies to motor carriers, freight forwarders, and brokers. The registration is overseen by the Federal Motor Carrier Safety Administration (FMCSA) with its mission to reduce crashes, injuries, and fatalities involving large trucks and buses.

Weight restrictions have a bearing on road durability and bridge capacity, as well as impacts to maintenance of roadway facilities. In Iowa, typically vehicles over 80,000 pounds require oversize/overweight permits, issued by the Iowa Department of Transportation, Department of Motor Carriers.

In 2023, the Iowa DOT was authorized to issue annual permits for all overweight divisible and indivisible loads. These Annual All-Systems Overweight Permits allow for trucks and their loads to exceed the legal maximum weight by 12% allowing for a permitted maximum weight of 89,600 for 5-axle vehicles, 100,800 for 6-axle vehicles, and 107,520 for 7-axle vehicles. These permits allow for unlimited trips on all state roads, farm-to-market roads, and secondary roads not otherwise restricted by the local authority. Cities and county roads are automatically included under this permit, and only roads specifically designated by local are not valid for travel under this permit.

Another notable overweight permit in the state of Iowa is the governor's Harvest Proclamation, which allows vehicles carrying agricultural products (corn, soybeans, hay, straw, stover, silage, fertilizer, and manure) to exceed maximum weight by an additional 12.5% (with a maximum allowable weight of 90,000 pounds) during harvest season. The exact duration of this exemption is determined by an annual proclamation from the governor. Due to the COVID-19 pandemic, this exemption was temporarily extended to trucks carrying food, medical supplies, cleaning products, and other household goods. There is one embargoed bridge in Scott County identified by the Iowa DOT as southbound Iowa 461/Business 61 0.6 miles south of junction U.S. 6 over Duck Creek. Other structural impediments to freight movement include structures with vertical clearance restrictions. There are six bridges in Region 9 with vertical clearance restrictions. The only bridge restriction in Muscatine County is the Iowa 92 bridge over the Mississippi River in Muscatine. All five Region 9 bridges in Scott County that have clearance restrictions are located on U.S. 61, two in north Scott County and three on the U.S. 61 bypass going around Blue Grass.

Rail Freight

Railroads have been an integral part of history within Region 9. The first railroad crossing of the Mississippi River occurred in Davenport with the first railroad tracks from Davenport to Muscatine being opened in November 1855. Today, rail continues to play a role in the regional transportation network. In Region 9, there are approximately 209 miles of rail. One Class I railroad, Canadian Pacific Kansas City Railroad (CPKC), and one Class II railroad, Iowa Interstate Railroad (IAIS), operate in Region 9.

Within the State of Iowa, freight rail plays an important part in the economic vitality of many communities and regions. The Iowa State Rail Plan estimates that $34.5 billion worth of freight originating in Iowa is moved out of the state by rail, and $13.5 billion is moved into the state. The plan also estimates that rail impacts a total of 219,380 jobs in the state, and that "the total economic impacts related to rail movements range between 10.8% (employment) and to 19.5% (economic output) of the statewide economy, depending on measure."

Region 9 is expected to see a significant increase in rail tonnage being moved through the region as a result of the 2023 merger of the Canadian Pacific and Kansas City railroads. According to CPKC estimates, by 2027, there will on average 22 trains per day coming through the Iowa side of the Mississippi River tracks, an increase of 15 trains.

Along the Iowa Interstate Railroad, according to the 2022 Iowa State Rail Plan, total traffic west of Rock Island represents 10.9 million gross tons per year operating at speeds of up to 40 mph. There are sidings at Walcott (6,520 feet), Twin States (4,980 feet), Wilton (12,272 feet), West Liberty (4,200 feet), and Iowa City (8,676 feet).

Water Freight

On the shores of the Mississippi River, Region 9 has an opportunity uncommon in the State of Iowa for water transportation. The Mississippi River links the region with its tributaries, the Gulf of Mexico, the Great Lakes, and connections to foreign ports. The navigation season lasts approximately 10 months (March-December) with the average channel depth of nine feet. While barge transportation requires more shipping time than other forms of transport, the lower shipping rates and energy efficiency of this mode of transportation provide a significant cost savings to bulk material shippers. According to the U.S. Army Corps of Engineers, barge transportation is 7.5 times more economical than by truck when measured by weight. Locks and Dams 14, 15, and 16 are located in or near the planning area and are maintained by the Rock Island District of the U.S. Army Corps of Engineers. They were built in the 1930s and are 600 feet in length. Both Locks 14 and 15 have auxiliary locks of 320 and 360 feet in length, respectively. These are primarily used seasonally for locking through recreational craft. Due to age and length of tows at 1,100 feet, it takes 90 to 120 minutes for this size tow to lock through a 600-foot lock.

Figure 4.6 indicates the barge traffic by tonnage between 2004 and 2024 at Lock and Dam 14 near LeClaire, Iowa and Lock and Dam 17 near Keithsburg, Illinois to illustrate patterns in and outside the planning area. Decreases in 2008 and 2019 tonnages are a result of major flood events in those years that halted barge traffic. Traffic through both locks has declined considerably since 2020.

According to the Army Corps of Engineers, there are 13 barge terminals in Region 9, almost all of which are located in Muscatine. A detailed list of these terminals and their products can be found in Appendix A, as can a breakdown of the freight moving through Locks and Dams 14 and 17 by commodity type. In 2024, food and farm products represented 21 percent of the tonnage shipped through this stretch of the Mississippi River. Chemical products followed representing 14 percent of the tonnage shipped in 2019. Food and farm products fluctuate much more than any other commodity in the region.

Water passenger transportation on the Mississippi River is primarily recreational craft. There is a passenger ferry service operating in the pool above Lock 15 within the Quad Cities Metropolitan Area. There are no ferry boats operating in the Region 9 planning area.

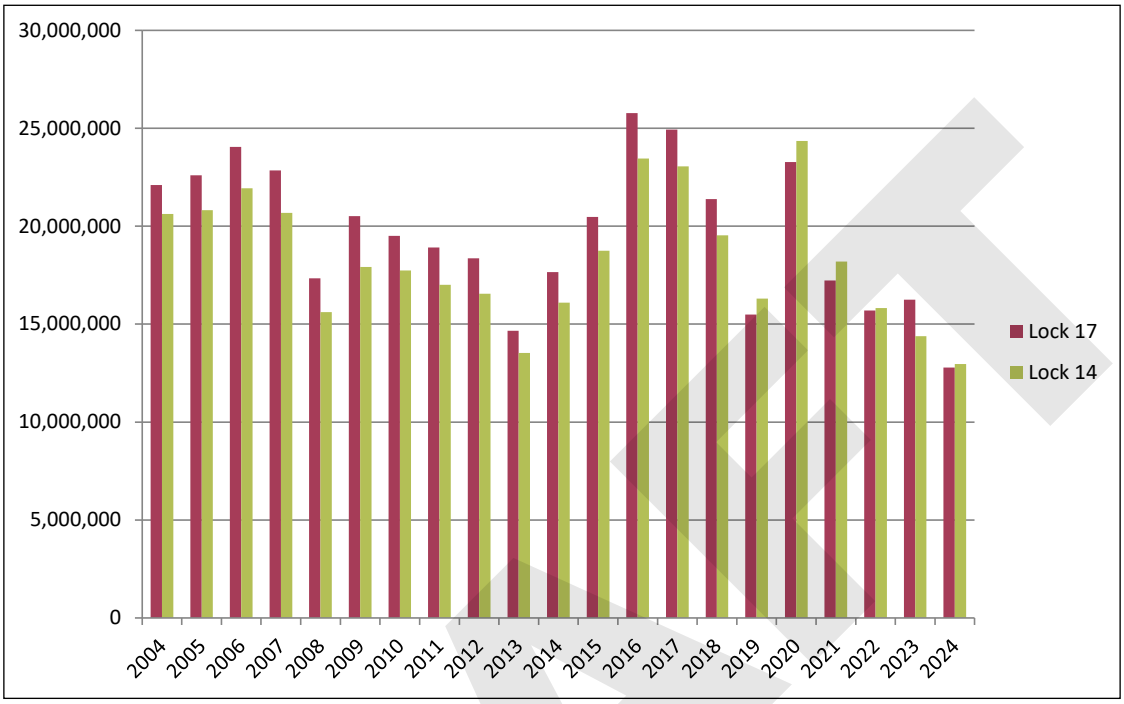
In October 2020, the Upper Mississippi River Ports (UMRP) was designated by the U.S. Army Corps of Engineers as a port statistical area (PSA) under the Navigation Data Center responsible for collecting, processing, distributing, and archiving commercial vehicle vessel trip and cargo data. The PSAs contain an aggregation of complex data to provide publicly, and provide for an understanding of how tonnage exists within a given segment of the nation's maritime system. UMRP includes 15 counties from the north to the south borders of Iowa, and includes 221.5 total river miles. With a 2023 tonnage of 6.4 million, UMRP ranks #6 in total tonnage for U.S. port statis-

tical areas and #74 for all ports in the United States. Bi-State staff, in cooperation with peer Metropolitan Planning Organizations (MPOs), have published an online interactive map and dashboard showing the UMRP statistical area with cataloged terminals.

In 2024, the Ports of Eastern Iowa Authority was established by resolution for six counties in eastern Iowa including Clinton, Dubuque, Jackson, Louisa, Muscatine, and Scott Counties. The designation will aid in gathering freight statistics, and convene stakeholders to bring attention to the important contribution the Mississippi River plays in maritime freight in the United States. This designation will elevate river navigation in Region 9 and in the greater Bi-State region.

The Iowa Department of Transportation funded a pilot freight grant program, Linking Iowa's Freight Transportation System (LIFTS). The program purpose is to improve multimodal freight transportation to meet changing demands for shipping products. The City of Muscatine secured $80,000 of LIFTS funding and $20,000 in public/private partner matching funds to conduct a feasibility study for their port idea. Following completion of the study in May 2015, an inland multimodal container terminal port facility was determined to be feasible for a site in southwest Muscatine, Iowa located on the Upper Mississippi River M-35 Marine Highway. The feasibility study and concept design with approximate cost estimates outlined key steps to move the project forward. The 100-acre site is privately owned and to be annexed into the City of Muscatine, Iowa. There are 2,500 linear feet of access along the Mississippi River with sufficient depth for barge and towboat handling. An active rail line operated by the Canadian Pacific Kansas City Railroad is adjacent to the property and serves other industrial users in the vicinity of the proposed project. There is access to U.S.61. The site is suited to handle various cargoes such as container on barge, liquid bulk, and dry bulk commodities. A phased approach is anticipated to scale the terminal port for different cargoes to meet market demand. The initial project costs are anticipated to be $12.2-23 million under the governance of a Port Commission enabled by the City of Muscatine with an appointed board. A significant partner in its development is the Kent Corporation who was evaluating the market feasibility and interested shipping partners in the region. Changes in local community and business champions has slowed the progress of this development, but meetings regarding the project are ongoing.

Figure 4.3 – Historic Tonnages at Lock 14 & Lock 17, 2004-2024



Source: US Army Corps of Engineers Lock Performance Monitoring System Summarized Monthly Tonnage Report, 2025: https://corpslocks.usace.army.mil/lpwb/f?p=121:1:14927714142398

Air Freight

Commercial Aviation

There are no commercial airports in Region 9. The nearest commercial airport, Quad Cities International Airport in Moline, IL, deplaned 307,038 tons of freight and enplaned 335,288 tons in 2022. In 2023, the amount of freight deplaned dropped to 252,832 tons. However, the freight enplaned in 2023 increased to 397,831 tons.

Future Freight Network Priorities

Based on research by the Mid-American Freight Coalition served by the University of Wisconsin, key suggestions in the 2013 *Regional Freight Study*[3] for ten upper Midwest states include the following, which can be applied for Region 9:

1. Advance the use of transportation and the movement of freight to support and encourage a regional approach to economic development.
2. Identify the bottlenecks, particularly at intermodal connections, how they affect freight movements throughout the entire region, and how they might be alleviated.
3. Work towards uniformity and consistency applied to freight movements across the regions, especially regarding permitting, truck sizes and weights, and oversize/overweight rules.

3 Source Mid-American Freight Coalition Regional Freight Study, University of Wisconsin-Madison, 2013, https://midamericafreight.org/index.php/rfs/

4. Develop major routes and corridors as regional entities that provide for multi-modal and intermodal developments.
5. Identify unused freight capacity in different areas and modes and how this capacity might be better used.
6. Provide support for disaster planning, scenario planning, and incident management when a major node, or corridor, is crippled by forces of man or nature.
7. Assess environmental considerations, such as air quality, fuel efficiency, land use, and mitigation of invasive species.

Maintaining the quality multi-modal transportation network and its connectivity will continue to be a priority in the future for Region 9 with its agricultural and mining resources. Having diverse modes for movement of goods, local jurisdictions and business interests will need to partner with the state to facilitate efficient and safe freight movement on the I-80 corridor, as well as U.S. highways and state routes. In 2024, an addendum to the *Bi-State Region Freight Plan* was completed, highlighting numerous key facts regarding the movement of freight within and through the region, such as what commodities are traveling on the system, what mode is used, and where the goods are coming from and going to. Notable facts from the freight plan addendum included identifying cereal grains as the commodity with the highest share of freight tonnage in the region (18.66% of total tonnage); machinery as the commodity accounting for the highest share of total commodity value (10.99%); Iowa as the major domestic trading partner for the region; and a long-term trend of increased manufacturing and e-commerce within the area. Also included with the study is a commodity flow tool that visually depicts the data for easy interpretation.

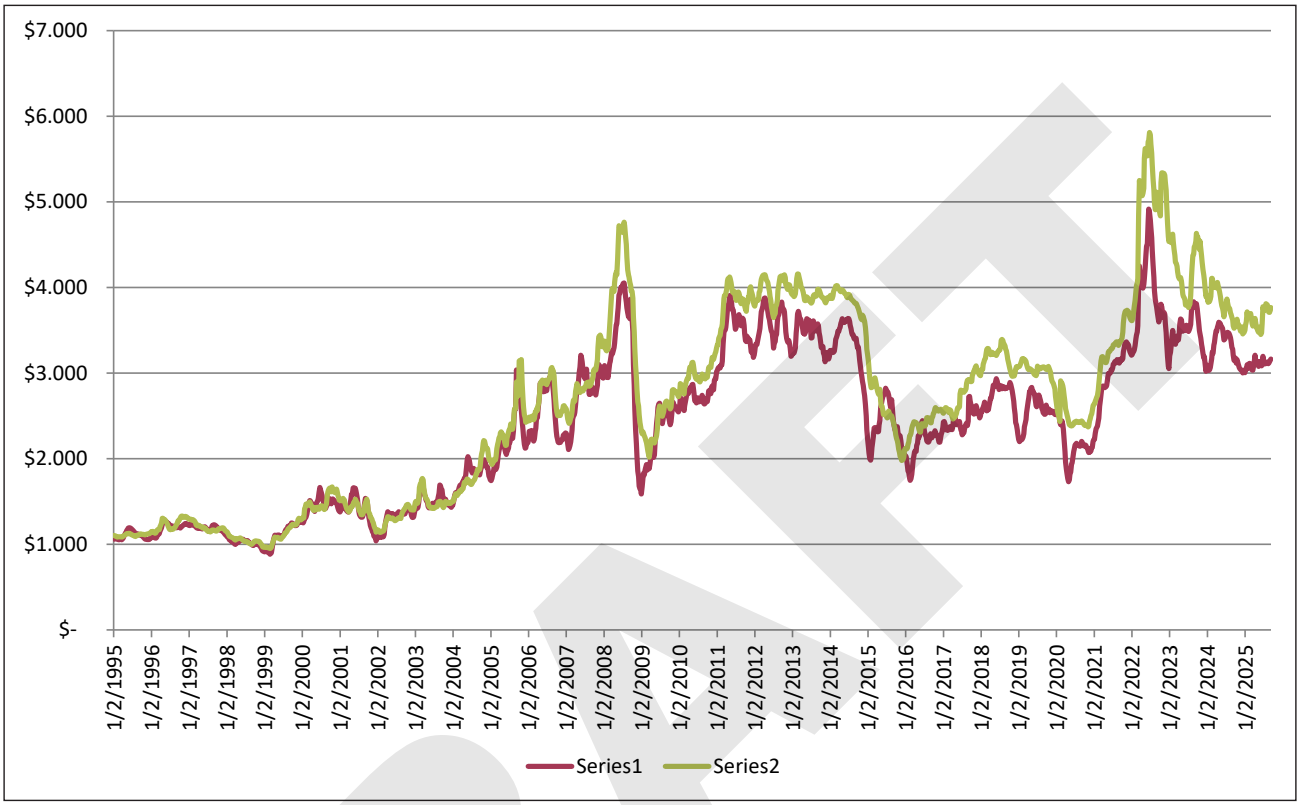
Freight Workforce Needs

As part of the network priorities, cultivating a local workforce trained in efficient movement of goods will be critical to compete in a global economy. A strong foundation of transportation logistics education to move products through the Bi-State Region will support the region's economy. In 2007, Black Hawk College, Moline, Illinois and Eastern Iowa Community College District partnered and received a $1.56 million U.S. Department of Labor grant to train current and future employees in transportation logistics. The existing Certified Supply Chain Professional program provides training in the logistics field. Similarly, Eastern Iowa Community College offers both diplomas and degrees in supply chain and logistics. Providing certification programs and undergraduate opportunities within the region will allow Region 9 to achieve a competitive edge and capitalize on its location to key transportation corridors.

Fuel Price and Time Sensitivity

With the variability of long-range fuel costs (Figure 4.4), there will be more sensitivity to modal costs, where trucking to rail or barge may be more economical if time sensitivity is less concerning. The price of fuel is crucial to the movement of goods into, out of, and through Region 9 and affects the modal choice of shippers nationwide. Price fluctuations will need to be monitored to ensure that needs of freight transportation are met adequately.

Figure 4.4 – Weekly U.S. Retail Price per Gallon of Gasoline and Diesel



Source: U.S. Energy Information Administration (not adjusted for inflation, last updated 9/8/2025)

Safety and Congestion Reduction

Beginning in 2016, Class I railroad main lines will be required to implement Positive Train Control (PTC). Additional lines that must comply with the mandate include any lines handling any poisonous-inhalation-hazardous (PIH) materials or intercity passenger rail service. According to the Federal Railroad Administration (FRA), "this new system utilizes technology to prevent train-to-train collisions, over-speed derailments, incursions into established work zone limits, and the movement of a train through a main line switch in the improper position." The only Class I railroad located in the Region 9 area is Canadian Pacific Kansas City (CPKC) that runs adjacent to the Mississippi River. Burlington Northern Santa Fe (BNSF) also maintains track rights on the CPKC line. According to the 2017 Iowa State Rail Plan, U.S. freight railroads had until the end of 2018 to fully implement PTC.[4] A PTC Implementation Status update in 2018 showed that not all railroads met this requirement.[5] However, as of 2020, the FRA announced that PTC technology

4 Iowa Department of Transportation. Iowa State Rail Plan Final. February 2017. https://iowadot.gov/iowainmotion/railplan/2017/IowaSRP2017_Complete.pdf

5 U.S. Department of Transportation, Federal Railroad Administration. PTC Implementation Status by Railroad. https://www.fra.dot.gov/app/ptc/

is in operation on all required freight and passenger railroads.[6]

Region 9 jurisdictions will monitor the changes resulting in increased rail traffic on the CPKC branch line and its impacts with freight conflicts along the riverfront. Concerns expressed by industry located along the Mississippi River in the *Bi-State Region Freight Plan Addendum* were on rail-crossing blockages and truck queuing that would overflow onto adjacent highways. This is particularly an issue during agricultural harvest season as cereal grains are shipped to national and global markets. These bottlenecks will be monitored for the need for improvements for traffic flow.

General aviation airports will continue to meet business needs. Adequate technology to ensure safety, adequate land use buffering, runway extensions, and terminal upgrades will keep these facilities viable.

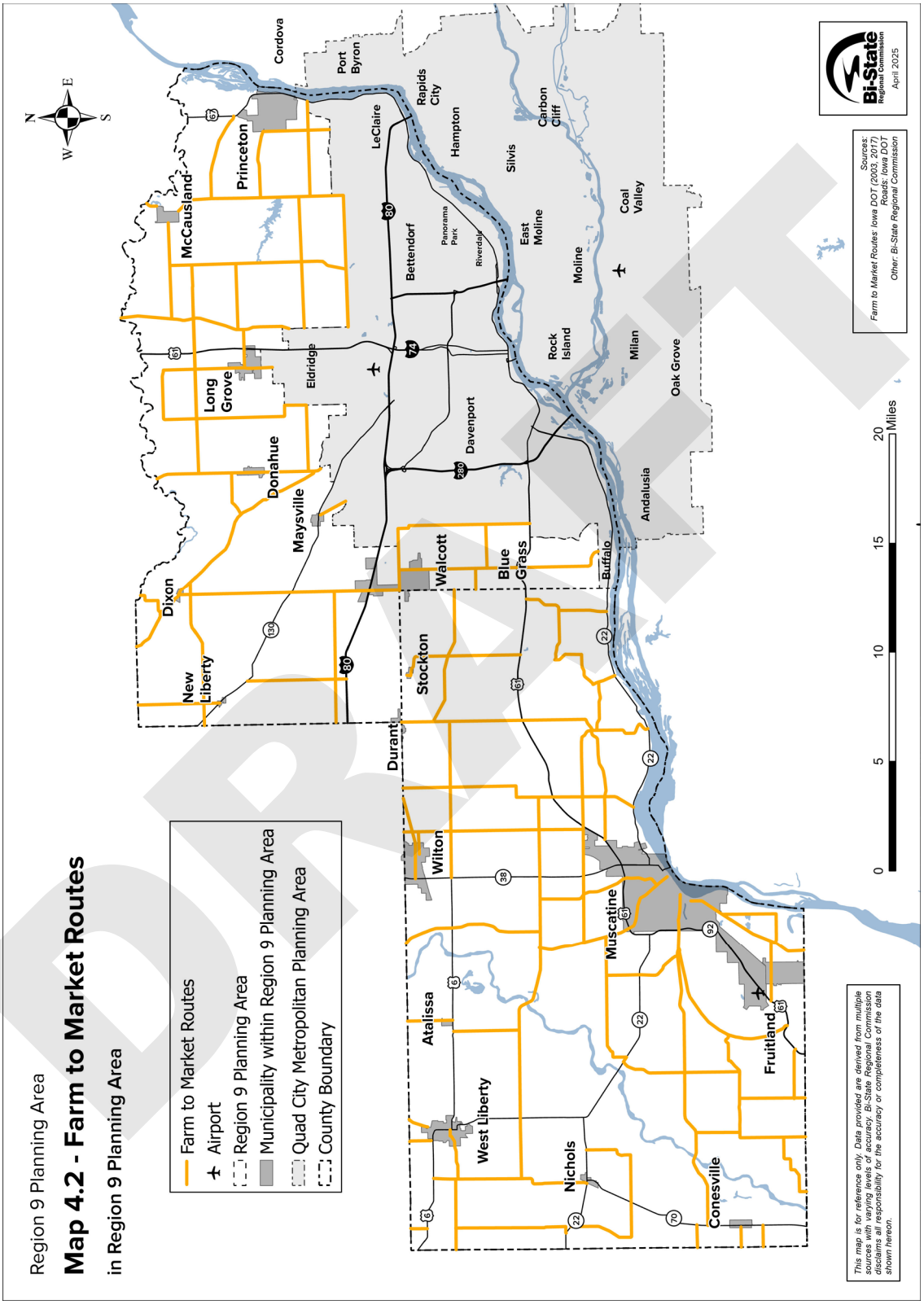
The U.S. Army Corps of Engineers completed a updated their major study of the inland waterway system in 2020, the *Upper Mississippi River-Illinois Waterway System Navigation Study (NESP)*, confirming the original study recommendations for lock improvements. This study looked at needs for over 50 years that include $2.4 billion in navigation improvements and $5.3 billion in ecosystem restoration. The reports indicated a need for additional capacity at Lock and Dam 15 in Rock Island, by extension of the guide wall; the installation of moorings at Lock 14 allowing tows to wait closer to a lock when another tow is completing the lockage process; and the expansion of Lock 16 near Muscatine. The downstream mooring cell at Lock 14 was completed in 2024, with construction of the upstream mooring cell beginning in 2026. Work is currently underway to install mooring cells at Lock and Dam 15, and is expected to be completed in 2026. The Corps has no plans to expand the locks in the region at this time.

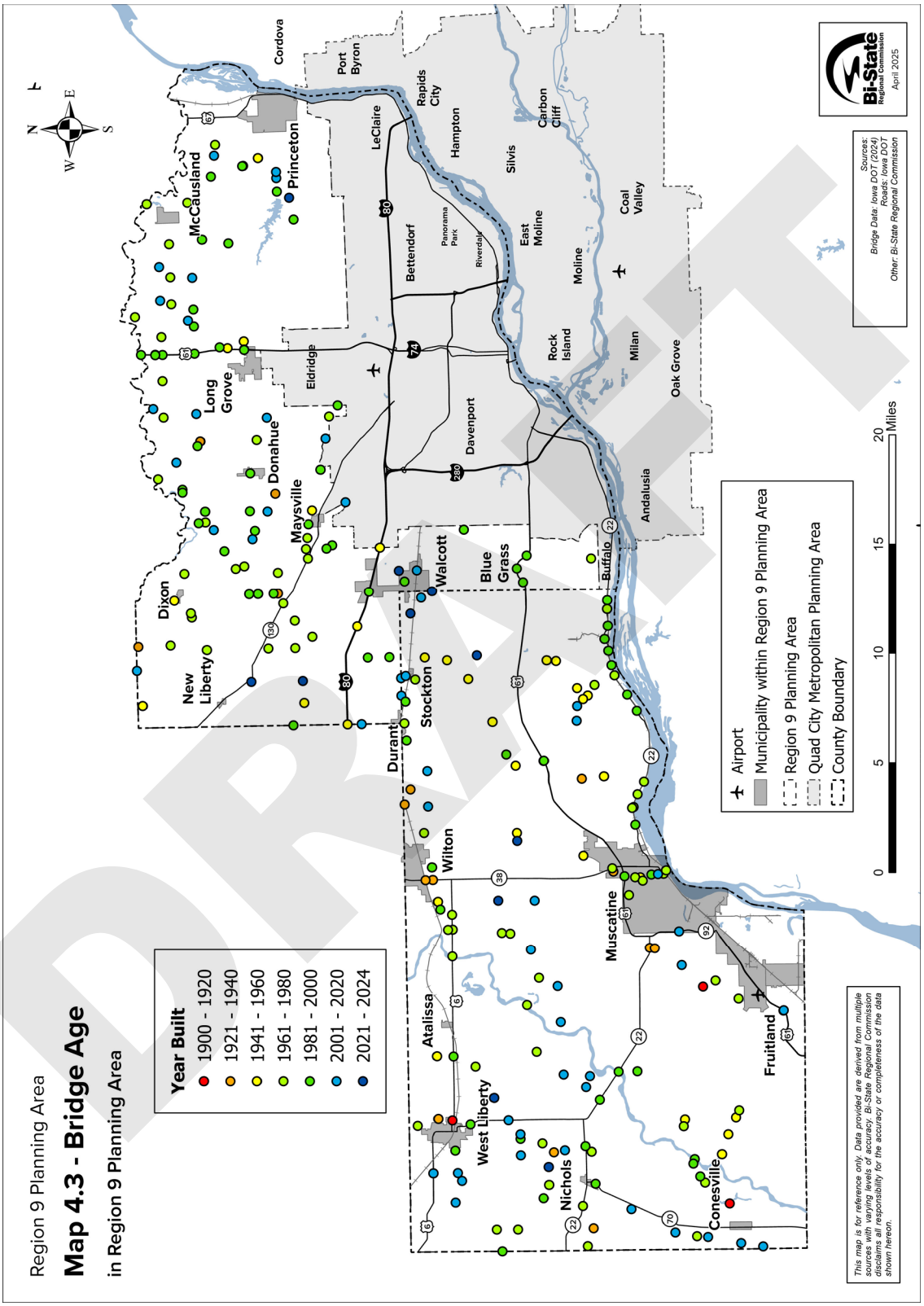
The U.S. Army Corps of Engineers has also stated that container shipping may occur by barge in the future, especially with products shipped on a regular schedule from a single origin to a single destination. This development would most likely increase the use of the Mississippi River as a means of transportation and represents a potential opportunity for the region. At this time there are no know container river ports or terminals in Region 9.

A number of natural gas and hazardous liquid pipelines run throughout Region 9, as seen in Map 4.4 and Map 4.5. With the development and increased extraction of oil and gas in the Bakken Oil Field of North Dakota, Region 9 and the State of Iowa may see increased movement of crude oil via either pipeline or rail as it is shipped to refineries in Texas and on the Gulf Coast. Currently, crude oil is not shipped through Region 9, but trains carrying over one million gallons of Bakken crude oil pass through neighboring Clinton County on the Canadian Pacific Kansas City (CPKC) Railway regularly. Development of these issues as it pertains to the overall freight network will have to be monitored to ensure a safe and reliable transportation system.

Lastly, adapting to changes in technology will be important in Region 9. Technologies can be deployed as traffic operations management solutions to better move freight in the region. Whether it relates to changes in vehicle size, weight, pavement techniques, or modal shifts, these issues may impact how intermodal transportation evolves over time. Region 9 jurisdictions will continue to monitor and act on best practices to address these changing freight related conditions.

6 U.S. Department of Transportation, Federal Railroad Administration. Positive Train Control (PTC) Overview. https://railroads.dot.gov/train-control/ptc/positive-train-control-ptc


Region 9 Planning Area
Map 4.2 - Farm to Market Routes
in Region 9 Planning Area
Farm to Market Routes
Airport
Region 9 Planning Area
Municipality within Region 9 Planning Area
Quad City Metropolitan Planning Area
County Boundary
N
E
S
W
Cordova
Port Byron
Princeton
McCausland
LeClaire
Rapids City
Hampton
Carbon Cliff
Silvis
Bettendorf
Panorama Park
Riverdale
East Moline
Moline
Coal Valley
Rock Island
Milan
Oak Grove
Long Grove
Eldridge
Donahue
Maysville
Davenport
Andalusia
Dixon
New Liberty
Walcott
Blue Grass
Buffalo
Stockton
Durant
Wilton
Muscatine
Atalissa
West Liberty
Nichols
Conesville
Fruitland
0
5
10
15
20
Miles
Sources:
Farm to Market Routes: Iowa DOT (2003, 2017)
Roads: Iowa DOT
Other: Bi-State Regional Commission
Bi-State Regional Commission
April 2025
This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.
DRAFT


Region 9 Planning Area
Map 4.3 - Bridge Age
in Region 9 Planning Area
Year Built
1900 - 1920
1921 - 1940
1941 - 1960
1961 - 1980
1981 - 2000
2001 - 2020
2021 - 2024
Airport
Municipality within Region 9 Planning Area
Region 9 Planning Area
Quad City Metropolitan Planning Area
County Boundary
0
5
10
15
20
Miles
Sources:
Bridge Data: Iowa DOT (2024)
Roads: Iowa DOT
Other: Bi-State Regional Commission
Bi-State Regional Commission
April 2025
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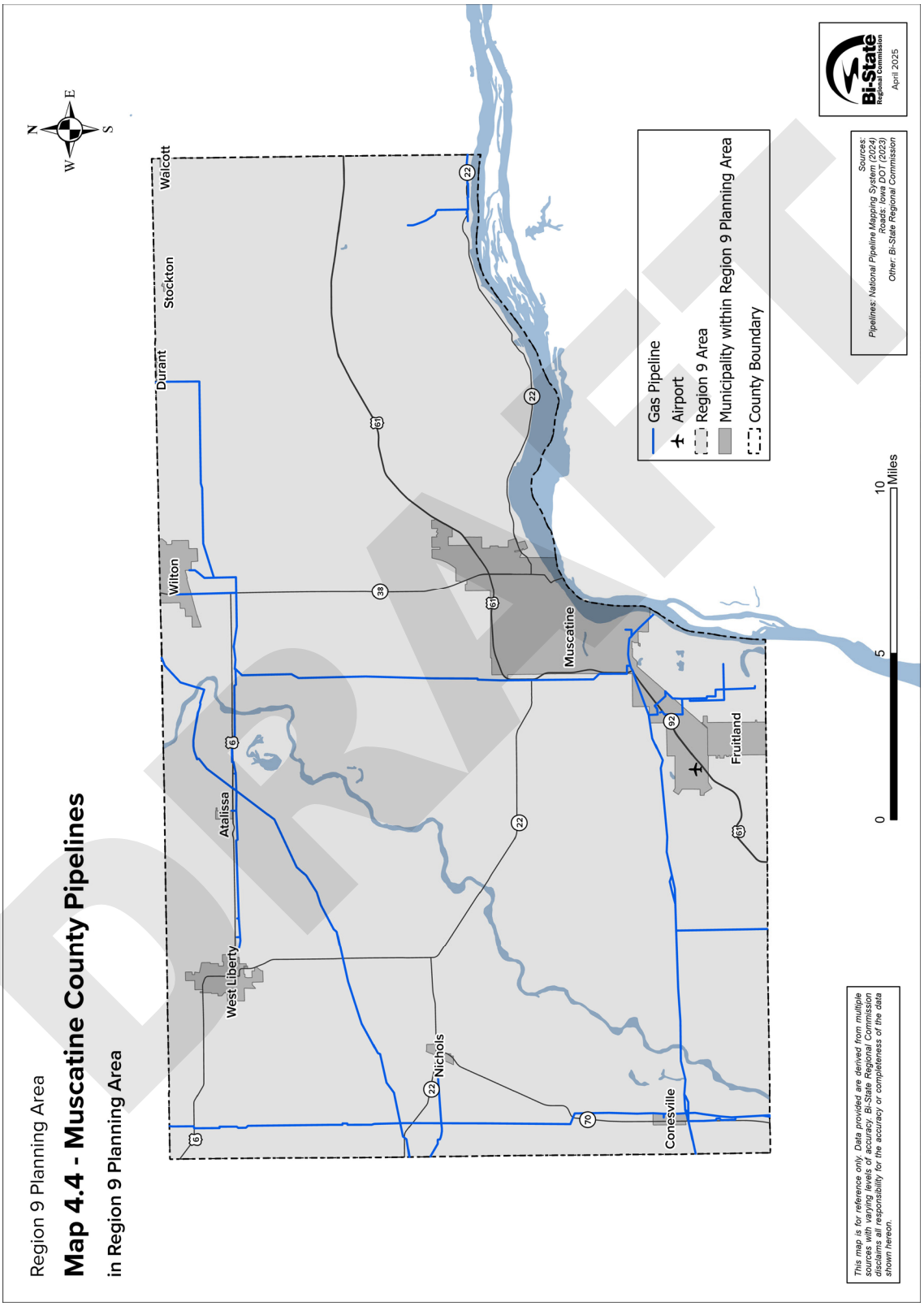
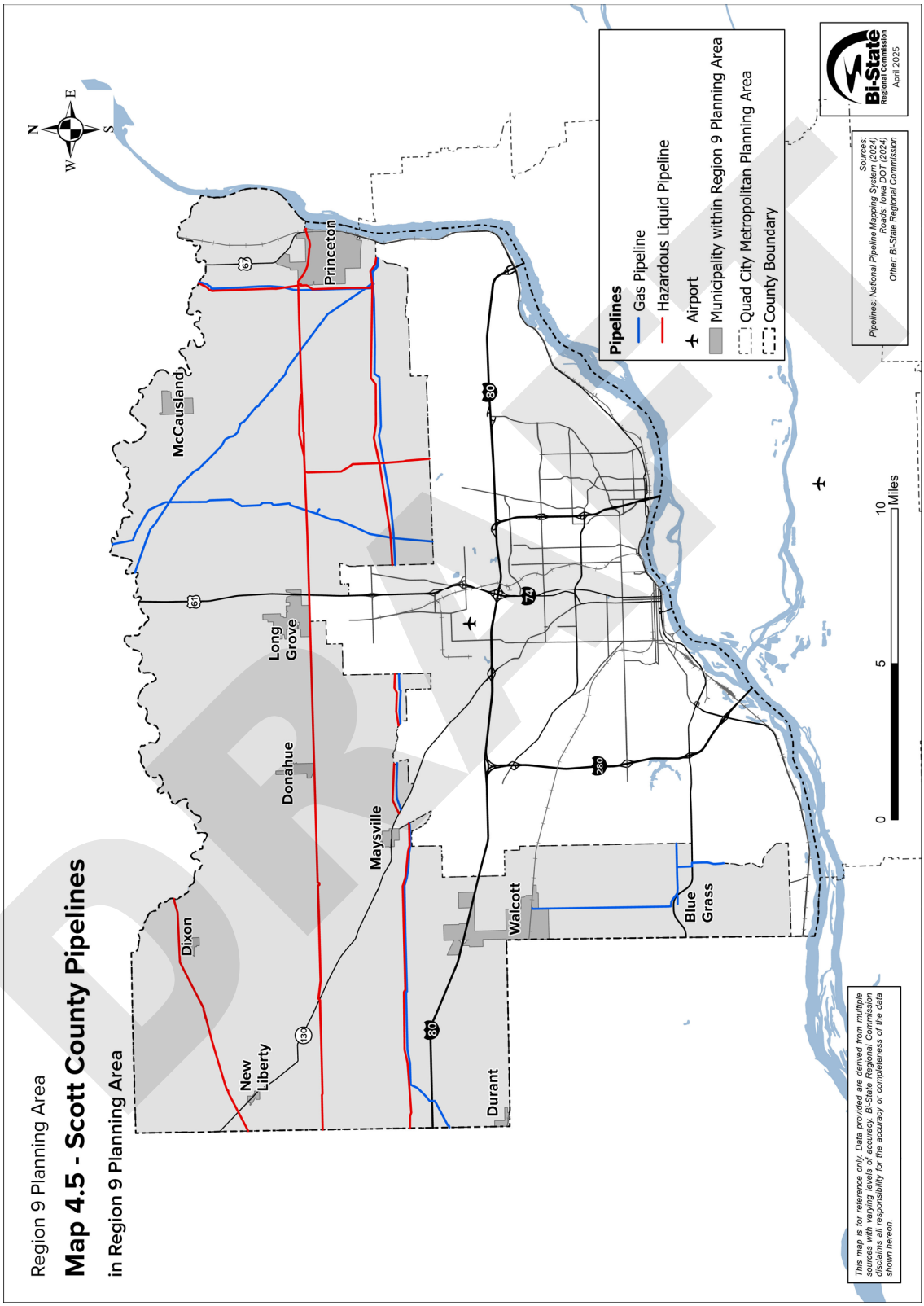
Cordova
Port Byron
Rapids City
Hampton
Carbon Cliff
Silvis
Coal Valley
Princeton
McCausland
LeClaire
Bettendorf
Panorama Park
Riverdale
East Moline
Moline
Rock Island
Milan
Oak Grove
Long Grove
Eldridge
Donahue
Maysville
Davenport
Andalusia
Dixon
New Liberty
Walcott
Blue Grass
Buffalo
Durant
Stockton
Wilton
Muscatine
Atalissa
West Liberty
Nichols
Conesville
Fruitland


Region 9 Planning Area
Map 4.4 - Muscatine County Pipelines
in Region 9 Planning Area
N
E
S
W
Durant
Stockton
Walcott
Wilton
Muscatine
Atalissa
West Liberty
Nichols
Conesville
Fruitland
Gas Pipeline
Airport
Region 9 Area
Municipality within Region 9 Planning Area
County Boundary
0
5
10
Miles
Sources:
Pipelines: National Pipeline Mapping System (2024)
Roads: Iowa DOT (2023)
Other: Bi-State Regional Commission
Bi-State Regional Commission
April 2025
This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.
DRAFT


Region 9 Planning Area
Map 4.5 - Scott County Pipelines
in Region 9 Planning Area
N
E
S
W
Princeton
McCausland
Long Grove
Donahue
Maysville
Dixon
New Liberty
Durant
Walcott
Blue Grass
Pipelines
Gas Pipeline
Hazardous Liquid Pipeline
Airport
Municipality within Region 9 Planning Area
Quad City Metropolitan Planning Area
County Boundary
0
5
10
Miles
Bi-State Regional Commission
April 2025
Sources:
Pipelines: National Pipeline Mapping System (2024)
Roads: Iowa DOT (2024)
Other: Bi-State Regional Commission
This map is for reference only. Data provided are derived from multiple sources with varying levels of accuracy. Bi-State Regional Commission disclaims all responsibility for the accuracy or completeness of the data shown hereon.
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