



ROME- FLOYD FREIGHT PLAN

FINAL REPORT

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Prepared by



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INTRODUCTION

The Rome-Floyd Metropolitan Planning Organization (MPO) embarked on the development of its first regional freight plan to analyze the condition of the existing freight network, understand the context of freight movement in the region, and identify recommendations to improve mobility for both people and goods throughout the region.

Freight transportation and logistics are essential to the modern global economy. Together, they connect the various components of economic engines: raw materials to factories and manufacturers, finished goods to distribution centers and stores, and direct delivery to businesses and consumers.

According to federal regulations, the MPO's planning process should consider freight in two ways¹:

- Increase accessibility and mobility of people and freight.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

This freight plan provides context and guidance to help the Rome-Floyd MPO and its partners achieve these goals while protecting community quality of life and environmental resources.

PURPOSE OF THIS PLAN

This freight plan documents existing freight system conditions throughout the region, including the performance of physical assets like highways and railroads.

With an understanding of current capacity, reliability, and condition the Rome-Floyd regional freight plan analyzed anticipated future demand to identify gaps between expected needs and capacity. Based on the gaps and needs identified, this plan identified recommendations for future resource allocation and investment decisions.

By gathering this information in one place, the Rome-Floyd MPO can receive guidance to better facilitate communication with local agencies and regional stakeholders, like businesses, private transportation providers, and the public, about decisions that will improve freight movement into, through, and out of the region.

FREIGHT IN THE ROME-FLOYD MPO

There are 364 centerline miles of highway in the region, and the "Priority Freight Network" identified in this plan accounts for 38 miles of those. There are also 71 miles of railroads with 102 at-grade crossings, 186 miles of pipelines serviced by 13 intermodal facilities, and the Richard B. Russell regional airport which is completing a runway expansion that would accommodate aircraft large enough to carry freight cargo.

While the Rome-Floyd regional freight plan aims to improve freight movement in the region, it must also help protect community character, historically disadvantaged communities, and environmental resources. Freight forecasts show substantial increases in freight volumes moving through the region by 2050. Prudent decisions today will prepare the region for that possibility while maintaining a high quality of life for residents and workers while supporting a strong economy.

¹ USC 23 § 450.306(b)(4) and § 450.306(b)(7)

REGIONAL FREIGHT VISION

The Rome-Floyd MPO has a mandate to support the "...safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and that fosters economic growth and development within and between States and urbanized areas and take into consideration resiliency needs while minimizing transportation-related fuel consumption and air pollution..." (USC 23 § 450.200).

In this context, this regional freight plan represents the MPO's vision of a freight infrastructure system that facilitates these goals **and** protects local communities, especially those that have been historically disadvantaged. To identify actionable next steps, the Rome-Floyd regional freight plan identifies goals, objectives, and performance measures, defined as follows.

Goals

Goals are specific outcomes that positively contribute to an organization's overall vision. The goals developed for this freight plan are based on input from local agencies as well as from regional stakeholders. They aim to describe broad areas for improvement in the regional freight transportation system and its interaction with the community and environment.

Objectives

Objectives are concrete and achievable steps towards fulfilling one or more goal areas. Following the approval of preliminary goal areas by MPO staff and the stakeholder group, the final stakeholder engagement meeting refined objectives to be actionable and address the range of freight needs currently experienced and expected to emerge within the region.

Performance Measures

Performance measures are quantitative representations of conditions for transportation system users. They are built up from performance metrics which are direct measurements of aspects of the transportation system. The difference between measures and metrics is that measures may require analysis and often consider change over time; for example, travel time for trucks along a roadway segment would be a metric while an annual truck travel time reliability index is a measure.

The Rome-Floyd regional freight plan recommends the MPO to use seven groups of metrics to evaluate progress towards regional goals and objectives. Measures and targets will be set as part of the regular targeting setting process in line with federal and state target setting.

Subsequent performance period reviews will evaluate progress towards goals and how these metrics were able to contribute to

Stakeholder Engagement

Over the course of the freight plan development, key stakeholders in the region were brought together three times to review progress, identify issues, and make recommendations.

The first meeting was an in-person session at Rome City Hall where the group was introduced to the freight planning process. Discussion focused on existing conditions in the region, community priorities, and challenges that faced freight operators and infrastructure owners.

The second meeting was held virtually with a broad invitation to freight partners and regional industries to solicit input on the location of "pain points" in the system, where new developments were expected to locate, and what facilities or intermodal connections would experience notable growth in the coming years.

The third meeting was again held in-person in Rome with the strategic framework as the primary topic. Stakeholders reviewed goals, objectives, recommendations, and performance measures that had developed based on input from the other two meetings.

From these three meetings, the planning team's main takeaway was that the Rome-Floyd region is home to a community of doers who are focused on understanding what they can do to improve quality of life in their communities.

measures that provided the region with meaningful feedback on resource allocation decisions.

GOALS



Increase Freight **Efficiency**

How well a freight system utilizes its resources can have significant, and sometimes unexpected impacts, on its users. In the end, a more efficient system will reduce the time and other resources needed to move good between origins and destination, reducing the diffused cost and environmental burden on the Rome-Floyd region and its partner locales.



Reduce Negative **Impacts** on Communities

One of the great challenges of freight is that its benefits are often dispersed across large economies of scale while its burdens are felt at the local level. As freight demand increases in the region, the MPO needs to protect cultural and environmental resources, especially those communities that have been historically disadvantaged or that have limited ability to participate or influence decision-making.



Improve **Connectivity** to Neighboring Regions

Freight generated or received in the Rome-Floyd region typically relies on connections to other regions, especially Atlanta and Chattanooga. However, improving the quality of connections to other regions such as Birmingham and Gadsden Alabama will provide residents, workers, and employers with greater flexibility and access to opportunities.



Increase Network **Resilience** within the Region

While certain facilities are best suited to the movement of large volumes of freight, the system must be able to adapt to effectively continue the movement of goods and people in the face of expected and unexpected changes in capacity. Preparing for these circumstances will mitigate risks and reduce the economic, community, and environmental impact of facility closures.

OBJECTIVES

Freight Plan Objectives	Goal Areas			
	1. Efficiency	2. Mitigation	3. Connectivity	4. Resilience
1. Congestion Reduction Reduce truck congestion on the Priority Freight Network	✓	✓		
2. Intermodal Enhancements Improve access to intermodal facilities	✓		✓	✓
3. Crash Prevention Eliminate fatal crashes involving large trucks	✓	✓		
4. Regional Coordination Coordinate corridor improvements with neighboring regions	✓		✓	
5. Network Redundancy Increase network redundancy within the region through improvement of secondary and detour routes				✓
6. Environmental Impact Reduction Reduce freight vehicles' and facilities' impact on air and water quality		✓		
7. Operator Improvements Improve conditions for freight operators by appropriately locating zoning and land use for support services (e.g. truck stops, mechanics' shops, etc.)		✓		✓
8. Strategic Development Focus investment in areas that can best support additional freight volume or that support freight-related workforces	✓	✓		
9. Freight Center Enhancement Optimize connections to freight centers (water/inland/air ports, railyards, etc.)	✓		✓	
10. Route Connectivity Increase the number of river crossings by rehabilitating existing bridges and building new bridges at optimal locations	✓		✓	
11. Transit Coordination Coordinate transit service expansions that service key employment centers and workforce housing	✓	✓	✓	

PERFORMANCE METRICS

Freight Performance Metrics

1. Pavement Condition

Percent of freight route pavement in good/bad condition.

2. Freight Tonnage

Annual Kilotons of Freight

- Modal (Truck, Rail, Air)
- By Commodity
- By Freight Route/Facility

3. Freight Traffic

Truck/Rail Volumes

4. Travel Time Reliability

Truck Travel Time Reliability Index

- County-wide
- By Each Facility (i.e. GA-20, US-411, etc.)

5. Crashes

Number of Crashes

- Severe
- Involving Large Trucks

6. Freight Employment

Employment in Freight Intensive Sectors

7. Freight-Related Commuting

Commuting Measurements for Freight Intensive Sectors

- Mode Split
- Length (minutes and miles)
- Origin-Destination

FREIGHT NETWORK

Although the Rome-Floyd MPO has primary influence in the physical assets of their transportation system, the regional freight network also encompasses support services related to freight logistics operations as well as the communities served by the freight system. This section catalogues the infrastructure assets, communities, cultural resources, and environmental resources associated with the freight system in the region.

INFRASTRUCTURE

This section summarizes the current infrastructure assets considered to be part of the Priority Freight Network for the Rome-Floyd region by mode. While the MPO is not an owner of these assets, it can allocate resources to assets and communities, and the MPO aims to do so in a way that equitably accomplishes the mission and goals of the regional freight plan.

Highways and Trucking



Across the nation, highways and trucks are the workhorses of freight movement. Here in northwest Georgia, the Floyd-Rome MPO region is no exception. Trucks carrying goods to and from major distribution centers in Atlanta, Chattanooga, and beyond rely on these efficient routes. A well-maintained and strategic highway system is vital not only for existing businesses but also for attracting new investment and jobs to the region.

Railroads



While trucks dominate overall freight movement, railroads remain the backbone for bulk goods across the United States, offering a fuel-efficient and cost-effective solution. This vital infrastructure is crucial for agricultural and manufacturing industries to efficiently transport raw materials and finished products.

Airports



Airports excel at moving high-value, time-sensitive goods long distances. This efficient and secure mode of transport is crucial for industries like pharmaceuticals, technology, and e-commerce. With the completion of the runway at the Richard B. Russell airport, the larger cargo aircraft open the doors to new domestic and international freight routes.

Pipelines



While most freight travels on roads and rails, a hidden network of pipelines silently carries essential resources across the US, including northwest Georgia. Operational petroleum product pipelines are a critical component of the regional freight system, delivering petroleum products and natural gas to intermodal facilities throughout the region.

Highway

With trucking dominating the current freight environment and volumes along local expected to increase by 2050, highways are the keystone of the region’s freight infrastructure. Serving both long-haul and first/last mile providers, roadways need to be properly constructed and maintained to extend their lifespan and the efficiency of public investment. Corridors along freight routes must also consider adjacent land use and communities to ensure that their operation does not create negative impacts or that impacts are sufficiently mitigated.

Figure 1 maps the Priority Freight Network roadways within the region, and “Appendix 1. List of Priority Freight Network Facilities” lists each facility in further detail.

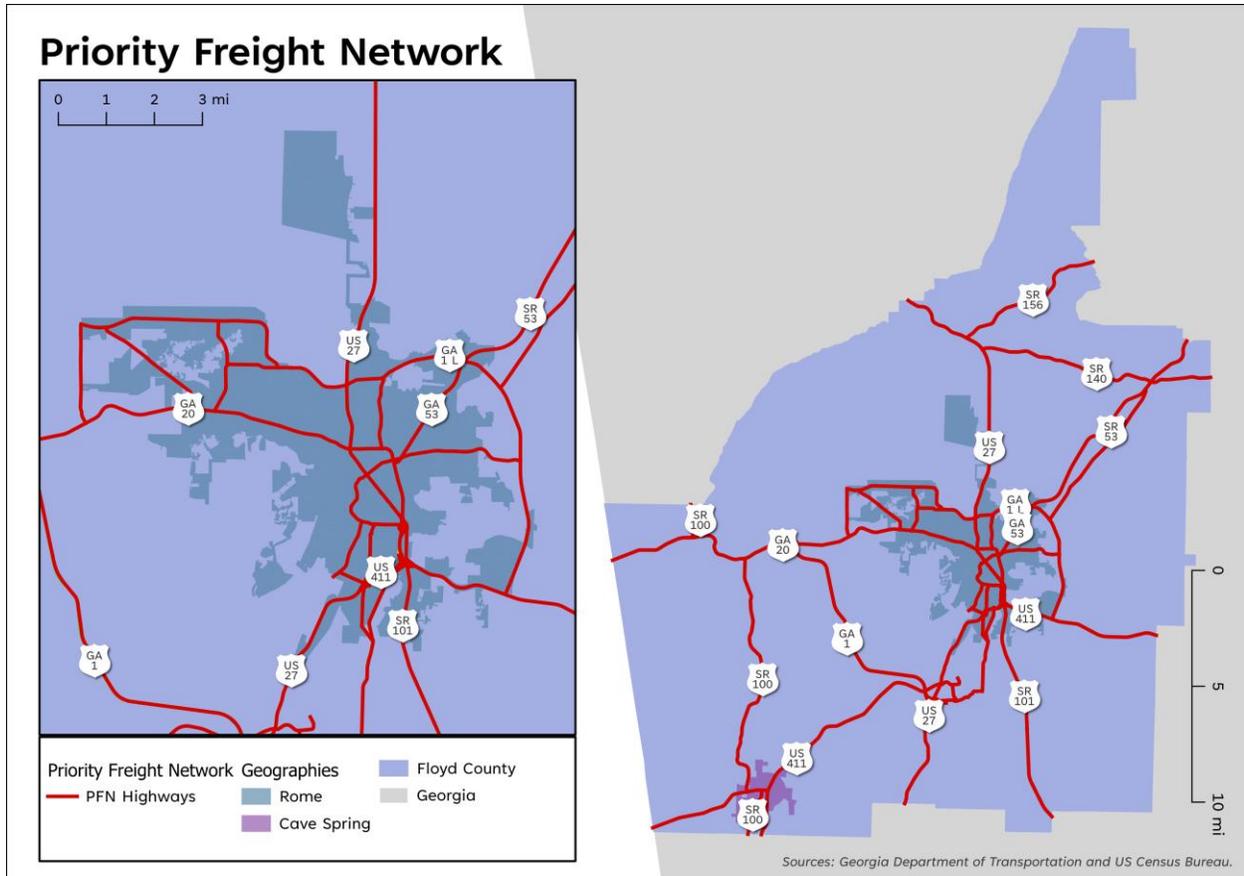


Figure 1. Priority Freight Network highways for Rome-Floyd MPO

Rail

Just as truck volumes are rising, rail tonnage is expected to increase nationally over the coming years. Rail is particularly important for agricultural products and heavy industrial uses, both of which are present in the region and represent important aspects of the regional economy. Additionally, passenger rail between Atlanta and Chattanooga is continuing to garner support from the broader area.

The resources required for development of new rail capacity are substantially more than even highway investments. Therefore, the region will need to coordinate closely with Norfolk Southern (which currently operates all rail within the region) and local industries to identify desired expansions well in advance of expected demand. Some of this demand may be handled by truck trips to the inland Appalachian Region Port and the Port of Savannah, so coordination with the Georgia Port Authority will also be important for rail-based freight in the region.

Figure 2 maps rail lines within the region, and Figure 3 provides broader context of rail, noting the location of other rail ports in the state.

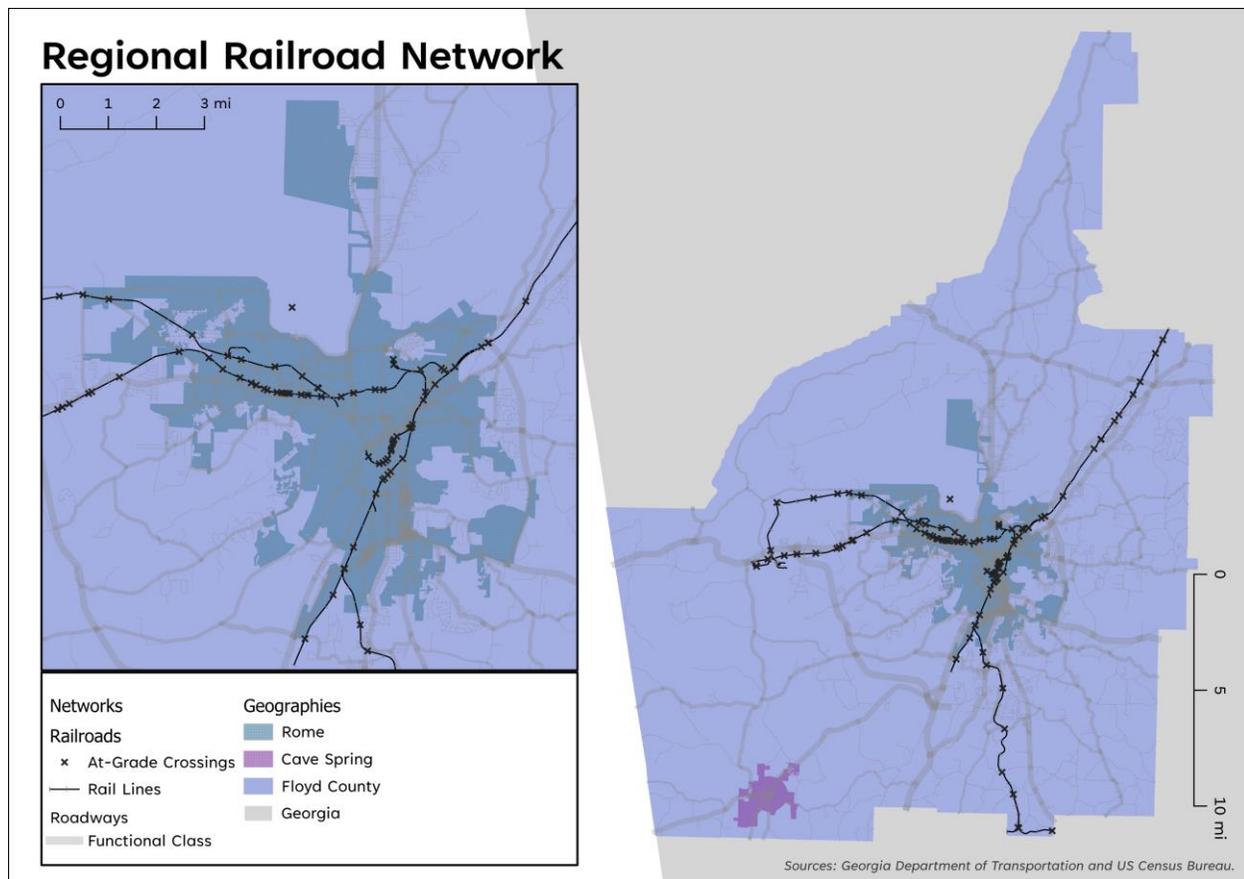


Figure 2. Regional railroad lines, at-grade crossings with roadways, and roadways by functional classification

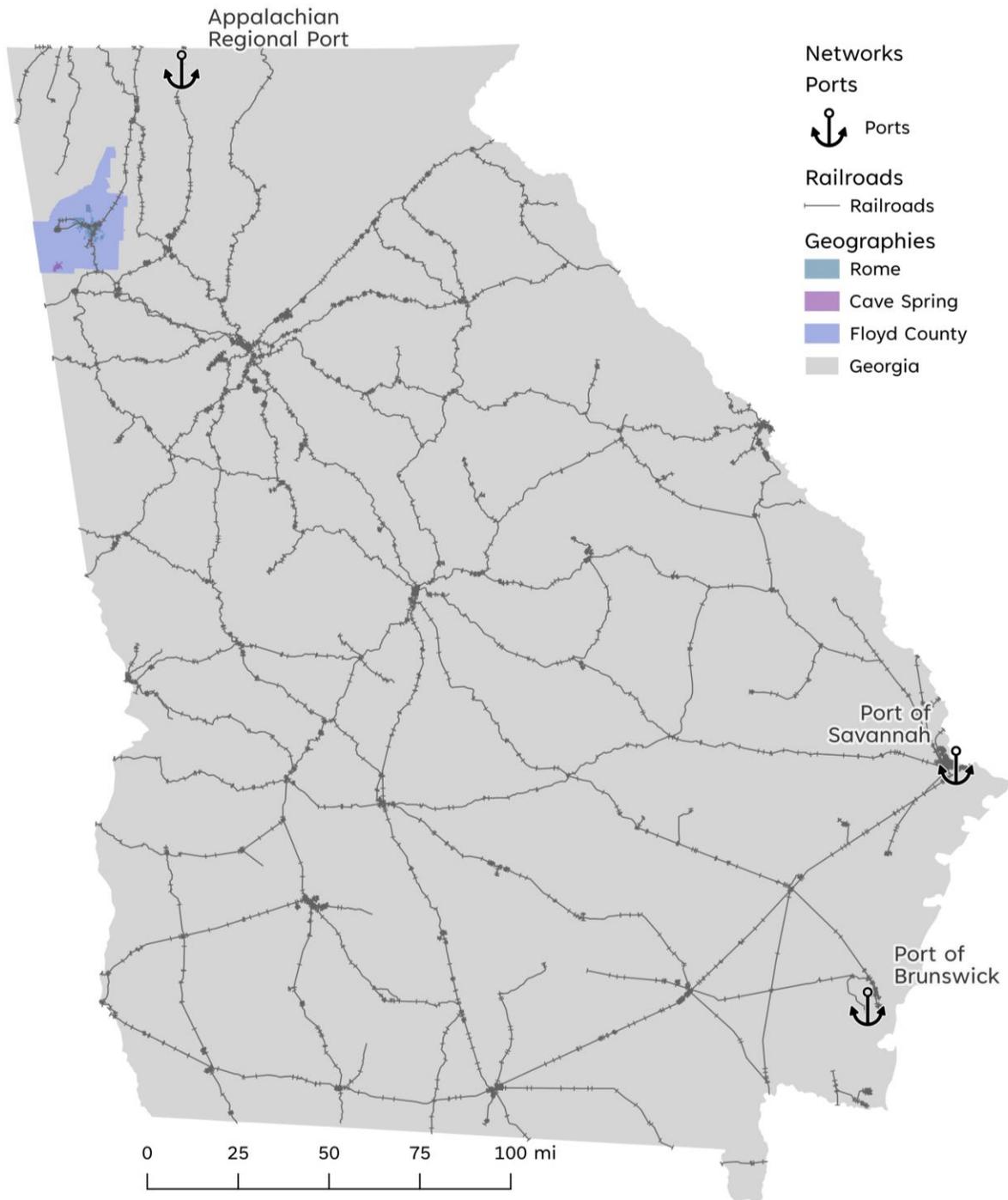


Figure 3. Railroads and ports in Georgia

Air

With the soon-to-be-completed extension of the runway at Richard B. Russell airport, air freight may soon become a reality for the Rome-Floyd region. To ensure the relevant facilities can accommodate this new freight mode while not over-investing without due reason, the MPO needs to continue coordinating with airport management, local government partners responsible for maintenance of facilities connecting the airport to the rest of the Priority Freight Network, and regional industry partners who would be able to utilize an air freight option closer than Hartsfield Jackson Airport.

Figure 4 shows a map of the Richard B. Russell airport and Figure 5 shows both a map of the highway facilities connecting the airport to the rest of the Priority Freight Network and the airport in the broader regional context.



Figure 4. Richard B. Russell Airport Aerial view, 1999.
Source: Microsoft Research Maps

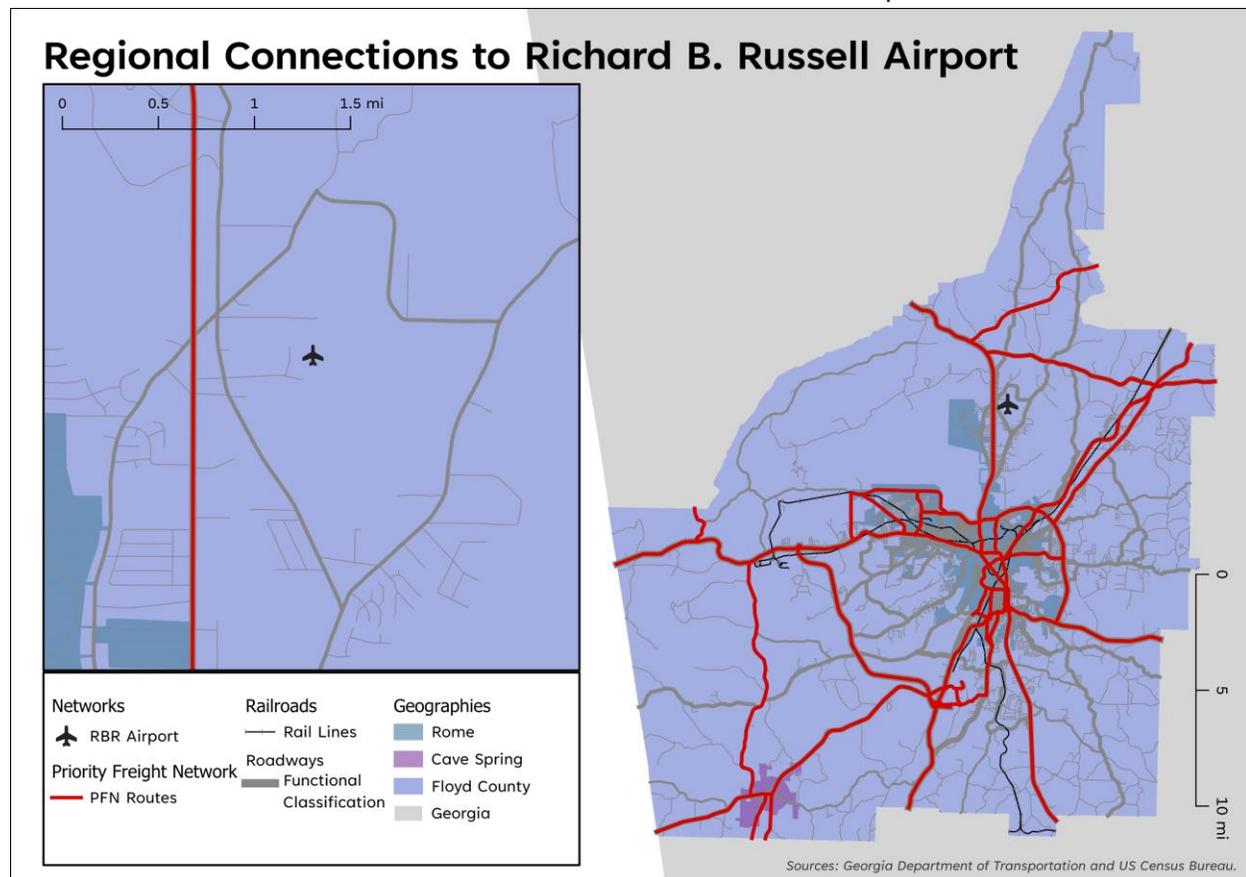


Figure 5. Regional highway connections to the Richard B. Russell airport and proximity to rail infrastructure

Pipeline

Although pipelines rarely interact with the region, there are several intermodal facilities that provide petroleum products to the area. Any disruptions to the lines themselves represent a significant risk to the region’s environment and communities. As a national security asset, data in this public document is necessarily limited; however, the MPO will coordinate with local partners and pipeline operators to identify locations and projects that will facilitate efficient operations and mitigate potential risks to the region. Figure 6 shows the region’s pipelines.

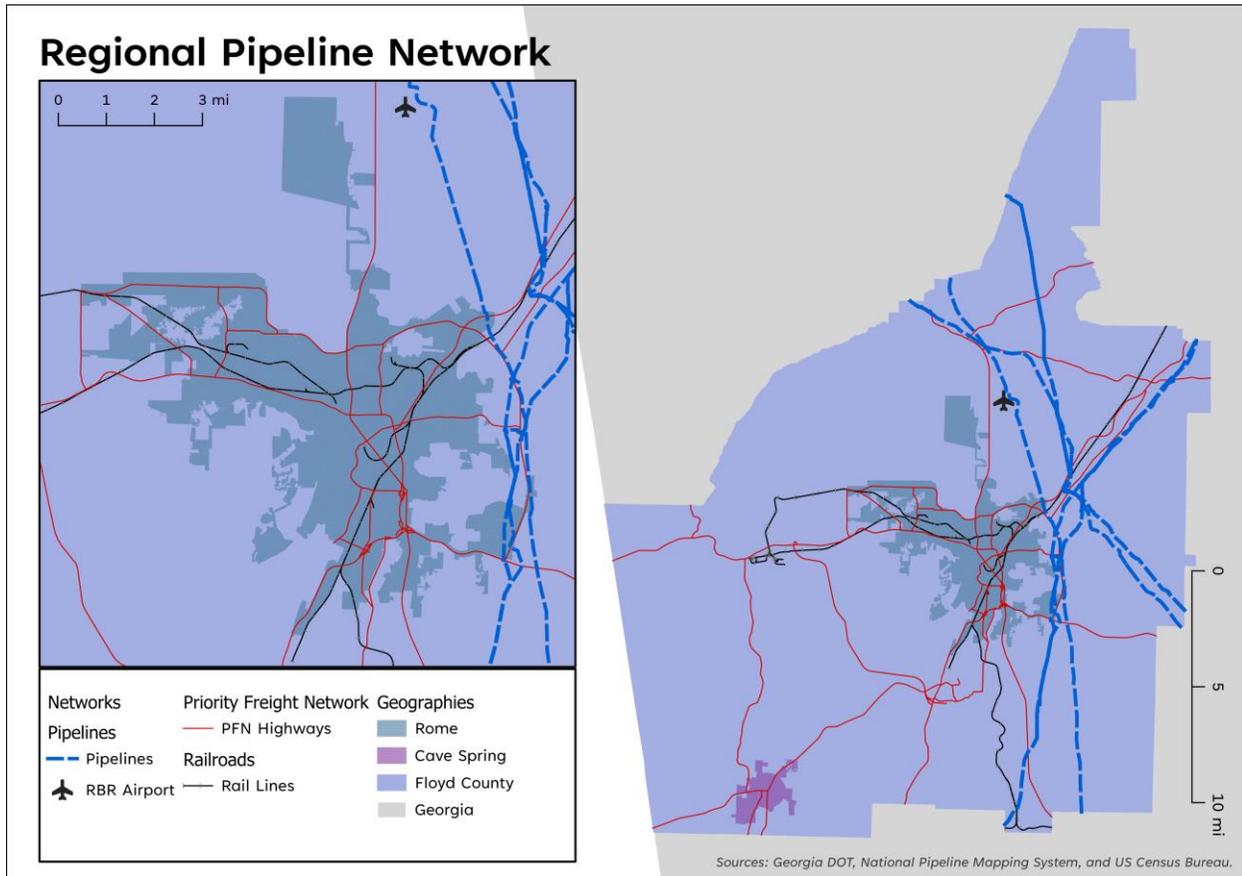


Figure 6. Regional pipelines displayed with Priority Freight Network highway, rail, and air facilities

COMMUNITY

Freight is one of the primary connections between people and the economy, but its negative impacts and costs are often much more geographically concentrated than its benefits. Therefore, it is important for the MPO to allocate resources in such a way that equitably mitigates these impacts while increasing the system’s efficiency. Freight-related decisions must properly align with community components related to disadvantaged communities, environmental resources, local economy, and land use.

Disadvantaged Communities

To understand the community impacts of freight in the region, the freight plan identified the subgroups that are more vulnerable to the negative externalities associated with freight vehicles using the federal Climate and Economic Justice Screening Tool (CEJST). CEJST summarizes a census tract populations’ vulnerability or disadvantage within the context of a series of variables that encompass not only race and income but also health sensitivities, vulnerabilities to pollution or climate change, and other factors.

In addition to a “disadvantaged” status, two of the census tracts in Rome’s downtown area are also Federal Opportunity Zones, qualifying these areas for additional funding opportunities.

A technical report on environmental and community impacts was developed to support the regional freight plan and can be reviewed for more information on why CEJST was selected to evaluate disadvantaged communities and the data resources used in the analysis.

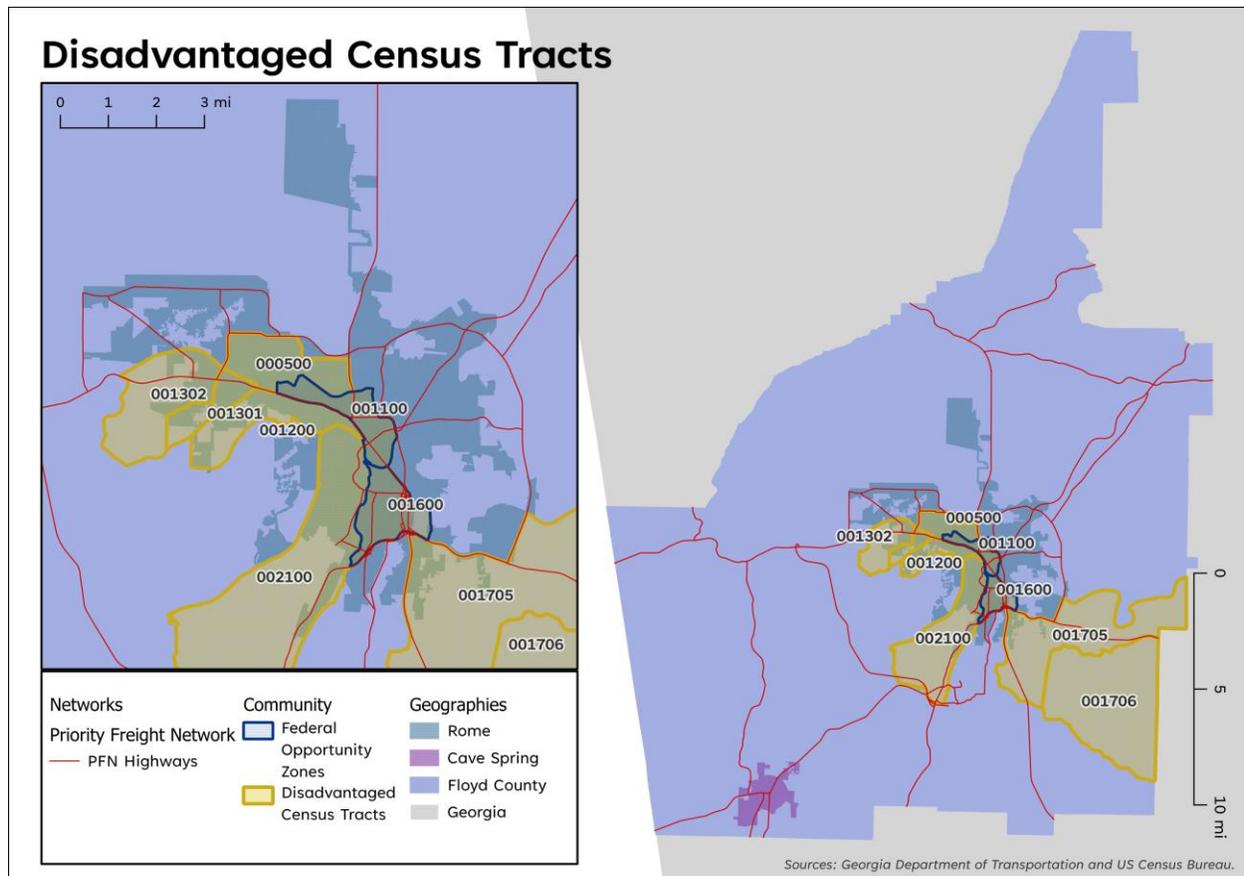


Figure 7. Disadvantaged census tracts and Federal Opportunity Zones with the Priority Freight Network highways

CEJST identifies seven census tracts as disadvantaged, and each of these contain or are bordered by segments of the region’s freight network as shown in Figure 7. They are also all above the 75th percentile for the proportion of population below 200 percent of the federal poverty line, and five out of seven are considered disadvantaged in the health category for high rates of outstanding health conditions (such as heart disease, asthma, and diabetes). These health conditions are a concern due to the possible environmental impacts of freight that can exacerbate or cause these conditions through the generation air pollution such as particulate matter (PM_{2.5} and PM₁₀). See Table 1 for details about which categories of burden each tract meets.

Several of these identified census tracts are considered disadvantaged for the category of workforce development. In these areas, freight traffic may still have disproportionate impacts, but there may also be opportunities for freight related workforce development opportunities in these communities.

Table 1. Disadvantaged Census Tracts' Categories of Burden

Tract GEOID	Categories of Burden	Federal Opportunity Zone?
13115001300	Heart Disease, Low Income, Poverty, High School Education	
13115000500	Former Defense Sites, Low Income, Linguistic Isolation, Poverty	
13115001200	Linguistic Isolation, High School Education	
13115001100	Diabetes, Heart Disease, Low Life Expectancy, Lack of Indoor Plumbing, Proximity to Risk Management Facility, Low Median Income, Poverty, Low Income, High School Education	✓
13115002100	Energy Cost, Diabetes, Heart Disease, Low Life Expectancy, Housing Cost, Low Income	
13115001600	Energy Cost, Asthma, Diabetes, Low Life Expectancy, Housing Cost, Low Income	✓
13115001702 (1705/1706)	Heart Disease, Lack of Indoor Plumbing, Low Income	

Environmental Resources

Negative externalities are the costs and consequences of freight transportation that fall outside of immediate economic transactions. Instead, they are borne by nearby communities rather than directly by the producers or consumers of the goods. These costs can be environmental, social, or economic, and they can significantly impact public health, well-being, and quality of life. The externalities with the most immediate impact for the Rome-Floyd region are water pollution, air pollution, and safety.

Water Quality

Both freight vehicles and freight facilities impact nearby water systems. Vehicles produce pollutants from break and tire wear, leaks and spills, localized air pollutants (such as particulate matter), and even debris from cargo. These pollutants can wash into local waterways directly or

through stormwater management systems. Freight facilities, especially roadways, are typically highly impervious areas, increasing stormwater runoff issues by limiting local absorption of stormwater and funneling accumulated pollutants into stormwater systems.

The Etowah and Oostanula Rivers converge into the Coosa River in downtown Rome, and Big Cedar Creek joins the system before crossing the state line into Alabama. These waterways are especially sensitive to runoff as several of the bridges that cross them are also key freight routes through the region. Additionally, the 2015 Georgia State Wildlife Action Plan identifies several subbasins in the region as high priorities for protection, as shown in Figure 8.

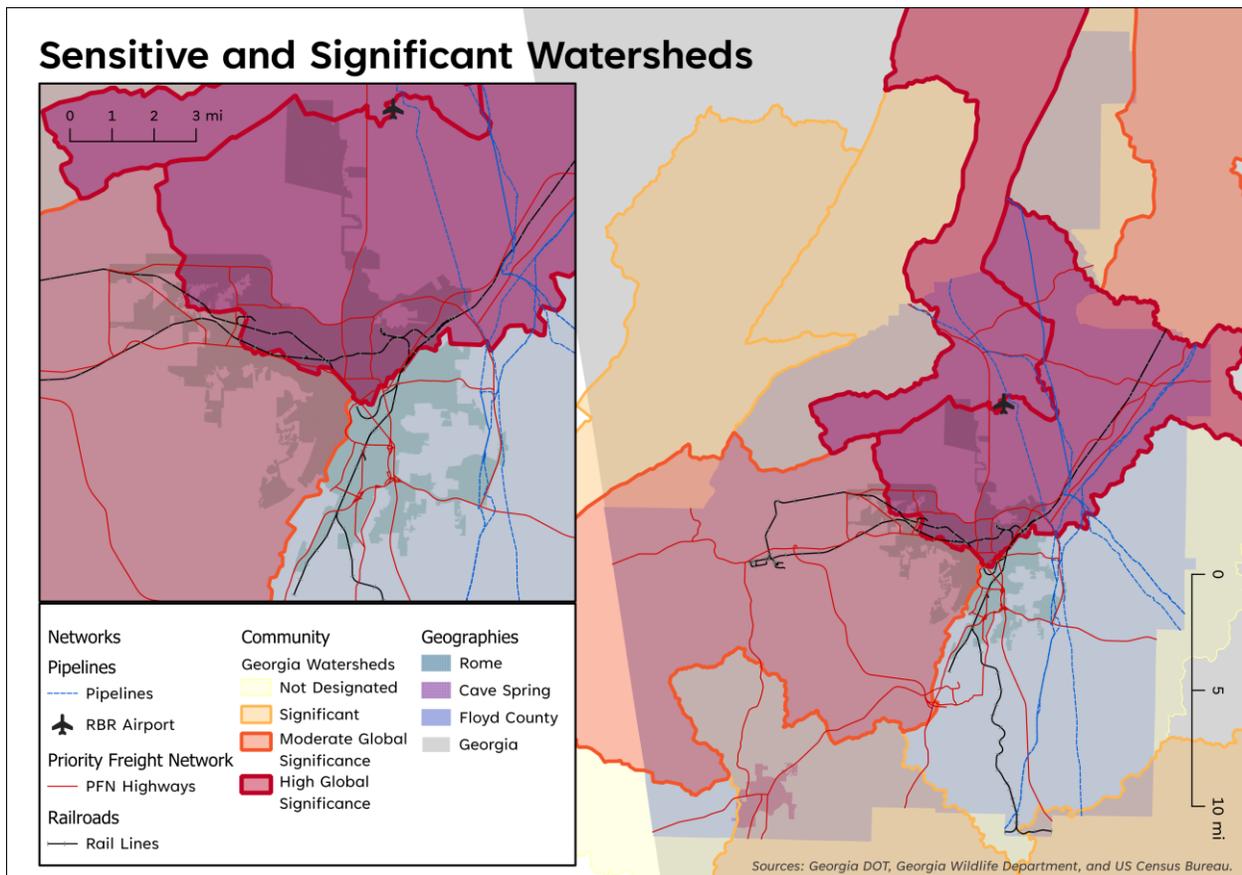


Figure 8. Sensitive and significant watersheds intersecting the Rome-Floyd region with Priority Freight Network highway, rail, air, and pipeline facilities

Air Quality

Freight impacts local and regional air quality through pollutants (e.g., vehicle emissions, brake and tire wear, etc.) and noise. There are many air pollutants that can be attributed to vehicle traffic including particulate matter (PM_{2.5} and PM₁₀), ozone, and nitrogen oxides (NO_x). These pollutants, as well as others, can severely impact local health. While alternative fuel vehicles are often “cleaner” — removing or reducing pollutants due to combustion — they are not a panacea. Alternative fuel vehicles still create air pollutants through brake and tire wear, as well as their inherent lifecycle.

Air quality came from the Environmental Protection Agency’s (EPA’s) EJScreen tool, which examines measures related to Air Toxic Cancer Risk, Diesel Particulate Matter, Traffic Proximity, and Ozone. EJScreen offers this data as a percentile index calculated as at a

national or state level baseline, and the Rome-Floyd freight plan uses the state-level index at the census tract level as shown in Figure 9. Noise data was estimated from the Bureau of Transportation Statistics' (BTS) Noise Map, shown in Figure 10, based on distance to a source by type (e.g., roadway, airport, railroad). Notably, noise pollution from high decibel sources like airports and trains are much more challenging to mitigate compared to highway noise.

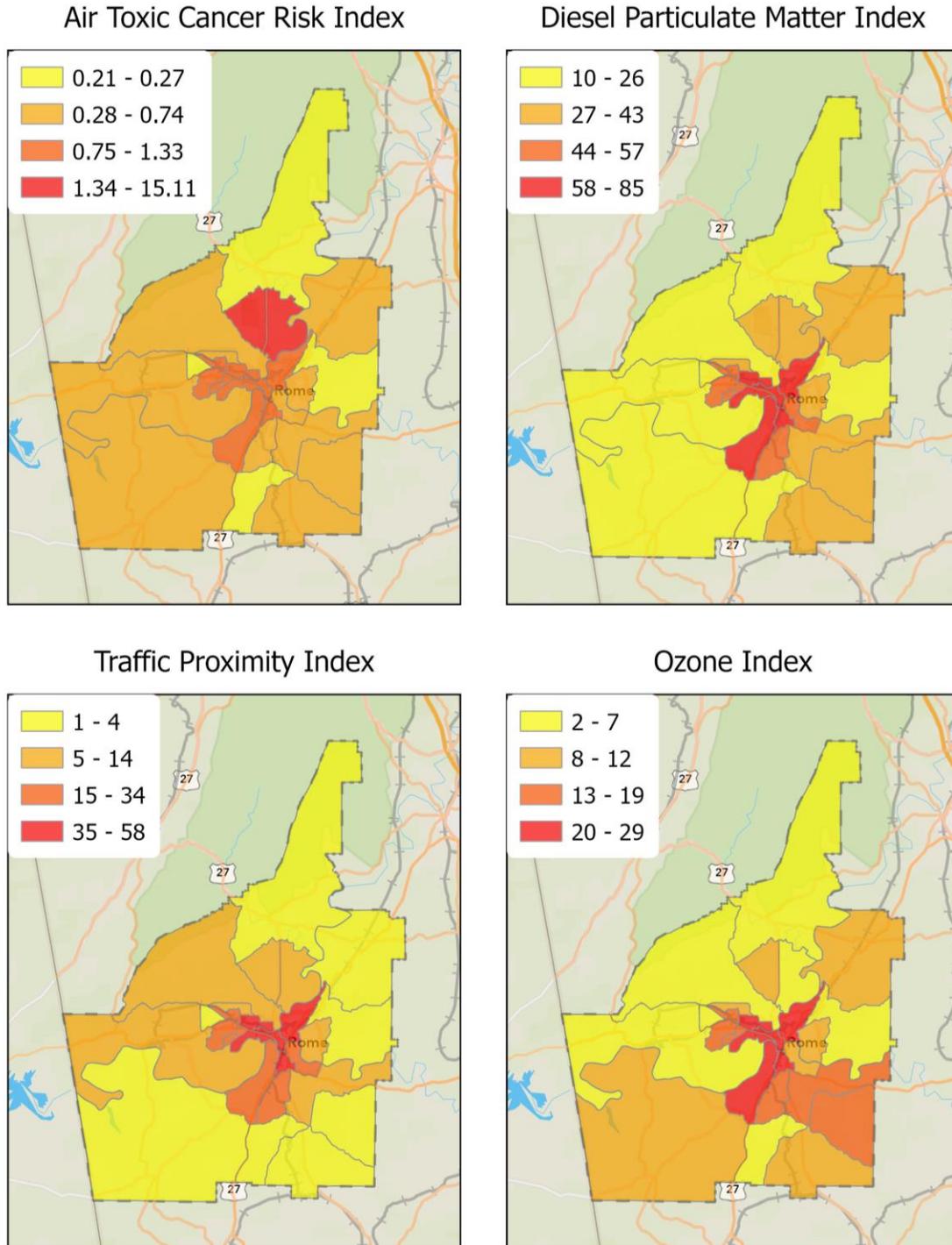


Figure 9. EPA EJScreen 2020 census tract percentile scores for air quality measures

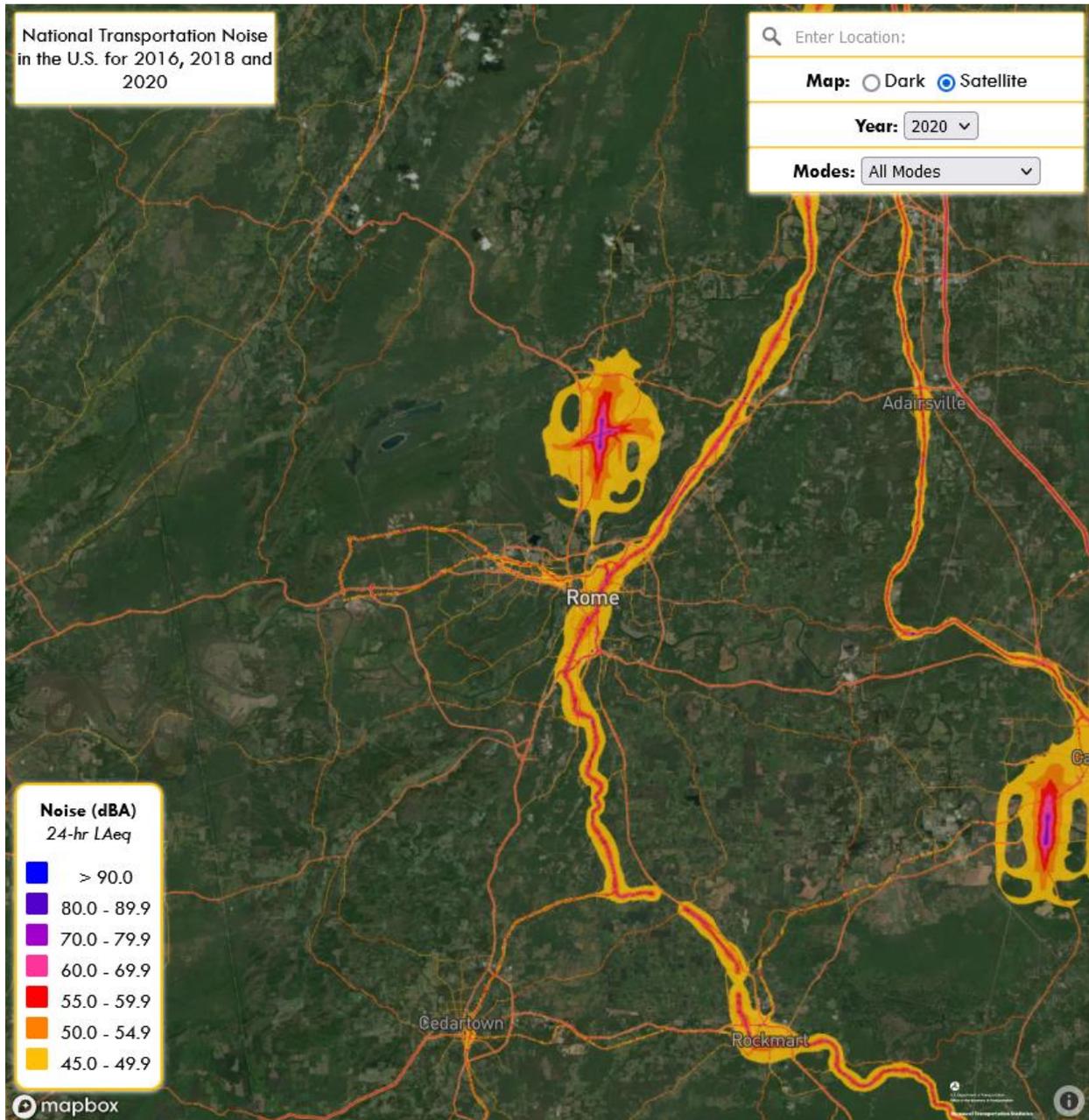


Figure 10. Bureau of Transportation Statistics Transportation Noise Map² for rail, roads, and aviation in and around the Rome-Floyd region

² National Transportation Noise Map (dot.gov):
<https://maps.dot.gov/BTS/NationalTransportationNoiseMap/>

Safety

Fatalities and injuries resulting from traffic crashes are, perhaps, the most direct way that freight can negatively impact community members, and freight vehicles' greater weight and inertia significantly increase the risk of serious harm, see Figure 12 for a map of crashes involving large trucks such as box delivery trucks or tractor trailers. Fortunately, the few railroad-related safety incidents that have occurred over the last decade have not resulted in any loss of life, see Figure 13 for a map of incident locations.

Our review of crashes and railroad incidents over the last ten years found that crashes involving large trucks or non-motorized users (i.e., pedestrians and cyclists) were more likely to result in fatalities or serious injuries, especially when both factors were present. While urban areas had far more crashes than rural areas, crashes were more likely to be severe in rural areas. See Figure 11 for a comparison of crash severities between urban and rural areas.

A full safety study is the next step in identifying specific interventions for specific locations, but separation of freight vehicles from vulnerable road users stands out as the most important step in creating a safer freight system for the region. A technical report on existing conditions was developed to support the Rome-Floyd regional freight plan and provides more safety improvement recommendations.

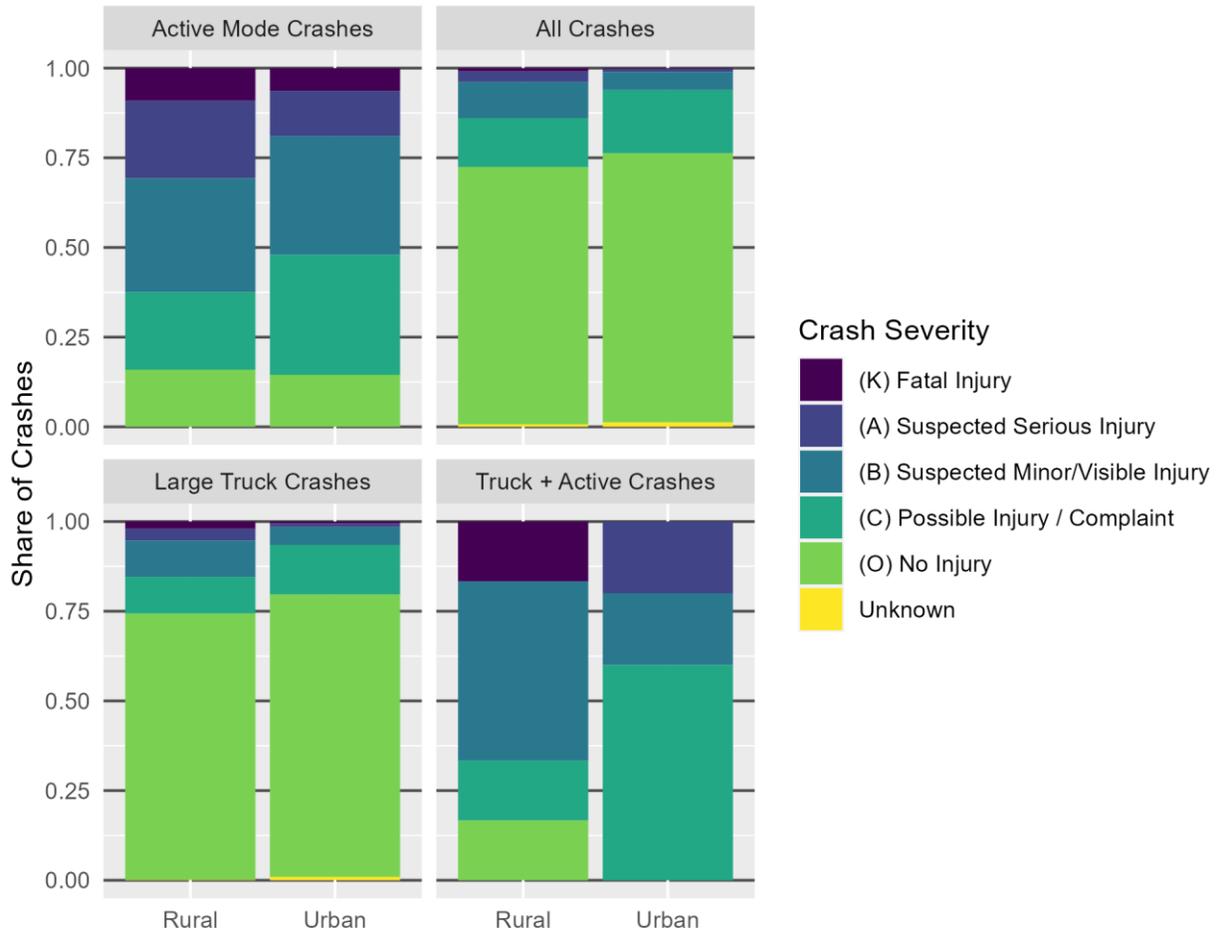


Figure 11. Share of crashes by severity and comparing urban and rural split for all crashes, crashes involving large trucks, crashes involving pedestrians or cyclists (active mode), and crashes involving large trucks

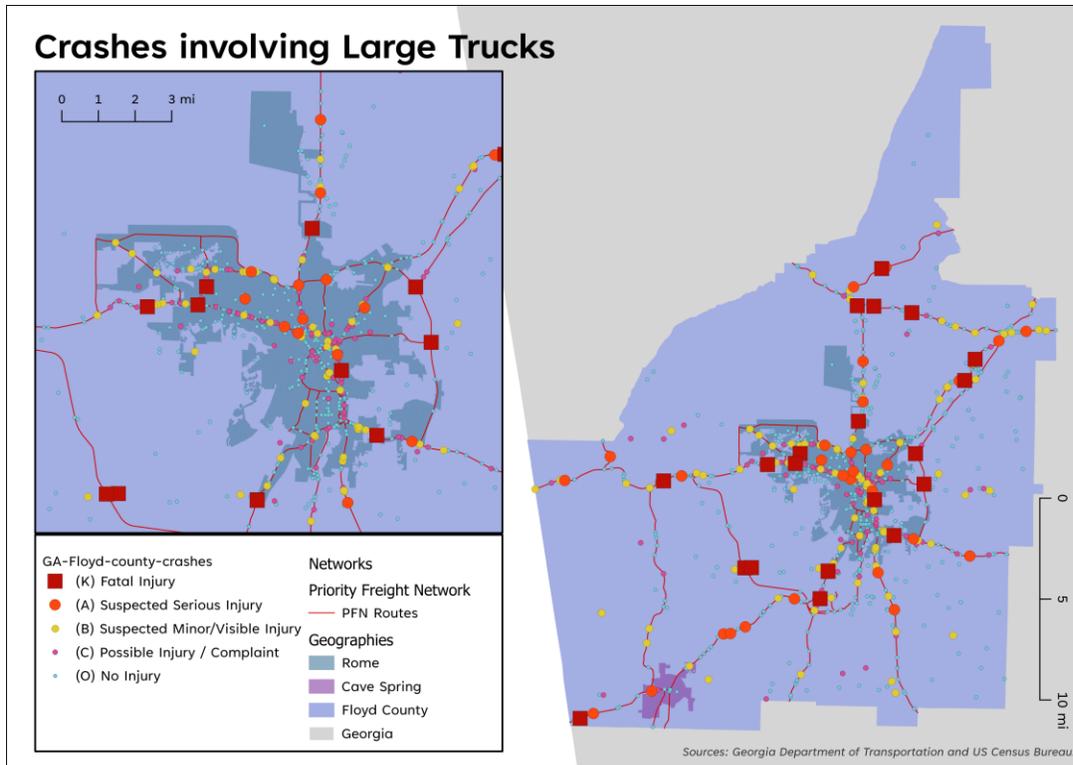


Figure 12. Crashes involving large trucks by severity category, 2013-2022

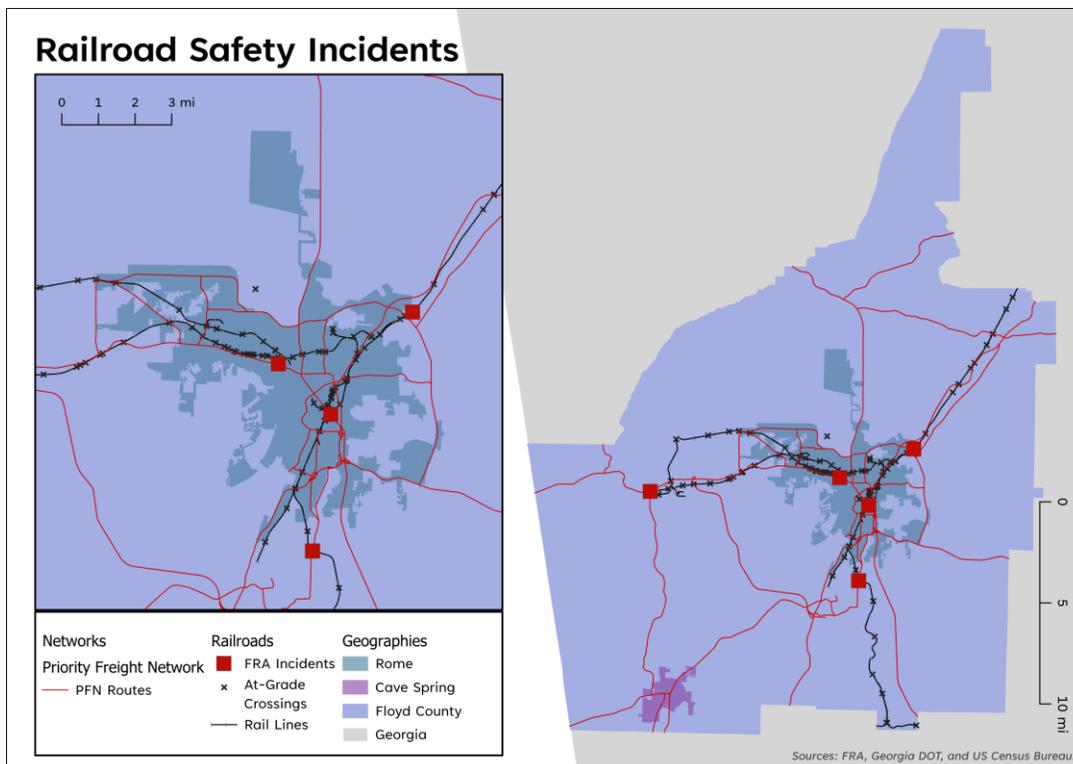


Figure 13. FRA-reported safety incidents, 2011-2022

Local Economy

While freight and logistics are not a primary component of the Rome-Floyd regional economy, sectors that rely on freight like manufacturing and wholesale trade have accounted for 45-50 percent of employment within the region. Some of these Freight Intensive Sectors (FIS) are doing well, with a high degree of local specialization and growing employment while others are declining. Manufacturing has shown resilience economic trends, and, with the Hyundai-SK battery plant coming online in the next few years, these trends are likely to continue.

Pairing strong economic forecasts for both freight tonnage and FIS employment over the next several years, the MPO will need to partner closely with industry and business leaders to take preventative action to maintain or even improve freight mobility within and through the region while also protecting environmental resources and ensuring that local communities realize the benefits of a robust freight economy rather than its negative impacts.

To identify key industries, the MPO used cluster analysis to identify industries with higher degrees of local specialization (location quotient) and whose growth could be attributed to local rather than national employment trends (total shift share). “Growing” FIS that had both were manufacturing (NAICS Sectors 31-33) and accommodations and food services (NAICS Sector 72). Emerging sectors are those who are growing but are not (yet) specialized, transforming sectors are locally specialized but may have flagging employment, and declining sectors are likely being outcompeted in other regions of the national or global economy. See the technical report on economic conditions for more details on cluster analysis and FIS employment in the region.

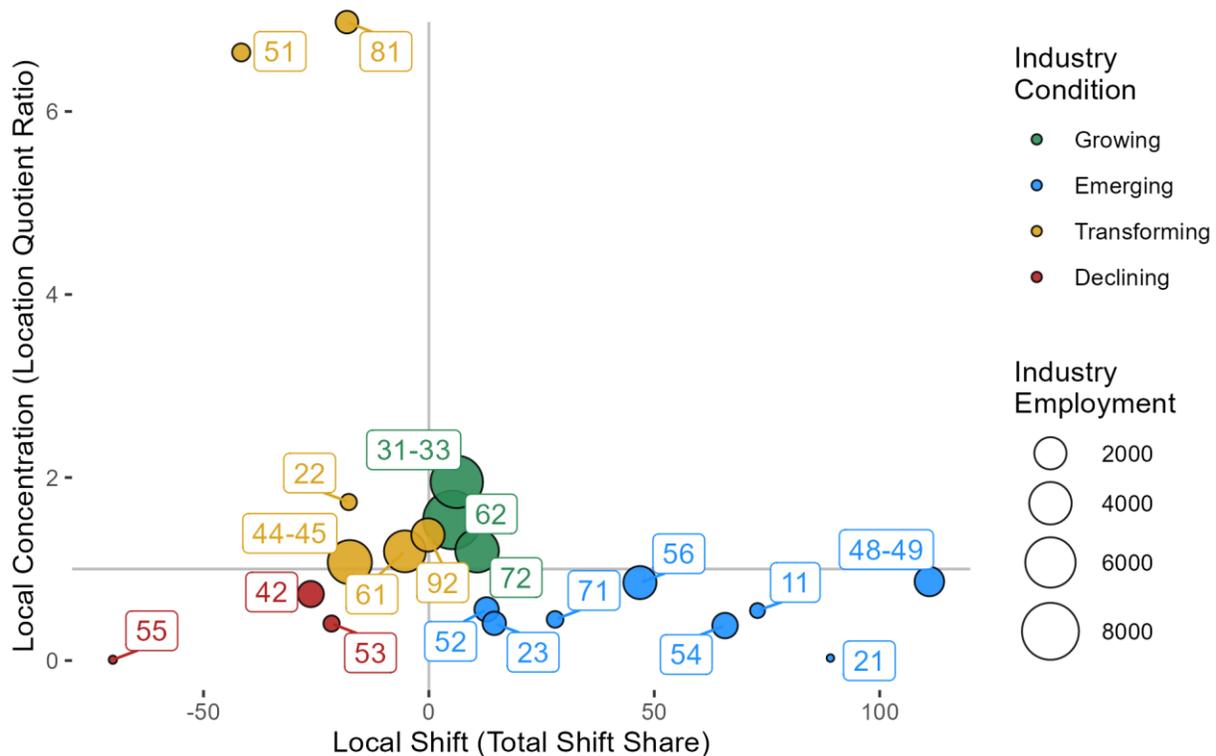


Figure 14. Cluster analysis results for NAICS sectors in the Rome-Floyd region, based on Bureau of Labor Statistics Quarterly Census of Employment and Wages

Land Use

The distribution of land uses shapes the patterns of local and regional freight movement. First/last mile delivery vehicles service residential areas more than ever, commercial districts require delivery of goods and supplies daily, and industrial centers generate large volumes of physical goods that move via global supply chain.

Given the forecasted growth in regional freight volumes, it is important for the Rome-Floyd MPO to serve as a coordinator between local municipalities to ensure that new freight-generating development is located effectively. This means sites that are **already** well served by both transportation and utility infrastructure, that can be easily reached by skilled workforces and disadvantaged communities, and that mitigate new impacts on environmental, cultural, and infrastructure resources.

Analysis conducted for the technical report on land use identified several general areas well suited to freight development within the Rome-Floyd region, shown in Figure 15. Coordination with economic development and local industry partners can facilitate the identification of site that require minimal new infrastructure investment from the community while also providing conditions that minimize operating costs for new businesses. Collaboration with the Rome Transit Department and community groups will be crucial in identifying areas for non-motorized and mass public transit connections between housing and key centers of employment. See the technical report on land use for more information on aligning zoning, land use, and development opportunities.

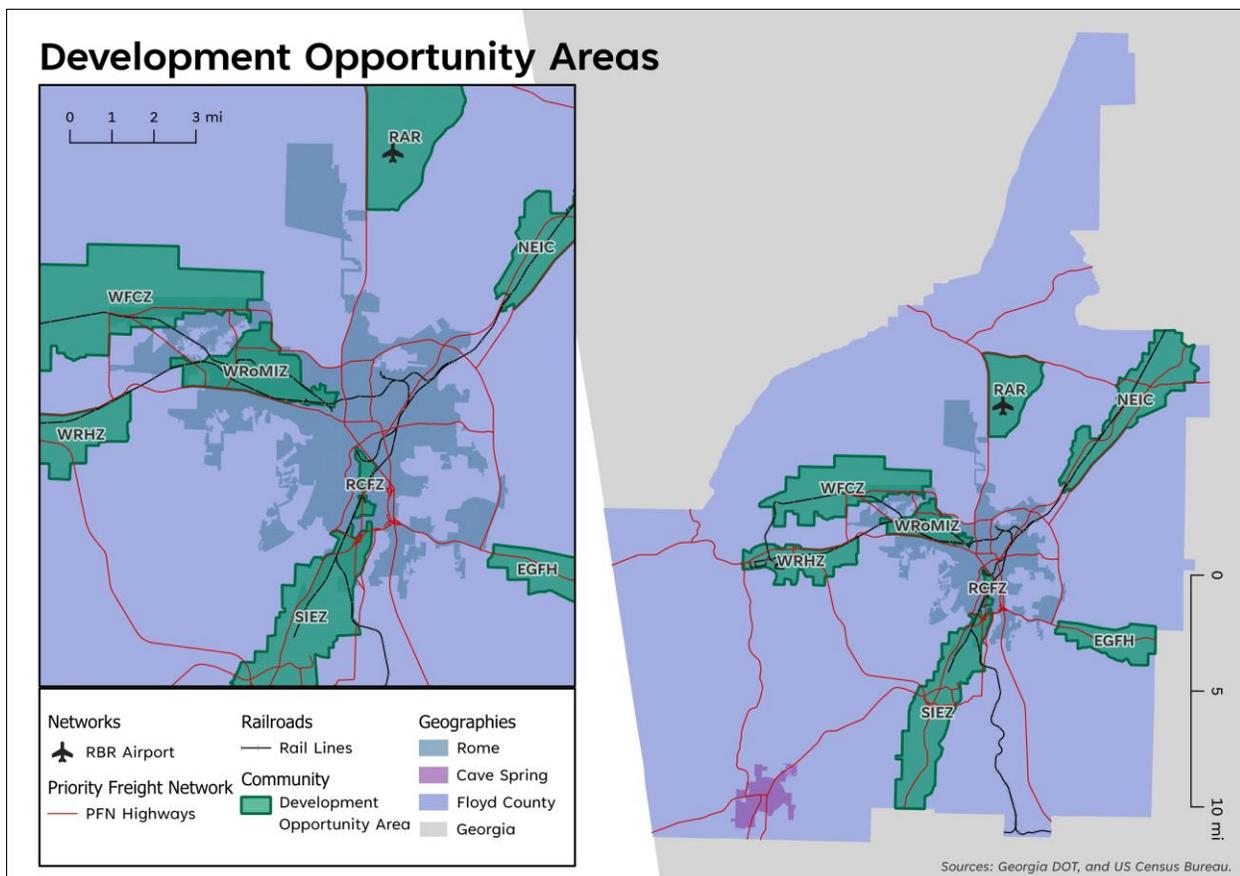


Figure 15. Development Opportunity Areas with highway, railroad, and airport facilities included

NEEDS

Based on the difference between current capacity and conditions and the expected future demands on the region’s freight system, the Rome-Floyd regional freight plan has identified needs that the MPO can address by directing funding or facilitating coordination and collaboration between various public and private organizations. This section covers the overall changed in expected demand, the identification of a “Priority Freight Network”, and a catalog of needs grouped into general categories.

EXPECTED DEMAND

Because rail and pipeline freight are privately operated, their needs and the investment required to meet those needs are outside the scope of MPO planning. However, truck and roadway-based freight are well within the scope of MPO directives and represent the primary mode of transportation for most freight into, through, and out of the region.

Aggregated to the entire region, projections out to 2050 show increases of 40-60 percent, see Figure 16 and Figure 17. Figure 18 shows truck trips at the facility level in 2022 as reported in the Freight Analysis Framework (FAF), and Figure 19 shows the percent change in trips along those same facilities by 2050. These substantial increases clearly indicate that the region will need to continue close coordination with local and state roadway owners, maintenance organizations, and transit agencies to ensure that the region’s transportation system is able to meet these future demands.

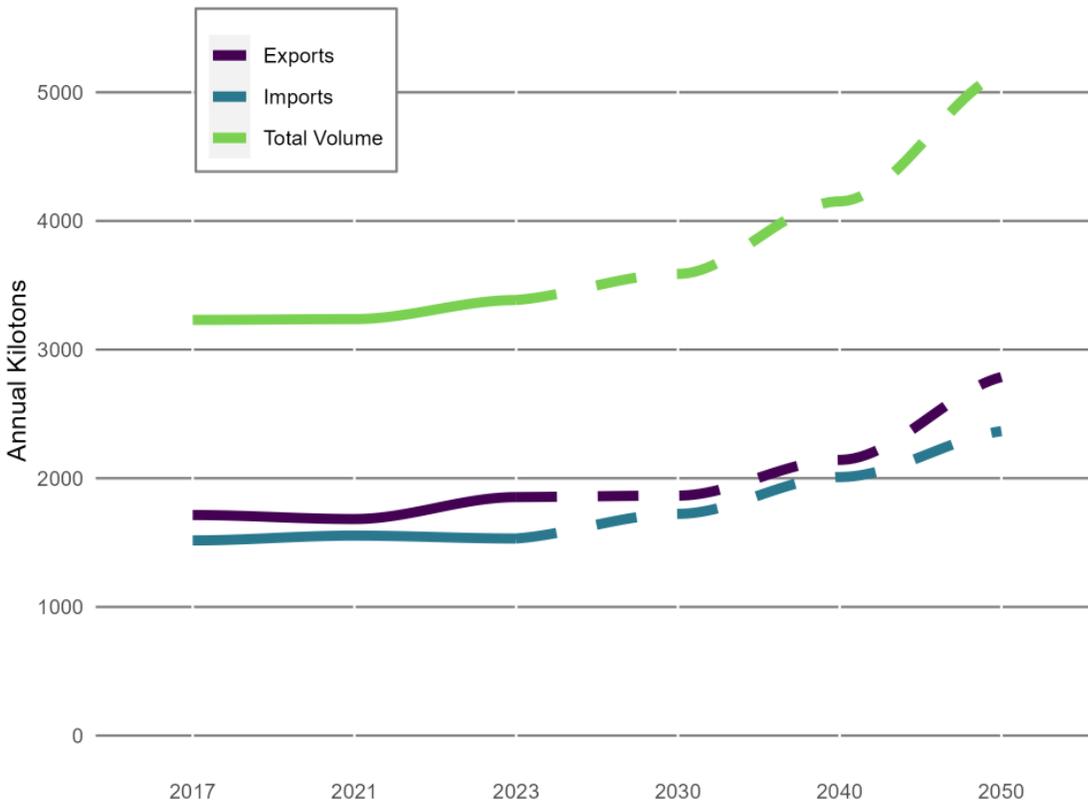


Figure 16. Freight volume forecast for the Rome-Floyd region based on disaggregated FAF commodity flow forecasts from 2023 to 2050

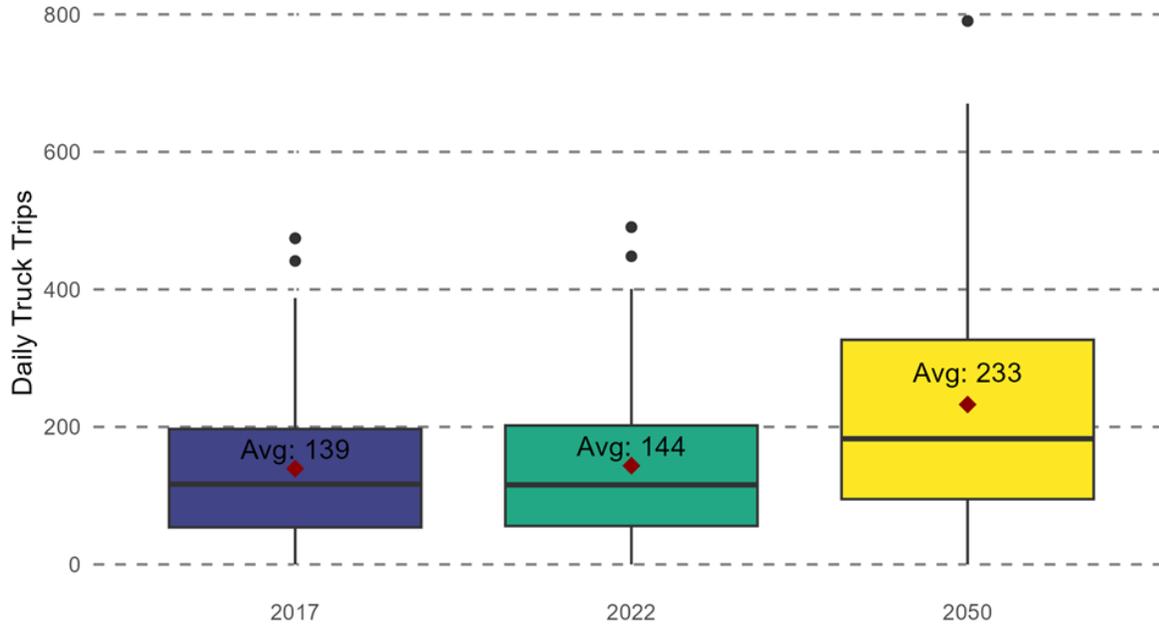


Figure 17. Distribution of average daily truck trips data from 2017 and 2022 and forecasted values for 2050 on FAF network facilities in the Rome-Floyd region

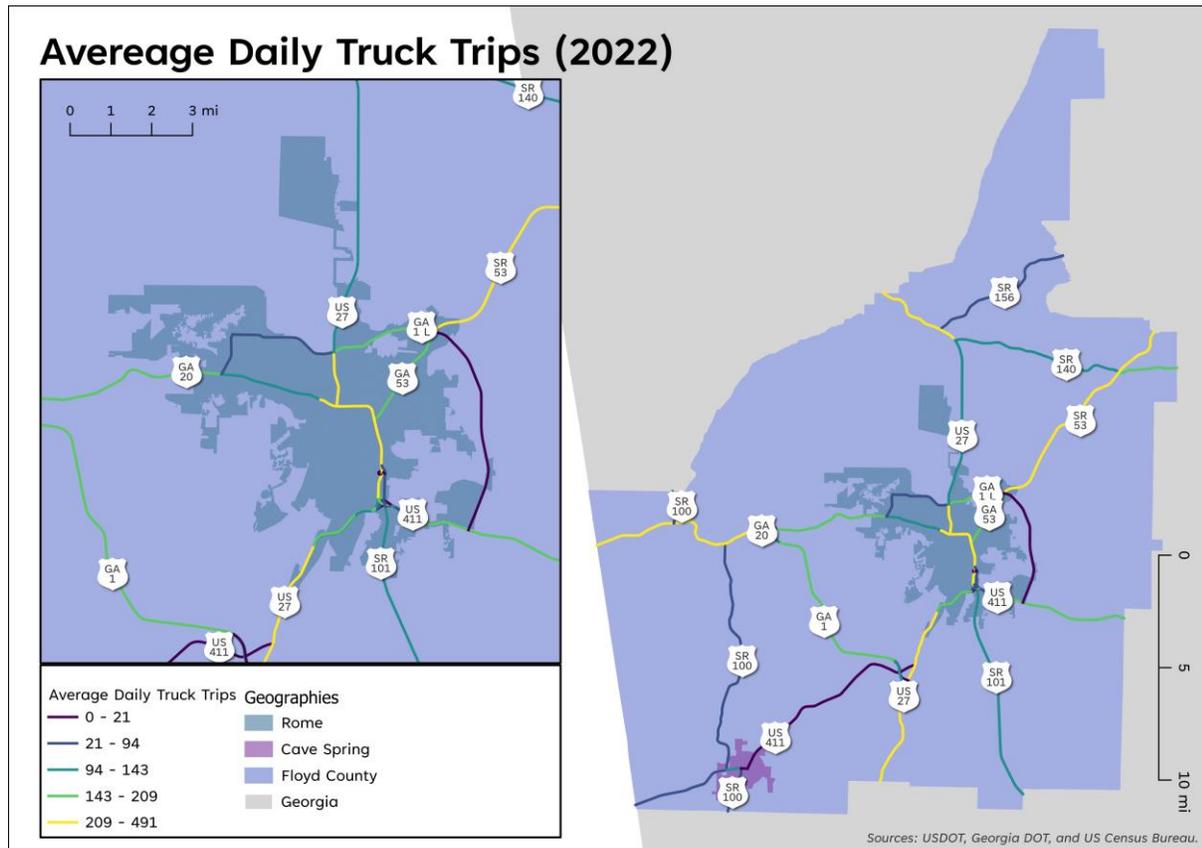


Figure 18. Average Daily Truck Trips on FAF facilities in 2022

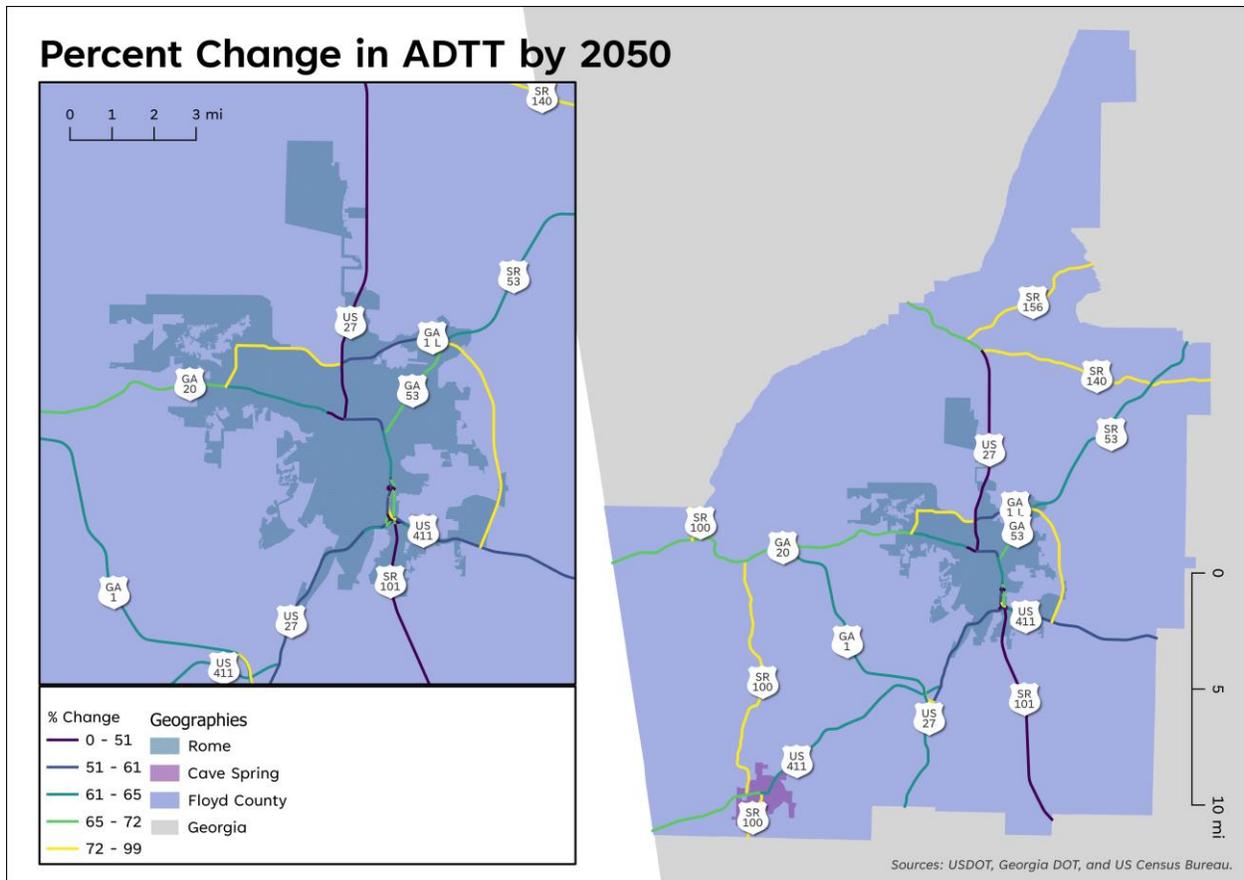


Figure 19. Percent change in Average Daily Truck Trips between 2022 and 2050 according to FAF network-level forecasts

PRIORITY FREIGHT NETWORK

Given the current volumes and expected increases in freight, the MPO developed a “Priority Freight Network” to focus freight-related investment and decision-making. Metrics for inclusion in the Priority Freight Network included presence in a national or state freight system, significant volumes of trucks on highways, intermodal and freight generation connections, dedicated freight infrastructure (e.g., pipelines and freight railroads), and assets identified by freight stakeholders.

Figure 20 shows a map of the Priority Freight Network including highway, railroad, airport, and pipeline facilities. The technical report on future conditions contains more information about the network’s development.

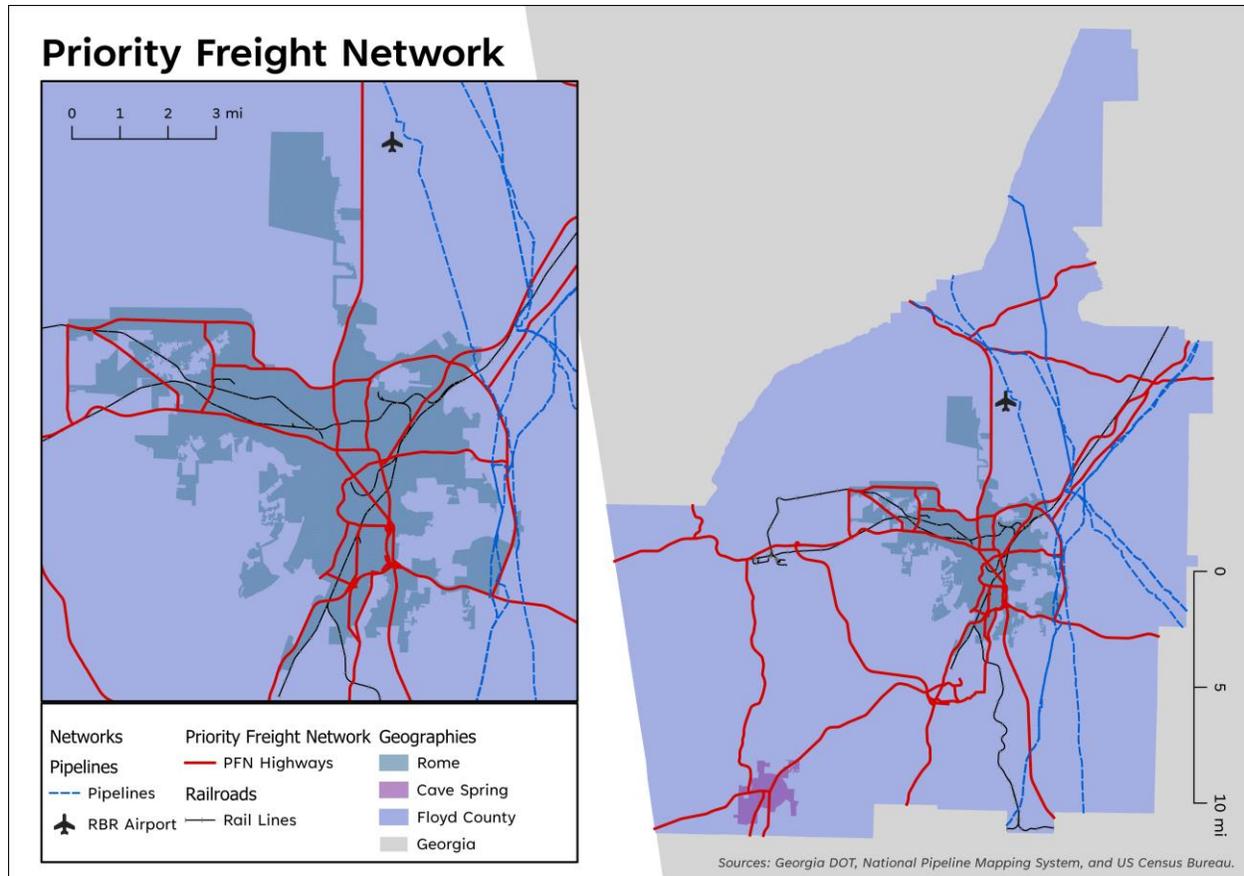


Figure 20. Rome-Floyd Priority Freight Network including highway, railroad, airport, and pipeline facilities

CATALOG OF NEEDS

The Rome-Floyd regional freight plan conducted a comprehensive analysis of freight in the region and identified needs, along with their impacts, and justifications. These needs are categorized in Table 2 into distinct clusters including infrastructure and facility development, economic and employment, freight and connectivity, environmental and health, safety and traffic management, and data and technology.

Table 2. Needs Identification by General Category

General Need	Specific Need	Impact	Justification
Infrastructure and Facility Development	Truck Traffic Redirection	Improved infrastructure	Redirecting trucks via the underutilized GA-1 Loop is essential to alleviate heightened truck traffic and congestion concerns in downtown Rome.
	Weight-Appropriate Bridge Upgrades	Enhancing freight mobility	The limited availability of weight-appropriate bridges for highway and rail freight necessitates routing improvements.
	Infrastructure Resilience	Ensuring future demand can be met	Preparing sufficient capacity to meet future demand is crucial for the region to maintain competitiveness and attract new industry investments.
	Airport Freight Enhancement	Enhances airport freight operations	Exploration of freight movement post-runway expansion will optimize airport operations and support regional growth.
	Intermodal Diversification	Diversifies freight transport options	Diversifying transport options with Railroads, Pipelines, and Airports is vital for efficient freight movement.
Economic and Employment	Land Use and Investment Coordination	Informed investment	Anticipated expansions at ports and airports indicate growth, and strategic pipeline distribution is crucial for efficient transport.
	Logistics Workforce Training	Meeting industry growth	Attracting qualified professionals and connecting them to career resources will enhance the logistics workforce.
	Stakeholder Engagement	Ensures comprehensive and inclusive approach	Active stakeholder engagement ensures comprehensive and inclusive development.
	Transit Expansion	Bolsters local employment opportunities	Leveraging grants to expand transit services post-COVID-19 is vital for improving local transportation and bolstering employment.

General Need	Specific Need	Impact	Justification
Freight and Connectivity	Truck route improvements	Reducing congestion	Roadway connectivity to major hubs like I-75, Atlanta, and Chattanooga are crucial for efficient freight movements.
	Railway Efficiency Improvement	Enhancing freight movement	Enhancing rail connections to major freight hubs in Chattanooga and Atlanta improves rail freight efficiency and potentially decreases truck traffic.
	Freight Network Improvement	Streamlines statewide freight operations	Identifying and emphasizing routes integral to Georgia's statewide freight network streamlines freight operations.
	Bridge Safety and Truck Efficiency	Improve freight efficiency	Addressing vertical clearance and weight limit issues improves freight vehicle movements and ensures safety. Investments should be focuses on the Priority Freight Network.
Environmental and Health	Water Quality Conservation	Environmental protection	Mitigating water quality impacts due to stormwater runoff and pollutants is crucial for environmental conservation.
	Noise Reduction Measures	Reducing environmental impact	Implementing noise mitigations, especially around high traffic highways, airports, and railways, enhances environmental quality and reduces disruptions.
	Sustainable Industrial Practices	Balancing growth and conservation	Balancing industrial growth with environmentally friendly practices preserves natural landscapes and promotes sustainable development.
	Equitable Environmental Mitigations in Freight Development Areas	Sustainable freight development	Developing environmental mitigations for increased freight traffic in development areas, especially overlapping with disadvantaged communities, is critical for equitable growth and enhanced quality of life.
Safety and Traffic Management	Improved Downtown Traffic Flow	Enhances traffic flow and reduces emissions caused by idling, and improves efficiency	Alleviating congestion in Downtown Rome improves traffic level of service, increases vehicular efficiency, and enhances safety through more predictable behaviors from facility users.

General Need	Specific Need	Impact	Justification
	Safe Residential Roadway Design	Maintains neighborhood safety and character	Ensuring residential roadways within the priority freight network are designed for complete streets that include trucks, passenger vehicles, bicycles, and pedestrians to maintain neighborhood safety and character with improved quality of life.
Data and Technology	Intelligent Transportation Systems Deployment	Improved efficiency and reduced costs	Data expertise investment optimizes routes, improves efficiency, and reduces operational costs.
	Enhanced Data Management	Enhances identification of essential routes	Identifying key routes and addressing redundancy and connectivity issues improves overall freight network efficiency.

RECOMMENDATIONS

Given the analyses of current freight transportation conditions and the catalog of needs, the Rome-Floyd freight plan proposes the recommendations listed in Table 3. These recommendations were developed in coordination with the Freight Advisory Group as part of the third stakeholder engagement meeting. Continued collaboration and coordination between the MPO, public transportation agencies and departments, industry groups, and other freight stakeholders will be crucial in implementing these recommendations. See the technical report on recommendations and the next section in this report for further discussion on their implementation.

Table 3. Final Recommendations

Category	Recommendation
 <p>Traffic Management</p>	<p>Address congested intersections: Identify and prioritize improvements for intersections on freight routes that contribute to high truck travel times. When an intersection involves a state route, coordinate with GDOT and local governments to appropriately prioritize investment within the region.</p> <p>Limit trucks in Downtown Rome: Currently, large trucks use facilities that go through the core of the City of Rome rather than the GA-1 Loop. Some of these vehicles have destinations within the area, but pass-through traffic should be directed around the urban core. Through-traffic restrictions may simultaneously alleviate congestion and improve truck travel time reliability.</p> <p>Promote transit and non-motorized modes: Reducing the number of single-occupancy-vehicles on regional routes frees up room for projected increases in freight trips, lowers emissions from both more vehicles and a congestion-related delay emissions, and improves public health outcomes when combined with safety and environmental investments. Promoting non-motorized modes does require close coordination with transit agencies and with government entities in control of land-use such that income-appropriate housing is available near routes that connect to employment and other amenities.</p>
 <p>Infrastructure Improvements</p>	<p>Improve accessibility for the GA-1 Loop: Continued investment in facility quality, traffic controls, and wayfinding will support the shift of freight vehicles from downtown facilities to the GA-1 Loop. This shift can also be supported by careful adjustments to long-term land use plans along the corridor.</p> <p>Support airport freight routing: With the completion of the runway extension at the Richard B. Russell airport, airfreight becomes a possibility for the region. To prepare for this, wayfinding, maintenance, and roadway geometry should be reviewed along connecting US-27 and adjacent roadways (e.g., Jones Mill Road NE, McGrady Road NE, Old Dalton Road NE, and Warren Road NE) to the rest of the regional freight network.</p>

Category	Recommendation
	<p>Maintain intermodal facilities: Other than the airport, local governments do not operate any intermodal facilities. However, publicly owned roadways and bridges that provide access to these facilities from the freight network should be monitored for maintenance and upgrades as needed.</p> <p>Address freight-limiting bridges: There are several existing local highway and rail bridges in the region that limit potential detour options and freight routing. Where there are significant differences between existing and required capacity, the region should evaluate alternative funding options to help increase intra-region freight network resilience.</p> <p>Identify sites for new bridges for network connectivity and efficiency: The limits imposed on the region’s transportation network have resulted in less-than optimal freight routes. To address this, the region can evaluate potential bridge crossings by comparing their respective changes to network connectivity and average travel distance to freight network gateways into and out of the region.</p> <p>Monitor and repair primary and detour freight routes: Ensure that primary and detour freight routes are included in regular pavement monitoring and include facility’s status as a component of the freight network when programming maintenance funds.</p>
 <p>Transit Alignment</p>	<p>Align transit with industry and community needs: Regularly provide Rome Transit Department with data about commuter origins, destinations, and routes with details about sectors, those sectors’ projected long-term growth and stability, and user needs and cost-burdens.</p> <p>Identify most impactful service expansions: Coordinate with Rome Transit Department, freight intensive sector employers, and region residents to understand what route expansions (new routes or service times) would provide the community with the greatest utility.</p>
 <p>Zoning and Parking</p>	<p>Zone and distribute truck parking effectively: Because trucking plays a key role in northern Georgia’s economy, the ability for drivers to work safely is crucial to maintaining regional competitiveness and equity.</p> <ul style="list-style-type: none"> ▪ Agencies that control land use in the region should ensure that truck parking remains an available use within appropriate industrial and commercial zones and work with freight generators, recipients, and operators to balance parking accessibility and community character. ▪ Private operators, freight and logistics firms, and industry groups should coordinate with public agencies to identify existing land or Right-of-Way where parking can be easily integrated while still being safe and in proximity to the services drivers need such as food, lodging, and fuel. ▪ Across all of this, the Floyd-Rome MPO can act as a convener to bring together a disparate group of stakeholders to address a complex topic that requires intense cooperation to execute well.

Category	Recommendation
	<p>Create delivery or loading zones for downtown areas: Where deliveries or pick-ups of freight or even passengers regularly occur, portions of on-street parking should be clearly designated as “loading” or “drop-off” zones with pedestrian access and protections. The Floyd-Rome MPO can coordinate the development of guidelines for local governments to then implement.</p> <p>Focus support in opportunity areas: Efforts for economic development associated with freight intensive sectors should focus on the Development Opportunity Areas described in the Land Use technical report as well as the Federal Opportunity Zones near downtown Rome. However, site selection should only consider locations with existing infrastructure support (e.g., electrical, water, roadway capacity, etc.). An example would be coordinate zoning ordinances across local governments for industrial areas and local freight uses.</p>
 <p>Equity and Environmental Measures</p>	<p>Install runoff filters: Where freight routes and sensitive environmental features converge, facility owners should implement run-off filters according to existing GDOT environmental protection guidance.</p> <p>Accommodate alternative fuels: If alternative fuels (natural gas, hydrogen, and electricity) significantly permeate the freight fleets serving the region, stakeholders should coordinate with public agencies to identify sites that would experience the least impact from new infrastructure, especially along US-27 which is already in the FHWA Alternative Fuels Corridor Program.</p> <p>Evaluate disparate freight impacts: Explore potential metrics or measures to assess whether disadvantaged or at-risk communities are disproportionately impacted by freight related environmental or safety concerns, and work to ensure that at least 40 percent of freight-related investment occurs in disadvantaged communities (per Justice40 federal policy). Although the region is not out-of-compliance with air quality standards, measurements of local air quality could be used to better evaluate air quality impacts due to freight on disadvantaged communities.</p> <p>Install noise barriers: Measure and evaluate impacts of noise levels along regional freight routes and install noise barriers in the areas of greatest or most disproportionate impacts.</p> <p>Daylight crosswalks: Improve crosswalk lighting, especially along commuter routes and along truck and rail routes to better protect pedestrians from freight vehicles.</p>
 <p>Safety Measures</p>	<p>Restrict idling in neighborhoods: To protect air quality in areas where people are more exposed to vehicle emissions, enforce no-idling or low-idling policies in residential zones and areas with high pedestrian or cyclist traffic.</p> <p>Study truck safety interventions: In concert with transportation safety planning, evaluate interventions that have been shown to best address freight-related safety concerns.</p>

Category	Recommendation
	<p>Eliminate at-grade railroad crossings: As freight rail volumes and train lengths increase, pursue funding opportunities to eliminate at-grade rail crossings to simultaneously address associated safety and congestion issues.</p> <p>Conduct a system safety assessment: Assess trends in crashes, how they relate to freight vehicles, and what countermeasures would best reduce or eliminate crashes involving freight vehicles.</p>
 <p>Coordination and Collaboration</p>	<p>Align investments with adjacent regions: Regularly meet with municipal, county, and regional staff for areas that surround the Floyd-Rome region to ensure that long-term investment priorities and decisions align where possible to maximize their joint impact on community-oriented outcomes.</p> <p>Partner with training programs: Work with technical education and training programs in the region (such as WorkSource Georgia) to identify key industries' workforce needs.</p> <p>Engage freight stakeholders regularly: Meet with the freight stakeholder group established during this planning process every 12-18 months.</p> <p>Integrate freight into disaster response: Add freight considerations into disaster response exercises and planning to mitigate impacts to the system in the case of an emergency.</p>
 <p>Data Utilization</p>	<p>Analyze origin-destination data for commuters and freight tonnage: To understand the distribution of freight trips and commutes for workers in Freight Intensive Sectors, evaluate their distributions as data becomes available from sources such as Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics (LEHD LODES) and the Regional Integrated Transportation Information System (RITIS).</p> <p>Monitor economic macro-trends related to freight: Continue to monitor trends and update forecasts related to industry employment, housing, safety, and other macro-socio-economic trends as they pertain to freight.</p> <p>Collect system performance data: Where performance measure data is not available for all facilities, investigate the costs associated with obtaining local data to supplement performance evaluation and forecasting.</p>
 <p>Community Maintenance</p>	<p>Street Cleaning: Frequently clean regional freight routes near residential areas and sensitive environmental features.</p> <p>Residential Route Quality: Prioritize pavement maintenance for high-truck trip facilities in residential areas.</p>

MOVING FREIGHT FORWARD

With the planning process complete, the Rome-Floyd MPO can shift its focus to implementation. Every conversation with stakeholders emphasized the region is a home to “doers” who were more interested in what they could contribute rather than the minutia of technical analyses. Therefore, this section provides guidance for utilizing the freight plan technical reports to guide actions to improve the movement of goods and people into, through, and out of the region.

UTILIZING THIS PLAN

In addition to this Executive Summary, there are six technical reports associated with the 2024 Rome-Floyd MPO Freight Plan. The first four reports focus on topics related to freight in the region (i.e., existing freight conditions, land use, regional economy, and community and environment respectively), and the last two discuss regional needs and proposed recommendations. Table 4 summarizes the contents of each report and a sample of recommended action items for the MPO and its partners to implement to improve the movement of goods and people in the region. Refer to the technical report on recommendations for further information.

Table 4. Freight Plan Technical Report Contents

Technical Report	Primary Contents	Action Item Example
Existing Conditions	<ul style="list-style-type: none"> Current Freight Characteristics Forecasted Volume and Demand Infrastructure Deficiencies Safety Analysis 	Identify important corridors and intermodal facilities
Land Use	<ul style="list-style-type: none"> Freight Facility Locations Zoning Conformance Development Opportunities 	Coordinate with local agencies to identify areas that are best suited to freight-intensive development
Economic Analysis	<ul style="list-style-type: none"> Base Economy Assessment Relationships and Trends Future Economic Outlook 	Collaborate with emerging industries to determine policies and strategies that will best support their freight needs
Community and Environment	<ul style="list-style-type: none"> Environmental Justice Screening Negative Impacts Mitigation 	Direct investment towards communities that have been historically disadvantaged
Needs Assessment	<ul style="list-style-type: none"> Freight Movement Summary Priority Freight Network Needs Identification 	Reassess how well a project meets the needs it is intended to address
Recommendations	<ul style="list-style-type: none"> Strategic Framework Recommendations 	Prioritize recommendation implementation

REGIONAL COORDINATION

Although the Rome-Floyd MPO has a legislated responsibility to support the improvement of the transportation system, it does not control many of the components of the system. Therefore, collaboration with local governments, transportation operators, community stakeholders, and even adjacent regions is required to effectively implement the vision of the MPO and make progress towards its goals.

This plan recommends that the Rome-Floyd MPO engage two groups for continued coordination meetings.

- Meetings with the entire freight advisory group:
 - Occur annually.
 - Discuss specific next steps, identify top priorities from plan recommendations, and make assignments for the individuals or organizations who can implement them.
 - Provide feedback on performance over the past year.
- Meetings with individual members or groups on the advisory committee:
 - Occur every 2-3 years or more frequently as needed.
 - Focus on the organization’s needs and how the MPO can support them, and vice versa.
 - Check in on any action items the individual or organization is responsible for implementing.

WHAT NEXT?

The Rome-Floyd MPO should follow the next steps to implement this plan:

- **Adapt decision-making** based on plan findings.
- **Implement recommendations** in collaboration with regional partners.
- **Track** transportation system **performance**.
- **Make adjustments** along the way.

Adapt Decision Making

As the MPO continues to make decisions regarding policy and resource allocation, staff should provide decision-makers with relevant freight information contained in this document. Providing such information will support data-informed choices that reflect the goals and objectives of this regional freight plan.

Implement Recommendations

In collaboration with regional partners and stakeholders, the Rome-Floyd MPO shall begin the implementation of recommendations as recommended in the process presented below. The technical report on recommendations discusses the implementation process in further detail.



1. **Prioritization and Sequencing**
 - a. Review and refine recommendations with further details.
 - b. Develop a scoring system to prioritize recommendations.
 - c. Engage stakeholders to weigh criteria.
 - d. Set up a phased plan for implementation.



2. **Implementation**
 - a. Create detailed proposals for high-priority recommendations.
 - b. Pursue funding.
 - c. Prepare for project requirements.
 - d. Engage stakeholders and the public to gather input.



3. Delivery and Monitoring

- a. Determine project leadership.
- b. Fund and deliver projects.
- c. Monitor performance metrics.
- d. Regularly evaluate project impacts.

Track Performance

Retrospective evaluation of investment decisions is one of the best ways to improve decision-making in the future, but it requires the collection of qualitative and quantitative information for that purpose. In this case, qualitative feedback comes from annual advisory group meetings, and quantitative data is based on the performance metrics discussed earlier.

In coordination with the advisory group, the MPO shall set targets for performance measures in line with the timeline for federal performance measures and targets reporting. These targets will provide the benchmark for progress, and connecting targets to action is key to creating meaningful feedback loops that result in changes that produce positive community outcomes. For example, significant deviation from or advancement towards the targets can trigger an amendment process for the latest Transportation Improvement Program prioritization.

Make Adjustments

Like all other planning documents, this freight plan makes assumptions about the future. Therefore, the Rome-Floyd MPO may need to adjust forecasts, needs, and recommendations as time progresses. Accounting for uncertainty with techniques like contingency plans or performance evaluations allows for decisions to perform better across a wider range of possible futures. For example, if truck volumes do not increase as expected, the GA-1 Loop will require fewer improvements to support the diversion of freight through traffic around downtown Rome.

CONCLUSION

Efficient and reliable freight movement is critical for the economy in the Rome-Floyd region. With strong economic trends for several Freight-Intensive Sectors within the region and in adjacent areas and forecasted growth in regional goods movement, the region's transportation infrastructure and supporting policies will need to adapt to accommodate these needs. To adequately support this growth while protecting residents' quality of life, the MPO and its partners must continue to strategically invest in infrastructure improvements, promoting innovative freight movement solutions, and foster collaboration among stakeholders.

Some strategies will take more coordination than others. Addressing congestion on state routes will require GDOT cooperation and possibly greater contributions from the region to expedite key projects. Unifying land-use to properly locate trucking support services and street-level loading areas will also require significant coordination, but these projects' funding requirements would be much lower. Meanwhile, integrating freight considerations into disaster response planning, economic development policies, or transit expansion prioritization are all opportunities to act based on this plan with relatively little effort or investment.

In the end, the success of this plan hinges on continued commitment, concrete implementation assignments, and adaptation to changing circumstances. These principles will prevent this freight plan from becoming a static document; and prioritizing economic vitality alongside resident well-being will ensure the region thrives as a center of commerce while remaining a desirable place to live, work, raise families, and find friends.

APPENDICES

APPENDIX 1. LIST OF PRIORITY FREIGHT NETWORK FACILITIES

Table 5. Priority Freight Network Facilities

Name	Route ID	From Mile	To Mile
US-27	1000100000100INC	280.3	306.9
US-411	1000100005300INC	0	36.1
GA-1	1115100074600INC	0	11.1
GA-1 Loop	11151000001LOINC	0	11.8
GA-20	1000100002000INC	0	27.4
GA-53	1000100005300INC	0	36.1
SR-100	1000100010000INC	103.0	121.3
SR-101	1000100010100INC	31.0	43.5
SR-140	1000100014000INC	0	10.3
SR-156	1000100015600INC	0	6.8
12 th St SE	1115200105309INC	0	0.8
Booze Mountain Road	1115200063300INC	0	2.3
Calhoun Highway / Road NE	1115200079600INC	0.7	7.8
Cave Spring Street / Road SW	1115200135209INC	0	1.3
Cedar Avenue SW	1115200112309INC	0	1.1
	1115200051709INC	0.3	0.5
Darlington Drive SW	1115200110809INC	0	0.7
E Main Street	1115200112409INC	0	1.9
Huffaker Road NW	1115200139109INC	0	2.2
Industrial Boulevard SE	1115200083500INC	0	1.1
Maple Road SE	1115200063100INC	3.6	7.3
Mathis Drive	1115200141909INC	0	1.0
Old Lindale Road SE	1115200031600INC	0	1.3
Riverside Parkway NE	1115200118409INC	0	1.5
Superior Drive SE	1115200083600INC	0	0.7
Technology Parkway	1115200110109INC	0	4.5
	1115200064700INC	7.5	7.8
Woods Road NW	1115200025200INC	0	2.1